

SIENA COLLEGE

2017-2018

Catalog, Volume 76



Siena College
A Liberal Arts Institution with a Franciscan and Catholic Tradition
2017-18 Catalog, Volume 76

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Right to Modify: All information in this publication pertains to the 2017-2018 academic year to the extent that the information was available on the catalog preparation date. The information in this catalog is not to be intended as creating a binding contract between the student and Siena College. The College reserves the right to change requirements and regulations as necessary at any time without prior notice. This includes the right to modify admission and academic requirements, to change courses, graduation requirements, tuition, fees, and any other regulations affecting the student body.

ACADEMIC CALENDAR SEPT 2017-AUGUST 2018			
	September 2017		March 2018
	4 Labor Day		9 Mid-Semester Grades Due
	5 First Day of Classes		15 Last Day to Drop with a "W" Grade
	12 Last Day to Add a Course		15 Last Day to Exercise Pass/Fail Option
	12 Last Day to Change from Credit to Audit	26-30	Spring Break/Easter Holiday
	October 2017		April 2018
	13 Holiday - No Classes		2 Easter Holiday
	27 Mid-Semester Grades Due		13 Last Day to Drop with "WP" or "WF"
	November 2017		30 Last Day of Classes
	3 Last Day to Drop with a "W" Grade		May 2018
	3 Last Day to Exercise Pass/Fail Option		1 Reading Day
	22-24 Thanksgiving Recess	2,3,4,5	Final Exams
	December 2017		13 Commencement
	1 Last Day to Drop with "WP" or "WF"		21 Summer Session Terms 1, 3 and 4 begin
	11 Last Day of Classes		28 Memorial Day Holiday- No Classes
	12 Reading Day		June 2018
13,14,15,16	Final Exams		1 Last Day to Complete 'I' grade from Spring
	January 2018		15 Summer Session Term 1 Final Exams
	15 MLK Holiday - No Classes		18 Summer Session Term 2 Begins
	16 First Day of Classes		29 Summer Session Term 3 Final Exams
	19 Last Day to Complete 'I' grade from Fall		July 2018
	23 Last Day to Add a Course		4 Independence Day - No Classes
	23 Last Day to Change from Credit to Audit		10 Summer Session Term 5 Begins
	February 2018		13 Summer Session Terms 2 and 4 Final Exams
	22-23 Winter Break		August 2018
			3 Summer Session Term 5 Final Exams
			24 Last Day to Complete 'I' grade from Summer
Fall Minutes (2250 req)	Fall scheduled class days	Spring Minutes (2250 req)	Spring scheduled class days
2340	MWF: 39	2400	MWF: 40
2295	TTh: 27	2295	TTh: 27
2295	MW: 27	2295	MW: 27
2450	M or T only: 14	2450	T or W only: 14
2275	W or Th only: 13	2275	M or Th only: 13

Siena College

Siena College, founded in 1937, is a co-educational, independent, liberal arts college with a Franciscan and Catholic tradition. Situated in the attractive residential community of Loudonville, New York, Siena has an ideal location. It is easily reached from New York City, Boston, and Buffalo, and is in the center of New York State's Capital District.

The internal growth and development of Siena has been continuous. In response to the changing needs of our times, the Siena curriculum allows flexibility and individual choice for all undergraduates. Students serve with faculty on many campus committees. The College is governed by an independent, self-perpetuating Board of Trustees. An active Board of Associate Trustees serves to strengthen the relationship between the campus and the surrounding community.

Recognizing that its students come from varied racial, ethnic and cultural backgrounds, Siena College supports the creation of a multi-cultural environment for all of its students. In line with this commitment, racism--whether in word or deed--is unacceptable.

Siena College Mission

Siena College is a learning community advancing the ideals of a liberal arts education, rooted in its identity as a Franciscan and Catholic institution.

As a learning community, Siena is committed to a student-centered education emphasizing dynamic faculty-student interaction. Through a blending of liberal arts and professional education, Siena College provides experiences and courses of study instilling the values and knowledge to lead a compassionate, reflective, and productive life of service and leadership.

As a liberal arts college, Siena fosters the rigorous intellectual development of its students through a healthy exchange of ideas both inside and outside the classroom. It provides opportunities to develop critical and creative thinking; to make reasoned and informed judgments; to appreciate cultural diversity; to deepen aesthetic sensibility and to enhance written and oral communication skills. It develops in each individual an appreciation for the richness of exploring knowledge from a variety of perspectives and disciplines.

As a Franciscan community, Siena strives to embody the vision and values of St. Francis of Assisi: faith in a personal and provident God, reverence for all creation, affirmation of the unique worth of each person, delight in diversity, appreciation for beauty, service with the poor and marginalized, a community where members work together in friendship and respect, and commitment to building a world that is more just, peaceable, and humane.

As a Catholic college, Siena seeks to advance not only the intellectual growth of its students, but their spiritual, religious and ethical formation as well. To this end, Siena is composed of and in dialogue with people from different religious and cultural traditions; fosters a critical appreciation of the Catholic intellectual heritage in conversation with contemporary experience; provides ample opportunities for worship and service; explores the moral dimensions of decision-making in business and the professions; and affirms the dignity of the individual while pursuing the common good.

Founding of the College

Siena is a part of the tradition of higher education founded and nurtured by the Franciscan Order, the followers of St. Francis of Assisi.

At the invitation of Bishop Gibbons of Albany, the Franciscan Friars opened Siena in 1937 and placed it under the patronage of St. Bernardine of Siena, the illustrious 15th century Franciscan preacher. St. Bernardine is a fitting patron for a college as he embodies the rich and deep educational tradition that the followers of St. Francis bring to higher education. He stands also as a challenging example for the young, as a man who made the lessons of the classroom take on new life and as a lifelong student who carried his knowledge and wisdom into the busy marketplace and stately halls of government.

St. Bernardine serves then, not only as a patron, but as a model of the Arts and Sciences: above all, of the greatest art, which is the art of right-living, and the greatest science, which is the science of bringing to society the blessings of a truly liberal education.

Siena received its provisional charter from the Board of Regents of the University of the State of New York in 1938. Within four years, when the student population increased to almost 1,000, a permanent charter was granted.

The Franciscan Liberal Arts Tradition

Siena College is a Catholic College with a strong liberal arts tradition, founded by followers of Francis and Clare of Assisi. The Franciscan tradition of the pursuit of knowledge is likened to a dance: between the desire of the mind for understanding and intelligibility, and the longing of the heart for love and salvation. This tradition developed nearly 800 years ago, when four professors at the University of Paris were received into the Franciscan Order. In the early years, scholarship was made a vibrant part of Franciscan life by St. Bonaventure of Bagnoreggio and Blessed John Duns Scotus in the arts, Roger Bacon in the sciences, and Luca Pacioli in business. Contemporary scholars such as Zachary Hayes, Ilia Delio, and many more have kept the dance alive. In light of this Franciscan tradition, which emphasizes intellectual, social and religious dimensions, Siena College seeks to foster scholarship, service and community.

Siena is committed to intellectual development through critical thinking skills, leading to deeper awareness of questions that challenge human beings. To this end, the College encourages students to gain proficiency in scholarly inquiry, to develop their ability to analyze, synthesize and evaluate evidence in pursuit of truth, to make sound judgments, and to refine their skills in spoken and written communication.

The Franciscan tradition endeavors to make people more sensitive to important social, political and ethical issues of today, and more aware of their responsibilities to others. This encourages them to be witnesses to a positive relation between reason and faith, and to the fact that faith must always be engaged in a critical conversation with culture.

Siena College prepares its students for demanding lives and careers in the 21st century. In a world where many perceive education solely as a means for economic advancement, Siena offers a broader and more profound vision of life, with a unique perspective. This perspective is based on the life of Jesus Christ and given unique expression by Francis of Assisi.

Therefore, Siena's students, faculty, administrators and staff will learn that the greatest power is found in humble service, particularly with the poor and marginalized. The Siena College graduate brings this experience into the world.

The Franciscan intellectual tradition indicates that each person, every creature, and all of nature give reason to praise God. Ultimately, Siena College's unique liberal arts tradition is revealed in a diverse community, where people join in pursuit of higher learning. People of all faiths and philosophies are called to foster the Franciscan tradition at Siena, with an appreciation and understanding of academic excellence and the essential role of religious faith in human life and destiny.

Growth of Campus Facilities

Siena College broke ground on its signature building, Siena Hall, in 1938. The building, completed in two stages, marked the start of a constant campaign to provide students with facilities designed to complement their learning and living experience. Between 1938 and 1950, Gibbons Hall (now known as Foy Hall), St. Bernardine of Siena Friary (now known as Hines Hall), and St. Mary of the Angels Chapel were added to the campus.

In response to an increased interest in on-campus housing, Siena opened Plassmann and Ryan halls, each housing 275 students, as well as Serra Dining Hall in 1959 and 1962 respectively. In 1968 Hennepin Hall, with accommodations for 300 students, was opened. Roger Bacon Hall, Siena's first science center, was opened in 1967. The campus continued to expand in 1974 as the Alumni Recreation Center (ARC) was opened. The ARC houses Siena's indoor athletics program and major social, cultural, and academic programs. In 1992, the ARC expanded to include the Marcelle Athletic Complex (MAC). The addition

doubled the space available for student recreational use. The MAC includes a pool, aerobics/dance studio, weight room, indoor track, squash and racquetball courts, as well as a field house.

In 1981 a new, smaller Friary was constructed for the Franciscan community living at Siena. At the same time, Hines Hall was converted to a residence hall for 200 students, as well as faculty offices and classrooms.

As the college grew in size, so did the demand for on-campus housing. To provide additional living space, the college built a townhouse apartment complex to house 300 students that opened in the fall of 1986. Additional floors were also added to Plassmann and Hennepin halls, increasing their capacities by 200 students each. Additions to Serra Dining Hall were made to accommodate the increased number of residents.

In 1989 Siena's academic facilities were enhanced with the opening of Kiernan Hall. In 1992 Colbeth Hall and the Clare Center opened, housing faculty offices and classrooms, and the St. Francis House, home to the Development and External Affairs Office, was purchased and renovated. Additional townhouses, known as Cushing Village, were also constructed in 1994 and 1995.

More recently, the College opened the J. Spencer and Patricia Standish Library in September of 1999. The 72,000 square foot building, with more than 20 miles of wire built into the walls, provides access to 100 computer stations, 500 Internet connections, a computer laboratory, and a 40-seat screening room.

In April 2001, the Sarazen Student Union was opened. The Union is home to the Pepsi Cafe, Student Communications Center, Student Senate Offices, Student Affairs Offices, and the Siena College Bookstore. Foy Hall, the previous student center, was renovated and now houses the Office of Career and Professional Development and Creative Arts Department.

The Morrell Science Center opened in September 2001. The building is the home of our Biology, Biochemistry, and Chemistry Departments. The 55,000 square foot science center has 24 research labs, 10 teaching labs, and three support areas on three floors.

In September 2001 Siena College opened Padua Hall. Padua Hall has 96 resident rooms, each equipped with complete bathroom facilities, computer network connections, and air conditioning.

Siena College's signature building, Siena Hall, was the object of an \$8 million phased renovation, which has not only upgraded infrastructure, classrooms, and offices, but also preserved the College's most prominent architectural asset. The completion of this project restores Siena Hall to its role as a major focal point of teaching and learning. A high-tech suite, the Hickey Financial Technology Center, offers the latest financial technology used every day in the world's largest financial trading centers. It includes real-world financial products from Bloomberg, Reuters, Morningstar, Compustat, Thompson One Analytics and FARS.

During the summer of 2006, Siena completed a \$4.5 million renovation project of Serra Hall. Key features include a new entrance plaza, new entrance lobby, new services, tiered dining with privacy booths, an expanded window wall, updated mechanical and electrical systems, enhanced audio and video connected to a new campus networked TV broadcast system, and all new furnishings.

In the summer of 2008, a new synthetic turf field located behind the Marcelle Athletic Complex was constructed. The \$2.9 million multi-use, all-weather field is used as a venue for lacrosse, field hockey and soccer, as well as numerous intramural sports. The complex features bleacher seating for 1,000, as well as a press box, scoreboard, box office and terrace area.

Also during the summer of 2008, an aggressive renovation program of the MacClosky Townhouses was undertaken. These ongoing renovations are replacing all major systems and include a number of architectural enhancements that have been very well received by the students.

During the summer of 2009, the Fr. Ben Kuhn House as well as a portion of the Roger Bacon Science Center were renovated. The Kuhn House is now the home for the College's Communications and Marketing Office.

In addition, a portion of the unfinished basement in the Morrell Science Center was renovated into faculty and staff office space.

In 2007 the College also purchased the New York State Police property located directly across Route 9 from the College. In 2011, the decision was made to renovate the building and utilize this space for administrative functions and the College's ROTC program. Starting in the winter of 2012, the old State Police barracks was completely renovated and thanks to a generous donation, named The Trustco Bank Center. This newly renovated space now houses a high percentage of the Finance and Administration Division staff as well as the ROTC program.

Snyder Hall opened in the fall of 2010, provides living space to upper-class students in double rooms that are complete with bathroom facilities in each room. This project included the construction of a second campus dining facility, a student fitness facility and a number of additional student support spaces, as well as additional conference room spaces.

In the spring of 2012 the College approved the construction of a new academic building to house several departments within the School of Liberal Arts. With the help of a generous donation by Joan and Richard Rosetti, construction of Rosetti Hall was undertaken and completed in the summer of 2013. Rosetti Hall will be our first LEED certified building and is equipped with a number of sustainability features as well as state-of-the-art classrooms.

The Siena College campus continues to be improved and to grow through construction of new buildings and renovations. The enhancements provide Siena students with comfortable and efficient learning spaces that are equipped with the latest technology and create a welcoming learning and living environment.

Siena College is also very mindful of the responsibility associated with maintaining the integrity and serviceability of our older facilities and is committed to investing in facility renewal and upgrades that protect the College's investment in its physical plant. Our goal of continuous improvement in all aspects of facilities management will continue to result in improved facilities for learning, living and working and further enhance Siena College's competitiveness and standing as a premier college campus in our region and among our higher education peers.

Accreditation

Siena is registered by the Board of Regents of the University of the State of New York. All programs are accredited by the Middle States Association of Colleges and Schools. The School of Business is accredited by the Association to Advance Collegiate Schools of Business. In addition, the Chemistry program is certified by the American Chemical Society, the Social Work program is accredited by the Council on Social Work Education, and the Teacher Certification programs are accredited by the Council for the Accreditation of Educator Preparation.

Retention Rates

Full-time freshmen retention for fall to spring for the class entering in 2016 was approximately 95%. For full-time freshmen entering in 2015, over 87% were retained from fall to fall 2014 full-time freshmen, almost 90% were retained fall to fall.

Compliance Statement

Siena College is an equal employment opportunity and affirmative action employer and does not discriminate against job applicants or employees on the basis of race/color, religion, sex, age, national and ethnic origin, disability, marital status, veteran status, sexual orientation, gender identity, predisposing genetic characteristics, domestic violence victim status or any other status or condition protected by applicable Federal or New York State statutes.

Siena College admits students of any race/color, religion, sex, age, national and ethnic origin, disability status, marital status, veteran status, sexual orientation, gender identity, domestic violence victim status or with a predisposing genetic characteristic to all the rights, privileges, programs, and activities generally accorded or made available to students at the college. It does not discriminate on the basis of race/color, religion, sex, age, national and ethnic origin, disability, marital status, veteran status, sexual orientation,

gender identity, predisposing genetic characteristics, domestic violence victim status or any other status or condition protected by applicable Federal or New York State statutes in administration of its educational policies, admissions policies, scholarship and loan programs, and athletic and other school administered programs.

Pursuant to Federal and New York State law, Siena College's Equal Opportunity and Employee Relations Specialist/ ADA/504 Coordinator is the designated agent of the College with primary responsibility for coordinating compliance efforts. This administrator is also the Affirmative Action Officer for the College. In broad terms, the Equal Opportunity and Employee Relations Specialist/ADA/504 Coordinator oversees monitoring of Siena's policy in relation to these laws and other employment law developments; implementation of investigative procedures, including notification, investigation and disposition of complaints; provision of educational materials and training for the campus community; conducting investigations of complaints received pursuant to Federal and New York State laws, ensuring a fair and neutral process for all parties; and monitoring all other aspects of the College's compliance.

Pursuant to Title IX of the 1973 Education Amendment, Siena College has appointed a Title IX Coordinator who has primary responsibility for coordinating compliance efforts with respect to sexual misconduct, including prevention and investigation of complaints.

Campus Crime Statistics

Pursuant to Federal law, Siena College compiles campus crime statistics, which are reported annually to the United States Department of Education. The Office of Public Safety will provide upon request all campus crime statistics as reported to the United States Department of Education. In addition, you may access the [crime statistics here](#). Contact Public Safety at 518-783-2376.

Admission to the College

General Requirements

Every freshman applicant to Siena College should submit a completed application to the Office of Admissions by February 15 of his or her senior year in high school. An official secondary school transcript, including work completed at all secondary schools attended by the applicant and a recommendation from the school counselor or college counselor, must be directed to the Office of Admissions. SAT I, SAT II and ACT are not required at the time of decision, but the Admissions Committee reserves the right to require and recommend them for certain students. Every applicant must assume the responsibility for having the results of all SAT I, SAT II, or ACT examinations sent to the College before matriculating.

Interviews

While individual interviews are not required, it is *strongly recommended* that all candidates for admission to Siena visit the campus, especially if not submitting standardized test scores with their application. Meeting with an Admissions counselor and a current student can be helpful in evaluating the quality of the Siena experience. Visit arrangements can be made online at www.siena.edu/visit or by calling the Office of Admissions at (518) 783-2423.

High School Course Requirements

Siena College recommends that all candidates pursue a strong college preparatory program and that they elect challenging courses in their senior year. All offers of admission are made on the condition that the student earns a high school diploma or the equivalent.

Candidates seeking admission to Siena College should be well versed in mathematics and the natural sciences. For students entering the School of Science, four years of high school mathematics and four years of natural/physical sciences (including Biology, Chemistry and Physics) are necessary. Candidates seeking admission to our School of Liberal Arts or School of Business should have completed at least three years of

college preparatory mathematics, reaching at least Algebra II/Trig. To be competitive for admission, we recommend candidates take a year of mathematics beyond Algebra II/Trig.

A working knowledge of a foreign language is useful for all students planning to enter the College.

When and How to Apply

1. Siena College participates in the Common Application System for selective colleges and universities and also the Fast Forward Application. Candidates may access both applications by visiting www.siena.edu or by writing, calling, or emailing (admissions@siena.edu) the Office of Admissions, 515 Loudon Road, Siena College, Loudonville, New York 12211-1462, (518) 783-2423. The College encourages students to submit their applications during the first half of their senior year. The deadline date is February 15 of the student's senior year. For special programs and transfer deadlines refer to the appropriate catalog section or the admissions page at www.siena.edu.
2. Each completed application should be accompanied by a \$50 application fee and sent to the Office of Admissions. If using the Common Application, candidates must submit, by the appropriate deadline, the supplemental application. The secondary school record, recommendation form and mid-term grade report form should be given to the high school counselor or college advisor to complete the necessary information. It is the student's responsibility to be sure that all credentials necessary are submitted.
3. The candidate may submit the SAT Reasoning Test or ACT by forwarding the results of all tests to the Office of Admissions, Siena College, 515 Loudon Road, Loudonville, New York 12211-1462. A prospective student can arrange to take one of these tests by consulting with his or her high school counselor or college advisor. Siena's CEEB code is 2814 for SAT and 2878 for ACT. Candidates who do not wish to send us standardized test scores, must demonstrate successful completion of 19 academic units during high school. Students selecting a major in the School of Science will be required to demonstrate four years of mathematics, including pre-calculus and four years of lab science, including biology, chemistry and physics. Students selecting a major in the School of Business must demonstrate 4 years of mathematics.

Students applying to the following programs will be required to submit standardized test scores, as a result of Siena agreements with outside programs:

Siena College/Albany Medical College Applicants
Author O. Eve Higher Education Opportunity Program Applicants
Student Athletes, as prescribed by NCAA initial eligibility guidelines
Siena/Albany Law 4 + 3 Program
Siena/Pace Law 4 + 3 Program
Siena/Western New England 4+3 Program

4. Applicants whose native language is not English are expected to submit an English Proficiency exam score, either the TOEFL or IELTS. The minimum TOEFL score is a 65 and the minimum IELTS score is a 5.5. However, students who receive a score of 79 or higher on the TOEFL or a 6.5 or higher on the IELTS will not be required to take an English language assessment upon arrival to Siena College.
5. Notification of the Admission Committee's decision will be sent to each candidate by March 15. Upon notification of acceptance, a nonrefundable deposit of \$500 will be required to reserve a place in the incoming class by May 1.

Early in the summer, after receipt of the final secondary transcript and certification of graduation, all students may expect to receive information about the reporting date and instructions for the College orientation program.

Early Admission

In general, Siena does not encourage students to enter college at the end of their junior year in high school; however, the College will consider applications from outstanding juniors.

High school seniors interested in taking college-level courses may enroll as non-degree students in courses on a space-available basis provided they possess the necessary academic qualifications. Interested seniors should call the Office of Student Success and Academic Advising at 518-783-2341 to gain more information regarding this option.

Early Decision

Siena College offers applicants who have decided that Siena is their first choice an opportunity to receive an early decision. A candidate seeking this decision must submit an application by December 1, checking the Early Decision line on the application, or, if using the Common Application, on the supplemental form. The candidate will be notified of the Committee's decision by January 1 and must send a non-refundable deposit of \$500 by the date specified in the admission acceptance letter. Upon acceptance, the candidate will be expected to withdraw all other applications.

Early Action

Siena's Early Action program does not restrict students from applying to other colleges. A student interested in Early Action must submit an application prior to December 1, checking the Early Action line on the application or, if using the Common Application, on the supplemental form. Candidates will be notified the first week of January.

Arthur O. Eve Higher Education Opportunity Program (HEOP)

Siena co-sponsors The Arthur O. Eve Higher Education Opportunity Program of New York State. As a member institution, Siena is committed to the education of students who are academically and economically disadvantaged as defined by the guidelines of the State Education Department. Applicants to this program must be New York State residents. Students who qualify for admission into the HEOP Program receive academic counseling and tutoring assistance, as well as financial support for their college expenses. Supportive services include a summer session prior to freshman year and continuous academic advising during the completion of the degree program. Candidates for the HEOP program must complete the Siena College Fast Forward application, or the Common Application and the supplemental form, by February 15. Candidates must also submit an SAT or ACT score, in accordance with the grant submitted to the New York State Education Department.

International Applicants

Siena encourages applications from international students. International students add an important dimension to our community. In addition to the materials required for general admission, international students must also submit the following documents: official translated copies of secondary and college transcripts as well as any exit exam results (i.e. A-levels, CAPE, etc.); and a recommended minimum TOEFL score of 55, or an IELTS score of 5.5. If your school does not have a College or Guidance Office, the secondary school forms and letter may be sent by your Head of School. A Certificate of Financial Responsibility will also be required after submitting a deposit to Siena College.

Transfer Students

Students applying for admission to Siena who matriculated at a two-year or other four-year institutions must submit an application for transfer admission by January 1 for the spring semester, April 1 for the summer semester, or by July 1 for the fall semester. Transfer candidates may use the Siena College application by visiting <http://www.siena.edu/transfer> or they may submit the Transfer Common Application. Applications for transfer admission are reviewed as soon as they are complete. Applications received after June 1 will be reviewed on a space-available basis. In addition to the application form, the following information must be received before an admission decision can be made:

1. An official, final secondary school transcript or an official copy of a G.E.D., if applicant graduated from high school within the last 10 years.
2. Official, final, and complete transcripts from all colleges or universities attended.
3. The Siena College Transfer Recommendation Form or the Common Application College Official's Report to be completed by the appropriate college official from the last institution attended on a full-time basis. This form is only required if a student has been enrolled within the past five years. If the student has not attended college in the last five years, they may have an employer write a letter of recommendation.

Although SAT or ACT examinations are not required for transfers to Siena College, students are encouraged to submit the results of SAT or ACT tests if they are applying to the School of Science. Transfer credit will be given only for those courses in which at least a C grade has been earned and that are similar in content, level, and scope to courses offered at Siena. Siena will accept a total of 75 credits from four-year institutions. A maximum of 66 credits may be transferred from accredited two-year institutions. These credits would include Advanced Placement, College Proficiency Examination, International Baccalaureate Diploma, and Experiential Learning credits. A tentative evaluation of credit can be made by an Admissions staff member during the candidate's interview or upon acceptance. Final approval of transfer credits is made by the Dean of the School the student is entering. Transfer students entering Siena will be contacted by the Assistant Dean of their School for an appointment to meet and schedule courses. The evaluation of transfer credit is based on the student's academic major. Any future change of major will result in a re-evaluation of this transfer credit.

Generally, students transferring to Siena are expected to have a minimum 2.5 cumulative average at the institution where they are currently enrolled. Admissions standards will vary depending upon the space availability in specific programs.

Students who transfer into Siena with 24 or more credits earned while matriculated at another college or university do not take First Year Seminar sequence 100 and 101 but will fulfill this requirement by using any two other core courses (3 credits each from any two core disciplinary areas). Students who transfer in the spring semester with fewer than 24 credits will take First Year Seminar 101 in the Spring semester, but will not take First Year Seminar 100 the following fall. Instead, they will substitute any other core course.

Transfer students must earn a minimum of 45 semester hours and complete at least half of the major field at Siena to earn a degree at Siena.

Students in the School of Business must earn at least half of *all* Business credits counted toward the degree at Siena. The only exception to this rule is for students from schools with which we have a dual degree agreement, e.g. CEFAM.

Credits earned with a grade of C or better from another accredited institution will transfer when the course is similar in content and scope to courses offered at Siena. When a course is accepted in transfer, only the credits transfer; quality points (i.e., grades) do not transfer.

Once students matriculate at Siena, they are permitted to transfer in up to 18 additional credits, to a maximum of 75. Any exceptions must be pre-approved by the School Dean. This limit of transfer credits does not apply to credits earned from Study Abroad programs. The maximum total of transfer credits is 75.

Re-Entry Students

Students who interrupt their studies for financial or personal reasons need only contact their School Office to reactivate their records, register, and be assigned an advisor. Students dismissed for poor scholarship must seek permission from the VPAA to apply for readmission.

Non-matriculated Students

An individual may take a limited number of courses on a credit-no-degree basis as a part-time student. If the student later matriculates the appropriate credit earned will be applied toward graduation requirements.

No more than 15 credits may be taken on the credit-no-degree basis unless approval is secured from the Office of the Vice President for Academic Affairs.

Auditing Students

A student may audit a course with the approval of the academic advisor. The deadline date for declaring audit status is indicated in the Academic Calendar. The auditing fee is the usual tuition for the course

and laboratory charges. A grade of AU is recorded if attendance standards are met. If attendance standards are not met, the grade of W is assigned. No academic credit is granted. An audited course may be taken for academic credit in the future, but all course requirements must be met at that time. An audited course does not count toward the 12 credit hours which must be maintained per semester in order to remain eligible for most forms of financial aid.

Advanced Placement

Students who have successfully passed one or more Advanced Placement Tests administered by the College Entrance Examination Board may request advanced placement and/or credit. Advanced placement means that the student may be scheduled for a course at a more advanced level. Credit means that the student receives credit toward the 120 hours required for graduation. A score of 4 or 5 will usually be accepted for placement or credit. No grades are assigned to the courses for which the student receives advanced placement credit. A student with a distinguished high school record and superior scores on standardized entrance examinations also may be considered for advanced placement without credit.

International Baccalaureate

International Baccalaureate Higher Level examinations will be received for credits for scores of 5 or better. No credit is awarded for Standard Level examinations. Courses are recommended to the appropriate school dean for acceptance as transfer credit, on a course-by-course basis, to a maximum of 30 credits.

Tuition and Fees – 2017-18

Students enrolled for 12 or more hours are considered to be full-time students. College policies and charges for tuition and fees are listed below:

<i>Tuition:</i> Undergraduate Tuition for 12 to 17 credit hours	
(per semester).....	\$17,717.50
Undergraduate Tuition per credit hour for	
1 to 11 credit hour in excess of 17 credit hours.....	\$675.00
Master of Science in Accounting (per credit hour)	\$1,181.00
<i>Residence:</i> Room (per semester)	
Hennepin Hall (per semester)	\$4,290.00
Hines Hall (per semester)	\$4,290.00
Plassmann (per semester).....	\$4,290.00
Ryan (per semester).....	\$4,290.00
Padua (per semester)	\$4,915.00
MacClosky Square (per semester).....	\$5,152.50 – \$5,512.50
Cushing Village (per semester).....	\$5,152.50
Snyder Hall (per semester).....	\$5,465.00 – \$7,882.50
Premium Board (per semester)	\$2,985.00
<i>Tuition Deposit:</i>	
New Students–Full-time	\$500.00
New Students–Part-time	\$50.00
Graduate Students.....	\$350.00
<i>Course and Laboratory Fees:</i>	
Biology, Chemistry, Computer Science, Environmental Science, Mathematics, and	
Physics Labs (per lab hour).....	\$100.00
(ENVA—100).....	\$100.00
(ENVA—430).....	\$150.00
(SCDV—010).....	\$150.00
(SCDV—210, 211,230).....	\$100.00
Calculus (MATH—110, 120)	\$125.00

Calculus (MATH—210).....	\$150.00
Computer Use Fee (determined by course)	\$125.00
Creative Arts (CREA—111, 112, 200, 204, 221, 280, 312, 313, 314,325, 360, 420,430, 435,460)	\$100.00
Creative Arts (CREA—104, 135, 219, 251, 252, 258, 330, 349, 450, 451, 452, 453, 454).....	\$125.00
Creative Arts (CREA—145, 345, 347, 348).....	\$150.00
Education (EDUC—495, 496).....	\$100.00
First Year Seminar (per semester).....	\$100.00
Nursing (NURS—310).....	\$200.00
Political Research course.....	\$100.00
Psychology (PSYC—300, 400).....	\$125.00
School of Business Technology (All Sch. of Bus. Majors) (per semester).....	\$100.00
Sociology (SOC—202).....	\$100.00

Miscellaneous Fees:

Application Fee.....	\$50.00
College Registration Fee (Part-Time Students, per sem.).....	\$80.00
Graduation and Diploma Fee.....	\$145.00
Late Payment Penalty (per semester).....	\$125.00
Late Fee (per semester).....	\$200.00
Orientation Fee, Full-time Freshman.....	\$240.00
Academic Support Service Fee, Full-time Freshman.....	\$125.00
Parking Permit (per year) Plus Tax.....	\$85.00
Resident Student Laundry Fee (per semester).....	\$50.00
Returned Check Fee.....	\$70.00
Student Activity Fee (Full-time students, per semester).....	\$150.00
Student Health Insurance (per semester).....	TBD
Transcript Fee (one-time).....	\$35.00

Procedure for Payment

Payment is due in full by August 23, 2017, for the Fall 2017 semester and January 9, 2018, for the Spring 2018 semester. The College does not mail paper bills and you will be responsible to view and print your bill for payment. Bills are available online through our Student Account Center (SAC) at www.siena.afford.com. Any balance that is not covered by financial aid or loans must be paid by the semester's due date to avoid late fees. If you are receiving payment from an outside source, you must notify the Office of Business Services, by the semester's due date, in order to avoid late fees.

Checks and cash are accepted for payment. The College does not accept credit cards as a form of payment. Payment can be sent to Siena College, Office of Business Services, 515 Loudon Road, Loudonville, NY 12211. Please include the student's name or student ID number with payment.

Through the Student Account Center (SAC) at www.siena.afford.com you can pay by an automatic withdrawal from your checking or savings account. Click on "View Available Payment Options".

Siena College also offers monthly payment plans through Tuition Management Services (TMS), without interest, at a nominal enrollment fee. You may contract with TMS to pay the balance due to the College. The amount of your contract must cover all charges not covered by financial aid and loans in order to avoid late fees. A monthly payment plan can be set up by contacting Tuition Management Services at 800-279-1918 or enrolling through the SAC at www.siena.afford.com. No monthly payment plans are offered directly with the College.

A student may not receive a diploma or transcript until all accounts have been paid in full.

Payment by Check

Any checks payable to the college returned due to “insufficient funds” will be assessed a fee. In addition to this fee, the college may require that all future payments be made by certified funds.

Deposits

A TUITION DEPOSIT of \$500 is required of all new full-time students and \$50 of all new part-time students upon acceptance. This deposit must be made to effect completion of acceptance at the College and is non-refundable.

Rooms and Meals

Students living on campus are required to subscribe to a Siena meal plan. The cost for room and full meal plan is \$14,550 - \$21,855 for the 2017-2018 academic year. There is a variety of meal plans available. Changes to a meal plan may be made only within the first two weeks of each semester and may be made online on Web for Students under “Community Living”.

Books and Supplies

All required books, supplies, and many other items commonly used by students are available at the Campus Bookstore located in the Sarazen Student Union. It is estimated that books and supplies will cost approximately \$1,292 per year.

General Estimate of Cost

The cost for a commuting student can be estimated at \$42,093 - \$43,233 for 2017-2018. Resident student costs can be estimated at \$54,625 - \$55,765. Actual costs may vary, depending upon academic program and choice of residence. The above figures do include non-billed costs that the student may incur: Books, supplies, personal and transportation expenses.

Withdrawals and Refunds

A student who finds it necessary to withdraw from any courses before the conclusion of the fall, Spring semester, or summer sessions must first obtain a withdrawal form available in the Office of the Registrar. A resident student must also advise the Office of Community Living (Sarazen Student Union, room 318). The date of withdrawal will be the later of the student’s documented last date of attendance at an academically-related activity or the date indicated by the student as his/her intended withdrawal date when the student submits a written statement of withdrawal. If a student leaves the College at any time during the semester without following this procedure, he/she will be marked as having failed in all courses for the semester. No refund will be given after the fifth week of the semester for fall and spring. No refund will be given for Summer Sessions after the fourth class has met. Any credit balances will be refunded by the method paid. A request for refund must be made in writing to Student Accounts in order for a refund to be issued.

Tuition: Tuition will be refunded on a proportionate basis according to the following schedule:

Fall and Spring Semesters

Two weeks or less	80%	Five weeks	20%
Three weeks	60%	Over five weeks	No refund
Four weeks	40%		

Students who receive financial aid and terminate their studies before the end of a semester may be required to refund a portion of their financial aid. The formula to be used is described in the Financial Aid section of this catalog. This refund policy is not applicable to students dismissed from the College and/or College housing for disciplinary reasons. If the College must return federal aid to the government on behalf of a student dismissed or denied access to housing and food services within the first four weeks of a semester because of disciplinary sanctions, the College will charge the student the amount the College was required to refund the government on his/her behalf. This refund policy does not apply to emergency closings; see Academic Information and Regulations.

Room and Board Fees:

All full time students, with the exception of commuters and transfer students, are required to live in college residence facilities to the extent space is available and to purchase a board plan.

If you wish to appeal the residency requirement at any time, you must:

1. Contact the Office of Community Living to request a petition to be released from the residency requirement. The form is to be completed and returned to the Office to Community Living, Sarazen Student Union, room 318. The appeal should be a request to be contractually released from the Housing/Food Service requirement for the subsequent semester or academic year. Examples may include but are not limited to: particular medical health needs, changes in your personal or financial circumstances or to review a first year freshman's request to change to commuter status as defined by the student handbook, *Siena Life*.
2. You and your family are strongly encouraged to include written documentation in support of the reason(s) (e.g. medical information, financial information, etc.) with your request for appeal.
3. In the event that you are granted a release from the residency requirement or contract, you are no longer subject to the residency requirement as determined by the Appeals Board.
4. The decision of the Office of Community Living is final.
5. Students who withdraw from the College will receive a pro-rated refund dependent upon the ability to fill all beds.
6. Students with billable damage (room/suite/townhouse and common area damage or vandalism) in excess of \$100.00 may have this Housing/Food Service Contract immediately cancelled.
7. Students dismissed from housing for disciplinary reasons are not eligible for any refund of housing fees (room and board, if applicable).

Other fees: Other fees will not be refunded in whole or in part.

Academic Information and Regulations

Siena College is approved by the New York State Education Department to offer the Master of Science in Accounting, the Bachelor of Arts, the Bachelor of Science, the Bachelor of Business Administration, and programs leading to professional licensure, certification, teacher certification (grades 7-12) and 5, 6 extension and business and marketing education (all grades). Enrollment in other than registered or otherwise approved programs may jeopardize a student's eligibility for certain student aid awards (NYSESED Commissioner's Regulations (53.3(d)(1)).

<u>CIP</u> <u>CODE</u>	<u>PROGRAM</u>	<u>HEGIS</u> <u>CODE</u>	
52.0301	Accounting	0502	Bachelor of Business Administration
		0502	Bachelor of Science
		0502	Master of Science
		Prov	Initial Teacher Certification
		5002	Certificate
27.9999	Actuarial Science	1799	Bachelor of Science
05.0102	American Studies	0313	Bachelor of Arts
	Social Studies	Prov	Initial Teacher Certification (grades 7-12) and 5, 6 Extension
26.0202	Biochemistry	0414	Bachelor of Science
26.0101	Biology	0401	Bachelor of Science
		Prov	Initial Teacher Certification (grades 7-12) and 5, 6 Extension
26.9999	Biology/Medical Albany Medical Joint Program	0499	Bachelor of Arts
52.0101	Business	0501	Bachelor of Science
40.0501	Chemistry	1905	Bachelor of Science (Also certified by American Chemical Society)

		Prov	Initial Teacher Certification (grades 7-12) and 5, 6 Extension
16.1200	Classics	1504	Bachelor of Arts
44.0201	Community Consulting	2101	Certificate
	Community Development	5506	Certificate
27.9999	Computational Science	1799	Bachelor of Science
11.0101	Computer Science	0701	Bachelor of Science
		5101	Certificate
50.0101	Creative Arts	1001	Bachelor of Arts
45.0601	Economics	2204	Bachelor of Science
		2204	Bachelor of Arts
23.0101	English	1501	Bachelor of Arts
		Prov	Initial Teacher Certification (grades 7-12) and 5, 6 Extension
26.1301	Environmental Studies	0420	Bachelor of Arts
	Environmental Sciences	0420	Bachelor of Science
52.0801	Finance	0504	Bachelor of Science
		Prov	Initial Teacher Certification
16.0901	French	1102	Bachelor of Arts
		Prov	Initial Teacher Certification (grades 7-12) and 5, 6 Extension
54.0101	History	2205	Bachelor of Arts
	Social Studies	Prov	Initial Teacher Certification (grades 7-12) and 5, 6 Extension
11.0101	Information Systems	5101	Certificate
30.9999	International Studies, Foreign Language, Business	5699	Certificate
52.1401	Marketing	0509	Bachelor of Science
		Prov	Initial Teacher Certification
52.0201	Management	0506	Bachelor of Science
		Prov	Initial Teacher Certification
27.0101	Mathematics	1701	Bachelor of Arts
		1701	Bachelor of Science
		Prov	Initial Teacher Certification (grades 7-12) and 5, 6 Extension
51.3801	Nursing	1203.10	Bachelor of Science
30.0501	Peace Studies	5622	Certificate
38.0101	Philosophy	1509	Bachelor of Arts
40.0801	Physics	1902	Bachelor of Science
		Prov	Initial Teacher Certification (grades 7-12) and 5, 6 Extension
45.1001	Political Science	2207	Bachelor of Arts
22.0000	Pre-Law Studies		Certificate
42.0101	Psychology	2001	Bachelor of Arts
38.0201	Religious Studies	1510	Bachelor of Arts
05.9999	Revolutionary Era Studies	5603	Certificate
27.9999	Risk Management	0504	Certificate
13.1205	Secondary Education Biology, Chemistry, Physics, French, Spanish, English, Mathematics, Social Studies (American Studies, History)		For those receiving Certificate only; participants of Bachelor degree programs should refer to the appropriate Major.
		Prov	Initial Teacher Certification (grades 7-12) and 5, 6 Extension
	Business and Marketing	Prov	Initial Teacher Certification (all grades)
44.0701	Social Work	2104	Bachelor of Arts
45.1101	Sociology	2208	Bachelor of Arts
16.0905	Spanish	1105	Bachelor of Arts

		Prov	Initial Teacher Certification (grades 7-12) and 5, 6 Extension
30.0000	Student Designed Interdisciplinary	4901	Bachelor of Arts
50.0501	Theatre	5610	Certificate

Changes in College Regulations

The Board of Trustees of the College and/or College administration officials reserve the right to advance requirements for admission, to change the courses, the requirements for graduation, degrees, tuition, fees, and regulations affecting the student body. Such regulations will apply to all enrolled and new students, and will be effective on the day promulgated. It is the responsibility of the students to keep themselves informed of the content of all notices concerning such changes. Contact Academic Affairs at 518-783-2307.

Emergency College Closing

In the case of an emergency, such as a pandemic flu outbreak, natural disaster or like circumstance beyond the College's control, where the College is forced to close, the College reserves the right to continue delivery of services through alternative means, including, but not limited to, remote instruction or changes in the weeks of a normal semester, in order to meet academic requirements. The College also reserves the right to invoke a different refund policy that will take into consideration the College's efforts to continue the delivery of academic services.

Undergraduate Degree Requirements

To qualify for the Bachelor's degree, a student must be in good standing, both in conduct and academics; must satisfactorily complete 120 hours of coursework as specified by the department and school, attain a minimum cumulative index of 2.00, and earn at least a C- grade in every major field course used to satisfy the credit hour requirement of the major. At least half of the major field and a minimum of 45 credit hours must be earned at Siena. For majors in the School of Business, at least half of all business credits counted toward degree fulfillment must be taken at Siena.

All students should choose courses so that they fulfill the minimum number of credits in the liberal arts required for their degree: 90 credits of liberal arts and science (courses with the attribute ARTS) for the B.A. degree, and 60 credits for the B.S. degree.

Full-time students are required to spend the senior year as full-time matriculated students. Only in exceptional cases will a waiver of this policy be granted. Application for a waiver should be made in the School Office; final approval must be granted by the Vice President for Academic Affairs.

Students must meet all of the program requirements as listed in the catalog under which they first matriculated or any subsequent catalog of their choice. Matriculated students who remain unregistered for eight or more consecutive semesters must meet all of the program requirements as listed in the catalog in place when they re-enter or any subsequent catalog of their choice.

It is the responsibility of the individual student to fulfill requirements for the degree. Through his or her own initiative, progress towards graduation should be reviewed with the Academic Advisor. The Registrar's Office will determine if all requirements are met for graduation purposes.

Core, Concentration, and Electives

The 120 credits required for graduation are to be earned through core, concentration, and elective groupings. The student must follow the specific requirements of the major field, which are described in this catalog under each department.

Core Curriculum

The College Core comprises 42 credits and 14 courses. It is divided into three areas:

The First-Year Seminar (2 Courses)

Disciplinary Core (8 courses)

Franciscan Concern Core (4 courses)

First-Year Seminar (CFY)

The First Year Seminar is a two-semester sequence taught by the same faculty member to the same small group of students each semester of Freshman Year. There are four themes for the yearlong sequence: Heritage (fall), Natural World (fall), Diversity (spring), and Social Justice (spring).

Within each section offered, there are some common interdisciplinary readings plus an introduction to the stories of St. Francis and St. Clare. The values of Francis and Clare are interwoven throughout the year. Each faculty member teaching the course chooses the remaining readings and brings coherence to the section under a theme and title- for example, Voice, Multiculturalism, Technology, Incarceration, The Millennial Generation, or War.

The sequence prepares Freshmen for the intellectual life of college: how to read critically, how to engage with a text, how to articulate an informed position on big questions, how to write clearly and persuasively, how to voice an opinion in a classroom conversation, how to make connections between and among the readings they are doing, the subjects they are studying, as well as between Siena and the outside world.

The First Year Seminar may not be retaken. Students who fail one or both semesters make up the lost credits with one Core Disciplinary course for each semester failed.

Core: Disciplinary Courses

The disciplinary component of the Core ensures intellectual breadth and exposure to a variety of modes of inquiry that characterize liberal arts education.

English (CDE)

History (CDH)

Philosophy (CDP)

Religious Studies (CDR)

Creative Arts (CDA)

Quantitative Analysis (CDQ) Courses in Computer Science, Math and Quantitative Business Analysis

Natural Science (CDN) Courses in Biology, Chemistry, Environmental Studies, and Physics

Social Science (CDS) Courses in Psychology, Sociology, Social Work, Economics, Political Science and Education

Core: Franciscan Concern

The Franciscan Concern component of the Core ensures thematic exposure to themes of special importance to the Franciscan Tradition that can be explored from multiple perspectives. There are four Franciscan Concern areas:

Heritage: Traditions and Their Texts (CFH)

As a tradition born in the 13th Century, the Franciscan Tradition is embedded within Western heritage, and as a living tradition nearly 800 years old, the Franciscan Tradition is constitutive of subsequent Western heritage. The "Heritage" rubric embraces this broad sense of tradition. Courses are welcome that acquaint students with one or more of the major intellectual, cultural, or religious traditions in this history and the texts, figures, events, or movements associated with them. Courses in this category elucidate how these traditions address fundamental questions of humanistic or religious concern.

Diversity: American & Global Pluralism (CFD)

The Franciscan concern for diversity flows from its affirmation of each individual as worthy of respect and compassion. Individuality implies plurality of perspective, both on the level of differences among persons and on the level of differences among peoples. Appreciating diversity requires that students have the

opportunity to see things from perspectives they do not normally occupy. This includes the examination of diverse intellectual perspectives.

Social Justice: Principles and Practice (CFJ)

The Franciscan Tradition joins with other traditions and movements in placing a premium on social justice. Social justice permeates all levels of human affairs and admits investigation from a variety of perspectives. Broadly speaking, social justice concerns (a) the practical organization of human affairs allowing for maximal human flourishing, (b) the values and principles guiding or that might guide the organization of human affairs, (c) the extent to which such values or principles are practically realized or under-realized. The "Social Justice" theme welcomes courses that study the theory or practice of justice from social, moral, political, religious, economic, environmental, aesthetic, or technological points of view.

Nature: Scientific & Normative Approaches to the Natural World (CFN)

The Franciscan Tradition affirms the goodness of nature. As an intellectual tradition, it supports the scientific investigation of nature, and as a spiritual tradition, it cultivates deepened appreciation for the entirety of the created world and heightened commitment to the effective stewardship of the Earth and all living things. The "Natural World" theme welcomes courses that both investigate the natural world from a scientific perspective and also examine the impact and consequences of human involvement in natural systems.

Core Guidelines

Students may use a maximum of **one** major course to satisfy the Disciplinary Core requirement.

Students may use **one** additional major course to satisfy a Franciscan Concern Core requirement. Students can take additional courses in their major that are designated as "Core" to fulfill their major requirements - these will **not** count as Core.

All departments, **except** Religious Studies and Social Work, allow their majors to count one major course as a Franciscan Concern course.

Franciscan Concern courses must be taken at Siena with the following exceptions:

- 1- Students transferring to Siena may transfer in Franciscan Concern courses.
- 2- Study Abroad students will be allowed to transfer in up to two Franciscan Concern courses from their Study Abroad courses.

No more than one course from a subject (i.e. History, English etc.) can be taken to meet the Franciscan Concern requirements.

Changing Majors and Schools

Depending on the academic interest expressed in their applications, students are admitted to Siena College as members of the School of Liberal Arts, School of Business or School of Science. Students wishing to declare a major, change their major or change their School may request to do so at any time. The change of major request can be found on the [Registrar Webpage](#).

Students with an interest in changing schools will see the assistant dean in their current schools who will forward their academic records to the assistant dean in the other school. The Dean of the new school is responsible for approving the request to change schools.

Major

No later than the end of the sophomore year, each student must select a major field.

The following rules govern major:

1. The student, in consultation with his or her department advisor, selects courses in the major field. Students must complete at least half of the major field at Siena.
2. Auxiliary courses in subjects related to the major may be required.
3. Credits earned under the disciplinary requirement may be used in fulfillment of the requirements in the major field.

4. No more than 48 credit hours in any one subject field may be applied toward the degree requirement of 120 hours.
5. A student must earn a minimum grade of C- in each required course in the major field as well as in all other elective major courses that are used to satisfy the requirement of the major; and must have a minimum average of 2.0 in the major.

Minor

Minors are optional for all students; no student is required to declare a minor. Students who want a minor designated on the transcript must declare the minor before the end of their junior year. It is the responsibility of the student to declare a minor within a timeframe that will allow enough time to complete the minor requirements before the student's graduation. The form used to declare a minor is available on the [Registrar Webpage](#). Students with a declared minor who decide not to complete the minor must notify their School's office to "undeclare" the minor.

The following rules govern minors:

1. At least 18 credits (or 6 courses) are required, as outlined by the departments offering the minor.
2. Students are required to maintain a 2.0 average in the courses counted toward the minor; no grade below a C- will be included.
3. No course in a student's minor may be taken pass/fail.
4. Students may use up to two courses to fulfill both the major and minor requirements simultaneously unless specified in the catalog by the department or program.*
5. One-half of the courses in the minor must be taken at Siena College.
6. Courses taken to satisfy the minor may also be used to fulfill the core.

Requirements for minors are provided in each department's or program's section of the catalog or in the "Multidisciplinary Courses and Minors" section of the catalog.

*Students *must* follow the Fall 2016 or a later catalog year to have this option. Students with an earlier catalog year may change to a later catalog year, but they must follow any new curriculum changes that were set forth for the major/minor/certificate for that catalog year. Students may change their catalog year at www.siena.edu/arc.

Concentration

Concentrations are optional for all students not declaring the Business Major. Students declaring the Business Major must choose two concentrations within the School of Business. It is the responsibility of the student to declare a concentration within a timeframe that will allow enough time to complete the concentration requirements before the student's graduation. Concentrations can be selected through the electronic Academic Record Change form. Students with a declared concentration who decide not to complete the concentration, must "undeclare" the concentration through the Academic Record Change form.

The following rules govern concentrations:

1. At least 15 credits (or 5 courses) are required, as outlined by the departments offering the concentration.
2. Students are required to maintain a 2.0 average in the courses counted toward the concentration; no grade below a C- will be included.
3. No course in a student's concentration may be taken pass/fail.
4. Students may use up to two courses from their major to fulfill both the concentration and/or minor requirements for a concentration and/or minor outside of their major discipline.
5. Students may use up to two courses to fulfill requirements across multiple concentrations.
6. For students with a major in a business discipline, other than the Business Major: Students may use up to five courses to fulfill both the major and concentration requirements for one concentration within their major discipline must meet with the program coordinator.
7. At least nine credits (or 3 courses) in the concentration must be taken at Siena College.

Go to the Business Major section of the catalog for information on the concentrations to be used to meet the Business Major requirements.

Double Majors

A student may graduate with a major in two disciplines upon completion of the requirements for both. This choice helps focus the plan of study but reduces the options for course selection each semester. Students must officially register as a major with the primary department and file a form for recognizing the second major with the Registrar. Double majors must be completed by the time the four year degree requirements have been met. If all requirements for the second major are successfully completed, both majors will be recorded on the student's official transcript upon graduation. The primary major will be recognized as the field of concentration for Commencement purposes.

Occasionally two separate majors may have some overlap of course requirements. A course may be used to satisfy requirements in both majors. A student will not be considered to have completed a second major unless at least 21 credits completed in fulfillment of the second major do not overlap with credits taken to fulfill the primary major. If the primary major requires auxiliary courses (which are required for the major but are not considered part of the major), they may be counted toward the second major. The minimum grade point average required for completion of the primary major also applies to a second major. Any questions regarding a student's eligibility for a second major will be resolved by the School Dean, if both majors are in the same School, or by the Vice President for Academic Affairs - Student, if the majors are in different Schools.

Double Degrees

Simultaneous Awarding of Degrees

A second Bachelor's degree may be earned when a student completes major programs that are in essentially different areas of study in two different degrees, e.g. BA and BS. To be eligible, the student must complete at least thirty (30) additional credit hours and fulfill all the requirements for both major programs, required auxiliary courses in both majors, and College core requirements. Students must submit the "Double Degree Request Form" with signatures of the appropriate deans and the Vice President for Academic Affairs to the Registrar's Office.

Second Degree

An alumnus and/or graduate of another four year college or university may be considered for a second degree from Siena College by meeting the following requirements: 1) completing at least 30 additional credit hours at Siena in matriculation, 2) fulfilling all of the College's core curriculum, and 3) the degrees are in two essentially different areas of study and at least 21 credits must be taken from different major areas. In addition to these three conditions, the non-Siena graduate must meet the admissions requirements stated in this catalog relating to transfer students, i.e., credits earned with a grade of C or better from another accredited institution will transfer when the course is similar in content and scope to courses offered at Siena. When a course is accepted in transfer, only the credits transfer; quality points (i.e., grads) do not transfer. All students wishing to pursue either simultaneous or second degrees must consult with an Associate Vice President for Academic Affairs – Student Academic Success and Engagement.

Transfer Credit for Matriculated Siena Students

A Siena student requesting transfer credits will have courses reviewed by the assistant dean in the school within which the student's major is positioned. All course descriptions are reviewed by the respective assistant dean who may then consult with assistant deans in other schools as necessary. Prior to registering for a course at another institution, students must provide their School Dean with a description of the desired course, and complete a transfer credit permission form. Courses consistent with the mission of the college may be approved through the Office of the School Dean.

Any course that is equivalent to a course at Siena that is "300 or above" must be taken at a four-year institution. Exceptions may be made only for those schools with which Siena has an articulation agreement. See your School office for information regarding specific courses as each School at Siena has its own internal rules governing the transfer of credits.

Transfer credit will be given only for those courses in which at least a C grade has been earned and that are similar in content and scope to courses offered at Siena. When a course is transferred to Siena, the

credits are transferred, but the grades are not. Beginning in Fall 2013, once students matriculate at Siena, they are permitted to transfer in up to 18 additional credits. Any exceptions must be pre-approved by the School Dean. This limit of transfer credits does not apply to credits earned from Study Abroad programs. The maximum total of transfer credits is 75.

Hudson-Mohawk Association - Cross Registration

Full-time matriculated students enjoy the opportunity to enrich their education by cross-registering for courses at the following area institutions: Albany College of Pharmacy, Albany Law School, Albany Medical College, The College of Saint Rose, Empire State College, Hartwick College, Hudson Valley Community College, Junior College of Albany, Maria College, Massachusetts College of Liberal Arts, Regents College, Rensselaer Polytechnic Institute, Russell Sage College, Schenectady County Community College, Siena College, Skidmore College, State University of New York at Albany, and Union College. Qualified Siena students are eligible to register for courses offered at these other institutions, provided they have the approval of their faculty advisor and Dean. Students taking advantage of the cross-registration privileges are subject to the regulations and policies of the host institution. Grades and credits earned at the other institution will become part of the student's permanent record at Siena College and are included in the calculation of the term and cumulative indices. Summer Sessions are excluded from the cross-registration agreement. Contact the Registrar for further information.

Academic Advising

Every student at Siena is assigned a Faculty Advisor. The advisor teaches in the School (in the case of students who have not declared majors) or in the discipline in which the student is majoring. The purpose of academic advising is to empower students to choose a direction for their course of studies, help them make intelligent choices for courses within the confines of degree requirements, guide students through the course registration process, and to help students when they are having academic problems. While students are ultimately responsible for confirming that they meet all graduation requirements, they are encouraged to keep in regular contact with their academic advisors, and are required to consult with them before registration.

In addition to meeting with an individual faculty advisor, students may also contact the Student Success and Academic Advising Office with advising concerns or questions about college policy and procedures. The Office can assist with drop-in questions or when faculty advisors are unavailable. Professional staff in the office serve as resources for both faculty and students. Additional information about advising is available on the College's web site (<http://www.siena.edu/advising>).

Registration

All students are expected to register during the registration period. The details and dates of the registration procedures may be found in the schedule of classes published before each semester by the Office of the Registrar. Information is also listed on the Registrar's web page. Each student's registration is not complete until the student has satisfied all financial obligations with Student Accounts and has met all Health Service requirements. Students need permission from their School Dean and the Office of the Vice President for Academic Affairs to take more than 19 credits in a given semester. This applies to courses taken at Siena and those taken concurrently at other colleges. Only in exceptional cases will permission be granted.

Regular and Summer Sessions

The Fall Semester begins in September and ends in December, and the Spring Semester begins in January and ends in May. Multiple summer terms are available beginning in May and ending in July. Course offerings are published and are available on the college website before each academic session. In any of these sessions, a course for which there is an insufficient enrollment may be cancelled.

Unit of Instruction

A credit represents 55 minutes of lecture or a minimum of two hours of laboratory work (120 minutes) per week for one semester, or the equivalent, unless otherwise noted. Laboratory work, where required, is considered an essential part of the course and must be pursued in conjunction with the lectures to obtain credit.

Siena College follows the U.S. Department of Education definition of a credit hour. Specifically, the College defines a credit hour as:

“An amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than:

- 1) One hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work for approximately fifteen weeks for one semester credit or
- 2) At least an equivalent amount of work as required in (1) of this definition for other academic activities as established by the institution, including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.”

Independent Study

Independent Study courses allow students to work on topics of their choosing under the supervision of a faculty member. The courses are listed under each department and require a proposal approved by the faculty member, the Department Chair, and the Dean.

Tutorials

Tutorials may be given only in courses listed in the catalog other than Independent Study. Tutorials are to be requested only in rare instances; e.g., if a course is required, but will not be offered before graduation. Therefore, tutorials are aimed at seniors seeking to complete requirements for a major, minor or certificate. Tutorials require the same number of contact hours as regular courses, and the permission of the faculty member, the Chair, the Dean, and the Vice President for Academic Affairs.

Absences from Class

A student is expected to attend every class and laboratory for which he or she has registered. Each instructor will make known to the student his or her policy with respect to absences in the course. It is the student's responsibility to be aware of this policy. A student may present to the instructor a written statement from an authorized school official if an excused absence is requested for a college-related activity, e.g., an athletic meet, class trip, etc. The instructor makes the final decision to excuse or not to excuse an absence. An instructor is entitled to give a failing grade (U) for excessive absences.

If there has been an extraordinary reason for excessive absences, such as prolonged illness, a student may petition the Vice President for Academic Affairs in writing to consider reinstatement in the class or permission to withdraw with the grade W.

It is the personal responsibility of the student to make up all work assigned during an absence from any class or laboratory.

Pass/Fail Option

The pass/fail option is designed to encourage students to take courses outside of their major fields without affecting the grade point average.

Any full-time matriculated student may elect to take one pass/fail course each semester (excluding Summer Session) to a maximum of eight courses towards graduation. Unless students have already satisfied with a graded course(s) all the requirements - as listed in the degree audit area of their CAPP report - they may not take any of the following courses pass/fail: courses in their major, minor, concentration or auxiliary courses for the major; courses in the college core or the common business requirements or the business core. Certain Certificate Programs do not allow students to take required courses under this option. Students should check with the Director of the Certificate Program.

Courses offered only on a pass/fail basis do not count as part of the eight course pass/fail limit. See School offices for lists of courses mandated as pass/fail.

Matriculated part-time students also may take advantage of this option. The student must be registered for at least six credits in the semester in which the Pass/Fail Option is chosen (excluding Summer Session) and may not use the option in two consecutive semesters.

In order to receive a passing grade P, the student must earn at least a D- grade in the course. Otherwise, the failing grade Z will be assigned, and no credit will be received. A Pass/Fail grade does not affect a student's quality point index. The original letter grade will not be revealed to the student, listed on a transcript, or transmitted to another college.

The student must complete the appropriate form in the Office of the Registrar by the published deadline and may not make a change after the deadline.

Adding a Course

Students may add courses until the deadline published in the Academic Calendar.

Dropping a Course

If a student drops a course during the first week of classes, the course will not be reflected on the transcript. Students who drop a course after the first week of classes, and until the date set in the Academic Calendar for dropping with a "W", will receive a grade of "W" on the transcript. After this date, up until the date set in the Academic Calendar (approximately two weeks before the last day of classes), student may drop a course with either the grade WP (withdrawn passing) or WF (withdrawn failing, not computed in the GPA) based upon the student's academic status in the course at the time it is dropped. Dropping a course is not allowed after the last date for WP/WF specified in the Academic Calendar.

The student is responsible for understanding the implications that may occur from dropping one or more courses (examples: financial aid, housing, health and/or auto insurance eligibility, NCAA regulations, and others).

Examinations

Final written examinations may be administered at the discretion of the instructor. Every instructor schedules other tests and examinations that, in his or her judgment, are required either by the objectives of the course or by the specific needs of the students. Credit will not be granted in any course until all assignments and examinations in that course have been completed. Instructors will hold final examinations on file for a period of one year.

When a student has missed a final examination for some valid reason, a make-up examination may be taken. The make-up examination must be taken within one month from the closing of the term at the convenience of the instructor. Once taken, no final examination will be re-administered.

College Proficiency Examinations, Noncollegiate Sponsored Instruction, and Experiential Learning

Siena participates in the College-Level Examination Program (CLEP), Excelsior College Examination Program, the American College Testing Proficiency Examination Program (ACT/PEP), the National Program on Noncollegiate Sponsored Instruction (NPONSI), and the American Council on Education (ACE). Siena also offers the opportunity to earn credit through portfolio assessment of experiential learning. Students who have attained satisfactory levels of competency in college subjects outside of the traditional classroom may earn college credit through these means, but only in subject areas offered at the College. All credit earned in this manner must be approved by the student's School Dean. The total number of credits that any one student may earn by proficiency examination, noncollegiate sponsored instruction and portfolio assessment of experiential learning is thirty-six (36) credits; a grade equivalent to Siena's C- must be attained.

Academic Integrity

Contact Information: Faculty may address all concerns regarding academic integrity to the Associate Vice President for Academic Affairs, Dr. Tamara Durant, in Siena Hall 215, ext. 2341, or tdurant@siena.edu.

The concept of academic integrity lies at the very heart of any college. This is particularly true of Siena with its strong Franciscan tradition and its dedication to fostering sound moral growth. In such

an environment, academic dishonesty cannot be tolerated. Students found responsible for such violations subject themselves to sanctions as severe as dismissal from the College.

Academic dishonesty can take different forms, including, but not limited to: cheating [dishonesty in a test situation], plagiarism [dishonesty in the presentation of materials in a paper or report], and failure to report known instances of academic dishonesty. If a student is unsure of what constitutes academic dishonesty, it is the student's responsibility to ask his or her instructor for clarification. It is also the student's responsibility to be familiar with the Academic Integrity Policy and related information: "[Academic Integrity Forms and Policy](#)" and "[Academic Integrity Violations](#)."

The Siena Academic Integrity Committee hears cases of alleged academic dishonesty, reviewing all evidence regarding the alleged violation. If the student is found responsible, the committee will determine the appropriate sanction(s), which may include failure of the course, suspension from the College, or permanent dismissal. A statement of the reasons for such sanctions will be placed in the student's permanent academic record.

Alleging ignorance of what constitutes academic dishonesty or of the College's policy on the subject will not be considered a valid explanation or excuse.

Definition of Student

Siena College students must not only comply with all degree requirements to obtain a Siena College degree, but also must follow all College rules and policies affecting their student status, including, but not limited to, those set forth in this Catalog, as well as those enumerated in *Siena Life*, the student handbook. For this reason, it is important to understand who is considered a "student."

The term "student" includes all persons:

1. taking courses at Siena College, full-time or part-time, either on a matriculated or non-matriculated basis, pursuing undergraduate, graduate, certificate or professional studies;
2. who have been notified of their acceptance for admission;
3. who are living in Siena College residence halls, although not enrolled in this institution;
4. who withdraw or stop attending after engaging in behavior that is subject to disciplinary sanctions under College policies;
5. who are not officially enrolled for a particular term but who have a continuing relationship with the College and engage in behavior that is subject to disciplinary sanctions under College policies (including but not limited to those students on voluntary or mandated medical leave, study abroad, leaves of absence from Siena College even if taking classes at another institution; or
6. who have completed all degree requirements until commencement exercises are complete and they have vacated the campus.

Academic Classification

Matriculated students are classified according to the number of credits they have completed toward their degrees, as follows:

Freshman	0 - 23 credits
Sophomore	24 - 53 credits
Junior	54 - 83 credits
Senior	84 or more credits.

Unfinished coursework from prior semesters, (I grades), and coursework in which a student is currently enrolled do not count in the calculation of academic classification.

Students not enrolled in a degree or certificate program are classified as "Non-matriculated" or "Auditor."

Students enrolled in the Accounting; Computer Science; Education; Information Systems; International Studies, Foreign Languages and Business; Pre-Law Studies; Revolutionary Era Studies; Risk Management; and Theatre Certificate Programs are classified as matriculated in their program.

System of Grading

Credit hours are earned for any grade of D- and higher. Quality point values are assigned for each credit hour awarded as follows:

A=4.0 quality points per credit hour; A-=3.7; B+=3.3; B=3.0; B-=2.7; C+=2.3; C=2.0; C-=1.7; D+=1.3; D=1.0; D-=0.7; F=0.0; U=0.0 (Failure due to excessive absence); I=0.0 (Incomplete).

No other grades carry quality point values. Other grades are:

Au	Auditing
W	Withdrawal from the course prior to the published deadline.
WP	Withdrawal from the course after the published deadline while passing.
WF	Withdrawal from the course after the published deadline while failing.

And, for courses on the Pass/Fail Option:

P	Pass	(Letter grades A through D-)
Z	Failure	(Letter F and U)

The Incomplete grade I is assigned to students who have missed a final examination because of illness or some other serious reason. The students must make up the examination within one month after the close of the term at the convenience of the instructor; otherwise the I grade is converted to an F. For GPA purposes, I grades are calculated the same as F grades. All I grades must be reconciled prior to receipt of a degree. Grades appearing on a student's academic record at the time of graduation will not be changed to any other grade subsequent to the graduation date.

Grade Reports

Mid-semester grades are requested from faculty for all students. If these grades indicate that the student's progress is generally unsatisfactory, the student is informed directly by letter. Mid-semester grades are for internal purposes only and are not included on a student's official transcript.

A final grade report is made available to every student shortly after the close of each semester. In the event that the office of academic affairs determines that there has been a violation of Siena's academic integrity policy, Siena reserves the right to adjust any grade in line with the findings of the Academic Integrity committee.

Appeal of Assigned Grades

A student who believes that an error has been made in assigning a grade should discuss the basis upon which the grade was determined with the instructor within 60 days of receipt of the grade report. If after this review the student is not satisfied with the assigned grade, an appeal may be made to the Department Chair. Such appeal should be made in writing, stating the basis upon which the grade is questioned and requesting a departmental review. If following the review the student is not satisfied with the departmental decision, appeal may be made to the School Dean. If the situation is not resolved at the school level, a final determination for disposition of the matter will rest with the Vice President for Academic Affairs.

Scholarship Indices (GPA)

The scholarship index for every student is determined at the conclusion of each semester. The index is obtained by dividing the total number of quality points earned by the total number of credits attempted. A cumulative quality point average of 2.0 is required for graduation.

The following example illustrates how the scholarship index is determined for one semester:

<u>Course No.</u>	<u>Course Title</u>	<u>Grade</u>	<u>Credit Hours</u>	<u>Quality</u>
			<u>Attempted</u>	<u>Points</u>
FOUN—100	First Year Seminar I	A	3	12
HIST—101	Shaping of the Contemporary World	A	3	12
PSYC—100	General Psychology	B-	3	8.1
MATH—010	Finite Mathematics	B+	3	9.9
FREN—101	Fundamentals of French I	F	3	0
			15	42
Quality Points Earned			<u>42</u>	= 2.8 Scholarship Index
Credit Hours Attempted			15	

The cumulative quality point index is determined by dividing the total number of quality points earned by the total number of credit hours attempted for all Siena courses in which grades with quality points were possible. Courses taken under the Hudson-Mohawk Association are included in the calculation of the grade point average (GPA).

Repeated Courses

A student may repeat a course in which a C- or less has been awarded. Both grades will appear on the student's transcript, but the lower grade will not count in cumulative totals. Only the higher grade will be used in computing the cumulative grade point average (GPA). Repeated courses may be taken at Siena or at another institution and transferred back to Siena. Credit for the course will be given only once, unless the course is designated in the catalog as "repeatable for credit." If repeating a course is not required in order to make progress towards a graduation requirement, the course does not count towards full-time status. A change to part-time status (less than 12 credit hours per semester) could affect a student's financial aid eligibility and other eligibility. A student with a question about status when repeating a course should discuss this matter with the Registrar or Financial Aid Office.

Honor Lists

To be eligible for semester honor lists, a student must have completed no fewer than 12 credit hours as a full-time matriculated student or no fewer than 8 credit hours as a part-time matriculated student.

Deans' List: Requires a term index of 3.5 to 3.89.

President's List: Requires a term index of 3.9 or above.

Honor Societies

Alpha Kappa Alpha is the Honor Society of Siena College. Membership in this society is the highest award granted to a student at graduation. To be eligible, a student must have completed 54 credit hours at Siena College, have achieved a minimum index of 3.5 for each year (Fall/Spring semester average) in attendance (including study abroad), have completed a degree application for the appropriate term and must show a significant record of involvement in voluntary service activities during the course of his/her Siena studies. Any students transferring a minimum of 9 credits from any school to Siena are required to have met the same academic standards at the other institutions. Students graduating in January or August who meet the guidelines will be invited to apply for the following May's induction.

Alpha Kappa Delta, Alpha Psi chapter, is the International Honor Society in Sociology. Sociology major and minors are nominated for membership by the Sociology Department based on a record of excellence in Sociology coursework and overall scholarship.

Alpha Mu Gamma, Alpha Tau Chapter, the National Foreign Language Honor Society, recognizes achievement in the field of Foreign Languages. To be eligible, students must have completed four courses above the elementary level, have a 3.0 GPA overall and a 3.5 average in language courses.

Beta Alpha Psi (Nu Xi Chapter) is the International Honor Organization for Financial Information Students and Professionals.

Beta Gamma Sigma, membership in Beta Gamma Sigma is the highest recognition a Business student anywhere in the world can receive in an undergraduate or master's program at a school accredited by AACSB International.

Delta Epsilon Sigma, Beta Psi chapter, is a National Scholastic Honor Society for students in Catholic colleges and universities. Eligible student candidates for induction will have completed 84 credits or more by February 1, with a cumulative GPA of 3.8 or higher.

Kappa Delta Pi, Alpha Epsilon Beta chapter, is the International Honor Society in Education. KDP was established to foster excellence in education and promote fellowship among those dedicated to teaching. The mission of Kappa Delta Pi is to sustain an honored community of diverse educators by promoting excellence and advancing scholarship, leadership, and service while helping committed educators be leaders in improving education for global citizenship. To be eligible, students must have completed at least 30 credit hours of collegiate course work; have at least 12 credit hours in education course work in progress, or completed; demonstrate leadership attributes; have a cumulative grade-point average of 3.0 or greater; and receive an invitation to membership from the Alpha Epsilon Beta chapter.

Omicron Delta Epsilon, Beta Mu chapter, is the International Honor Society in Economics. Membership in this society is in recognition of academic excellence in Economics.

Phi Alpha Honor Society, Delta Upsilon chapter, is the National Honor Society for students, faculty, and practitioners promoting humanitarian goals and recognizing the attainment of academic excellence and scholarship related to Social Work. Student candidates must be admitted into the Social Work program, have completed the first semester of their senior year, have completed at least 15 credits in Social Work, and have a minimum GPA of 3.25 in Social Work and 3.0 overall.

Phi Alpha Delta is the Pre-Law Honor Fraternity.

Phi Alpha Theta, Omicron Xi chapter, is the National Honor Society in History. To be eligible, students must complete 12 credit hours of History, obtain a GPA of 3.4 in History and 3.0 overall, and receive overwhelming support of the History Department faculty.

Phi Lambda Upsilon is the National Honor Society in Chemistry.

Phi Sigma Tau, New York Kappa chapter, is the National Honor Society in Philosophy. Students are nominated by the Philosophy Department for membership.

Pi Gamma Mu, Alpha Gamma chapter, is the International Social Science Honor Society. Membership in this society is in recognition of academic excellence in the Social Sciences.

Pi Mu Epsilon, New York Alpha Epsilon Chapter, is the National Mathematics Honorary Society. Membership is based on scholarly achievement.

Pi Sigma Alpha, Alpha Beta Iota chapter, is the National Honor Society in Political Science. The Political Science Department admits students who have demonstrated academic excellence in the study of Political Science.

Pi Sigma Gamma Sigma is the National Honor Society in Biology.

Psi Chi, the International Honor Society in Psychology, admits students who have attained high academic achievement in this field.

Sigma Pi Sigma, the Siena Chapter of the National Physics Honor Society, recognizes students with high scholarship and achievement in Physics.

Sigma Tau Delta, the English Honor Society, is open to students with at least 15 credits in English, a 3.3 minimum GPA overall, and a 3.55 GPA in English. Selection is subject to departmental approval.

21st Century Leaders Society is the honor society for School of Business majors. Members are selected based on a combination of academic achievement and demonstrated outstanding leadership characteristics. The society is endowed through a donation from Vincent Puritano '59.

Upsilon Pi Epsilon is the National Computer Science Honor Society, which recognizes academic excellence at both the undergraduate and graduate levels in the computing and information disciplines.

Graduation Honors

Three distinctions are awarded to undergraduates, based on their attainments in scholarship:

1. *Summa Cum Laude*, or the highest honors, to those having a scholarship index of 3.90 or higher.
2. *Magna Cum Laude*, or high honors, to those having a scholarship index between 3.70 and 3.89.
3. *Cum Laude*, or honors, scholarship index between 3.50 and 3.69.

In order for a student to qualify for graduation honors the person must have completed 54 credit hours at Siena College. Students pursuing second degrees must have all Siena credits included in the computation and are subject to the 54 credit minimum.

Good Conduct Standing

A student is in good conduct standing if s/he has no outstanding disciplinary charges against her/him. Disciplinary action can be taken against a student after all academic degree requirements have been met but before a student has participated in Commencement exercises and vacated the campus. Moreover, the College reserves the right to withhold a degree or revoke a degree as set forth below.

Good Academic Standing

A student is in good academic standing if he or she is matriculated at Siena College and is considered to be making satisfactory progress toward a degree.

For enrollment verification purposes a student registered for a minimum of 12 credits at the close of the last day to add a semester course as defined by the academic calendar is classified as a full-time student for the duration of that semester. Students registered for fewer than 12 credits are classified as part-time students.

Academic Probation and Academic Dismissal

To obtain a degree, a student must have at least a "C" average (2.00 cumulative grade point average) for all Siena coursework. If a student's cumulative GPA falls below a 2.00, the student will be subject to Academic Probation or Academic Dismissal based on the following chart after the fall and spring semesters.

Category	0-22 credits*	23-37 credits*	38-52 credits*	53-67 credits*	68-82 credits*	83 or more
Academic Dismissal**	Below 1.00	Below 1.50	Below 1.60	Below 1.70	Below 1.80	Below 1.90
Academic Probation***	From 1.00 to below 2.00	From 1.50 to below 2.00	From 1.60 to below 2.00	From 1.70 to below 2.00	From 1.80 to below 2.00	From 1.90 to below 2.00

* Includes transfer credits and earned credits

** Any student dismissed from the College for poor scholarship may not apply for readmission unless he or she has attended a recognized college for one year and has attained a record of satisfactory scholarship. Documented continuous full-time employment or service in the military will be considered as possible

substitutes for academic accomplishments. However, in all cases the final decision for readmission shall be at the discretion of the Vice President for Academic Affairs.

*** Any student who is currently on Academic Probation must participate in academic support programming. Failure to comply may result in a “Hold” being placed on the student’s account, or the cancellation of the student’s current or next semester registration. The cancellation of a student’s current registration will result in the immediate withdrawal or dismissal of the student from the College. Any student who earns a 1.0 or less in any given semester, regardless of their cumulative GPA, will be scheduled by the Academic Advising Support Office for academic support programming (LEAP) in the following semester.

Graduation

Prospective graduates must file a degree candidate application with the Registrar according to the dates for filing as published by the registrar’s office in order to be considered for graduation.

Any student who potentially meets all graduation requirements in his/her last semester as of the day after the last day to withdraw from a course with a “WP/WF” will be allowed to participate in commencement activities. A Senior who will *not* complete all degree requirements prior to the ceremony, but who wishes to participate in the ceremony with their class, may choose to do so by completing a Degree Application by the stated deadline and indicating their desire to “participate” as a non-graduate. All candidates who have completed degree requirements at the end of the spring semester should be present at Commencement. Others who may have completed degree requirements in the previous fall or summer semester are invited to participate. The Registrar makes the final decision regarding participation in Commencement activities. Participants in Commencement exercises wear cap and gown. Diplomas will be mailed to graduates upon the completion of all degree requirements.

For seniors who expect to graduate in May, official transcripts recording transfer credits earned at any other college must be received by the Registrar no later than March 1 of their senior year. Students are responsible for having transcripts from other colleges sent to Siena and should check with the Office of the Registrar before March 1 to be sure that the transcript has been received.

Each degree candidate must settle all accounts with Student Accounts before a diploma is granted.

Withdrawing from the College

Please see the “Withdrawals and Refunds” section located under “Undergraduate Tuition and Fees”.

Separation from the College

Since a student’s continued presence as a recognized member of the Siena community is subject to the authority of the College, the College reserves the right, at the discretion of the administration, to enforce all regulations concerning a student’s academic performance and, if necessary, to cancel registration, refuse academic credit or deny the Bachelor’s degree. The conditions that may warrant dismissal for academic deficiencies are explained above.

Withholding Degree

Siena College reserves the right to withhold awarding a degree pending the completion of the process set forth in the Student Code of Conduct, including the completion of all sanctions imposed, if any.

Revocation of Admission and/or Degree

Admission to or a degree awarded from Siena College may be revoked for fraud, misrepresentation, and/or criminal behavior which may place the College community at risk, or other violations of the Siena Code of Conduct, or for other serious violations committed by a student.

Faculty Attendance Policies

1. Faculty members establish their own class attendance policies and must provide these policies to students at the beginning of the semester (in writing and/or posted on a public website). This policy should also be verbally communicated during the first class (and laboratory) session of the semester (within the drop/add period).

For all courses that have any required activities scheduled outside of class time, faculty must include the required activities with their attendance policy. In addition, students must be given sufficient advance notice, at least 4 weeks in advance of the date and time of these activities.

For all courses that will conduct exams outside of class time, faculty must include with their attendance policy the time and the day (e.g., Wednesdays 6-8 p.m.) at which the exams will be administered.

Faculty members must provide the attendance policy for each of their next semester's classes (and labs) to their department heads within 48 hours of the final submission of the next semester's schedule. The academic deans must post these attendance policies no later than the date that the schedule for the next semester is made available on-line to students.

2. It is left to each faculty member's discretion as to whether missing class for any purpose (bereavement, health/medical, personal business, varsity intercollegiate athletic contest, or any other activity) is an excusable absence. Faculty should establish attendance policies that treat all students equally. If a faculty member excuses a student for participation in any other college-sponsored activity, the faculty member must also excuse a student for participation in a college-sponsored varsity athletic contest.

3. At the beginning of the semester, faculty must review the scheduled college-sponsored activities for each student in her/his class (who brings these activities to the faculty member's attention) and must determine how the absences will be handled. If the absences will affect a student's grade and/or the student's ability to successfully complete the course requirements, the student must be informed immediately (as early as is possible within the drop/add period).

4. Class attendance policies are not in effect during a vacation period (vacations as listed in the Academic Calendar) and between terms when classes are not in session, unless attendance at a class-related-activity is specified by the faculty member in the course syllabus at the beginning of the semester.

5. In conformance with College policy, when course exams are held outside of class time, if a student is absent due to a conflict with a scheduled contest, the student is "excused" and subject to the faculty member's policy regarding excused absence from an examination period.

6. It is often necessary to reschedule athletic contests after the semester has commenced (often due to weather-related cancellations). The Athletic Department and student-athletes should inform faculty of these changes in schedule as soon as is possible. Faculty should be flexible and reasonable in handling these changes. For these cases, the stated attendance policy is in effect and the faculty member should as soon as is possible inform a student if the changes in schedule will affect the student's grade and/or the student's ability to successfully complete the course requirements.

7. If a post-season athletic contest, scheduled by the MAAC or the NCAA, conflicts with a course examination, an affected student is excused from the examination and the faculty member will provide a make-up exam (or other appropriate accommodation) at another time within the examination period or no later than 24 hours after the last day of the examination period.

8. The VPAA, Deans, and Registrar should attempt to make up the final examination schedule as early as possible. The earliest date would most likely be at the end of the last "add" date. Also, this would most likely involve changes in many practices, including the deadline for faculty requests for "examination exceptions/special-scheduling.

Student Records

Transcript of Record

All requests for transcripts must be made in person or in writing. New or first-time registered students will be charged a one-time transcript fee of \$35.00 that covers up to 20 transcripts. An official transcript, bearing the seal and an authorized signature of Siena, will be issued upon the request of the student. A transcript or any information concerning a student may not be released if there is an outstanding indebtedness to the College. Transcripts are prepared in the order in which they are received, so it is

recommended that all requests be made well in advance of the date the transcript is needed. After 20 transcripts, a student may be charged \$5.00 per additional transcript. Fees are no longer assessed to graduates and former students for transcript requests.

Change of Address

Students should report at once to the Office of the Registrar all changes of campus or home residence address.

Student Records (FERPA) Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act of 1974 ("FERPA"), 20 U.S.C. § 1232g and 34 CFR Part 99, governs students' access to and confidentiality of their education records maintained by Siena College. The College notifies students annually of their rights under FERPA. Students have the right to file a written complaint with the Office of Family Compliance at the U.S. Department of Education if they believe the College failed to comply with FERPA.

Education Records Defined

Education records are any records (in handwriting, print, tapes, film, computer or other medium) that are directly related to a student and maintained by the College or by a party acting for the College. They are not: 1) records that are kept in the sole possession of the maker, such as a faculty member, who makes the record for a personal memory aid and does not share the record with anyone other than a temporary substitute for him or her; 2) records created and maintained by the College's Office of Public Safety for law enforcement purposes; 3) employment records; 4) records made or maintained by medical professionals if the records are used only for treatment of a student and made available only to those persons for providing the treatment; or 5) alumni records which contain information about a student after s/he is no longer in attendance at the College.

Student Access to Records

Records available for student inspection are those that fall under the definition of education records and generally include academic records, financial aid records and disciplinary records. References, ratings and/or observations completed before 1-1-75 are not available to students. Students do not have the right to inspect any financial data and income tax forms submitted in confidence by their parents in connection with an application for, or receipt of, financial aid. Concerning a record that contains information relating to more than one student, student access is limited to the portion of the record that pertains only to him or her.

Requests to inspect education records should be made in writing to the specific College office maintaining it. The records, files and/or data will be made available no later than 45 days from the time the written request is received.

Materials will be reproduced at the cost of \$.50 per page for records and \$5.00 for a transcript.

Amendment of Education Records

A student may request in writing an amendment to his or her education record that s/he believes to be inaccurate, misleading, or otherwise in violation of his or her privacy rights. If upon review of the student's request and record, the College determines that the amendment is not warranted, the student will be advised accordingly and given the right to a hearing conducted by an administrative officer of the College who does not have a direct interest in the outcome. At the conclusion of the hearing, the College will either amend the record and inform the student in writing of the amendment or decide that the education record as written should stand. If the College determines that the record should not be changed, the student will be given the right to place a statement in the record commenting on the contested information and/or why s/he disagrees with the College's decision.

Disclosure of Education Records

Siena College will disclose information from a student's education records only with the student's prior written consent, except that the College will not obtain the student's consent if the disclosure is:

1. To other “school officials” whom the College has determined to have legitimate educational interests. A school official is a person employed by the College in an administrative, supervisory, academic or research or support staff position, including health or medical staff; a person elected to the Board of Trustees; a person employed by or under contract with the College to perform a special task, such as an attorney, auditor, or outside vendor; a person who is employed by the College’s Office of Public Safety; and a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if s/he is performing a task that is specified in his/her job description or contract agreement; performing a task related to the student’s education; providing a task related to the discipline of a student; providing a service or benefit relating to a student or student’s family, such as health care, counseling, job placement or financial aid; or maintaining the safety and security of the College;
2. To authorized officials, such as officials of other schools in which the student seeks to enroll, certain federal, state and local officials, or specified officials for audit or evaluation purposes;
3. To accrediting organizations or organizations conducting certain studies for or on behalf of the College;
4. In connection with a student’s application for, or receipt of, financial aid;
5. In the case of an emergency if the knowledge of such information is necessary to protect the health and safety of the student or other persons;
6. To comply with a judicial order or lawfully issued subpoena or is related;
7. to legal action involving the College and the student;
8. In connection with certain disciplinary actions;
9. To parents of a dependent student, as defined in section 152 of the Internal Revenue Code of 1986. The College may, but is not required to, disclose information to parents of a dependent student; however, the College will not do so upon evidence that there is a court order, state statute or legally binding document relating to such matters as divorce, separation or custody that specifically revokes their rights as a parent. The College does not have an obligation to disclose any financial information about one parent to another;
10. Information the College has designated to be Directory Information.

Directory Information & Request to Prevent Disclosure: The following is considered Directory Information, **which may be disclosed to third parties without the student’s prior written consent:** the student’s name, address (both local and permanent, to include email address), telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, photographs, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student. Directory Information will not be made available to the party requesting it unless the appropriate administrative officer of the College has considered and approved the request.

Students may choose to suppress the release of the above Directory Information by written request to the Registrar’s Office. Students who do so will have a confidentiality hold on all of their records. If a student has a confidentiality hold on his or her records, not only will his or her information not appear in any College directories, but the College will also be unable to place the student’s name in the commencement program at the time of graduation, or verify the student’s degree, major or enrollment for possible employment, credit card applications, insurance, or mortgage qualifying purposes. A student who has a confidentiality hold on his or her records may rescind a “no release clause” at any time in writing to the Office of the Registrar.

Health Requirements and Records Policy

A. Policy Statement

The Siena College Health Service will comply with, uphold and enforce relevant provisions of the New York State Public Health Law, Article 21, Title VI, and Section 2165 and 2167 as it pertains to this college. Siena College is committed to providing a safe and healthy environment for its students concerning communicable diseases, including Measles, Mumps, Rubella, Tuberculosis, Tetanus, Diphtheria, Pertussis and Meningitis. The College recognizes and accepts its responsibility under applicable state law and

considers recommendations from the America College Health Association and U.S. Centers for Disease Control & Prevention.

B. Health Insurance

All full time students are required to have health insurance. Full time students that do not have health insurance will be billed for and receive insurance through Siena College's student health insurance plan administered by CDPHP. If a student has health insurance coverage, they will be required to complete an online waiver verifying their coverage. It is recommended that before a waiver is processed, students will check with their health insurance provider to determine what limitations there may be for coverage in the Albany area. Many plans do not provide benefits "out of network" and many networks do not extend to the Albany area. If this is the case with your health insurance coverage, it is suggested that you do not waive Siena College's student health insurance plan administered by CDPHP. Part time students may voluntarily enroll in Siena College's student health insurance plan administered by CDPHP.

C. Definition of Student

Part-time student — any person enrolled in a minimum of 6 but fewer than 12 credit hours per semester.

Full-time student — any person enrolled in 12 or more credit hours per semester.

D. Specific Requirements

1. All full-time students are required to submit a completed Siena College Health Record. The physical exam must be performed within 1 year of admission for new students and students that have been readmitted to the college after an absence of two years or more.
2. Full-time and part-time students born after January 1, 1957, are required to provide proof of immunity to Measles, Mumps, Rubella, Meningitis, Tetanus/Diphtheria/Pertussis at the time of registration. Documentation of tuberculosis status is also required, regardless of age.
 - a. **Measles** (rubeola): Proof of immunity shall consist of one of the following:
 - two immunizations given after 1967, at least 30 days apart, on or after the first birthday; evidence of the disease documented by a physician (MD or DO); or documentation of an adequate immune titer.
 - b. **Mumps** (infectious parotitis): Proof of immunity shall consist of one of the following:
 - one immunization given after 1967, on or after the first birthday; evidence of the disease documented by a physician (MD or DO); or documentation of an adequate immune titer.
 - c. **Rubella** (German Measles): Proof of immunity shall consist of one of the following:
 - one immunization given after 1967, on or after the first birthday; evidence of the disease documented by a physician (MD or DO); or documentation of an adequate immune titer.
 - d. **Meningitis**: Evidence of receiving one vaccination at the age of 16 years old or older and within the last 5 years.
 - e. **Tetanus/Diphtheria/Pertussis**: Evidence of receiving a combined tetanus/diphtheria/pertussis toxoid (TDaP) within 10 years.
 - f. **Tuberculosis**: Evidence of a current tuberculosis screening performed within the past six months or a chest x-ray ruling out active tuberculosis. Positive skin tests will require a referral to the Chest Clinic of the local county Public Health Department (see section on enforcement below). Nursing students working in a healthcare facility may provide evidence of a negative TB test within 1 year.
3. It is strongly recommended, but not required, that all students be immunized against Influenza, Hepatitis B and Varicella.
4. Students seeking religious exemption from these requirements must comply with applicable state regulations. Students under 18 years of age must submit a written statement signed by his/her parents or guardian stating that they hold genuine and sincere religious beliefs contrary to the practice of immunization. Students 18 years or older must submit a statement themselves to qualify for religious exemption. This statement must describe the beliefs in sufficient detail to permit the college to determine that the beliefs are religious in nature (not philosophical), and sincerely and genuinely held. Students that qualify for religious exemption will be required to leave the campus in the event of an outbreak of one or more disease(s) and will remain away from campus until 21 days after the outbreak is over.
5. Medical exemptions from this requirement may be granted at the discretion of the Health Service Director for reasons such as pregnancy, history of anaphylaxis, AIDS, and other relevant disease states. Non-immunized students will, at the discretion of the Health Service Director, be required to

leave the college in the event of an outbreak of one or more disease(s) and will remain away until 21 days after the outbreak is over.

6. All students (as defined above) must provide health information on the appropriate form and submit it to the Siena Health Service. The Health Service will maintain the records while the student is in continuous attendance at the College.
7. Any individual enrolled in 5 credit hours per semester or less, or any part-time student at Siena who enrolls full-time in the future must, at that time, submit a completed Siena College Health Record and meet all other requirements of a full-time student as set forth in this policy. Any individual enrolled in 5 credit hours per semester or less at Siena who enrolls part-time in the future must, at that time, meet all the requirements of a part-time student as set forth in this policy.

E. Enforcement of the policy:

1. Students who fail to comply with this policy, including but not limited to any failure to supply complete health and immunization records to the College prior to June 30th for the fall semester and start of classes for spring semester. After 30 days from the start of any semester, the College will disenroll any student who does not have the required immunizations. This means that the student is not allowed to attend any class or to be on College property. In addition, if the student is in residence, they must vacate their residence hall room within 24 hours and are not allowed to be in or around the residence halls or on College property until all immunizations are complete and clearance has been obtained from Health Services. Once a student has provided the necessary documentation from a health care provider that the immunizations are complete or has received clearance from the Health Services they are allowed to resume classes and return living in the residence halls.
2. Students with positive tuberculin tests, including those who have had BCG vaccination, are required to report to the Albany County Health Department Chest Clinic or the Health Department in their county of residence. Failure to comply with health department directives will result in the penalties listed in the preceding paragraph.

F. Reporting

1. Siena College complies with the requirement to submit yearly reports of immunization statistics including reports of diagnosis of communicable disease, as they occur, as required by NYS Department of Health regulations.
2. Student immunization records contain medical information and will be maintained in a confidential manner. Access to these records will be limited to personnel whose job duties require information from these records. No records can be released without the student's written consent or for a student under the age of eighteen, the consent of a parent or guardian. All medical records will be stored for seven years.

College Resources

Library/Audiovisual Resources J. Spencer and Patricia Standish Library 518-782-6717

The J. Spencer and Patricia Standish Library is a teaching library providing educational services, materials, and information to support the learning goals and research needs of the students and faculty. The library has access to over 200,000 eBooks and a collection of over 360,000 volumes consisting of books, journals, microforms, compact discs, videocassettes, and a growing number of electronic information sources. Over 30,000 journals are available through electronic resources or in print. Patrons can access the online catalog, the library's Web site, and many databases through the campus network and the Internet. Professional librarians are on duty every day during the academic terms to assist students and faculty in their course assignments and research. Other services include individual and group instruction in the effective use and evaluation of print and electronic resources, interlibrary loan, course reserves, rush cataloging, and media services. Through local and national resource sharing networks and agreements, Siena students and faculty have access to the holdings of libraries in New York State and throughout the United States.

During the academic year the Library is open Monday – Thursday 7:45am to 1:00am; Friday 7:45am to 6:00pm; Saturday 10:00am to 6:00pm; and Sunday 10:00am to 1:00am. Variations in the scheduling during other periods are posted in the lobby and on the Library's Web site (www.siena.edu/library).

The J. Spencer and Patricia Standish Library offers attractive and inviting spaces for individual study and collaborative learning. Print, audiovisual and electronic resources are located in close proximity. Public workstations give students immediate access to databases and the Internet. Audiovisual Services provides traditional and electronic access to audiovisual resources; digitization services and support for the Digital Scholarship Center, as well as supporting coursework and other educational programs.

Information Technology Services

Information Technology Services provides access to computing services for all members of the Siena College community. The staff and facilities are dedicated to student and faculty needs and are available to support them in their coursework and research. Contact the Helpdesk at (518) 786-5000 for students and 782-6000 for faculty/staff.

Services available to students and faculty include: Helpdesk support, "How To..." documentation, and frequent training seminars. Equipment provided includes desktop and laptops (Windows and Macs) as the primary computer for faculty and staff; desktop computers in labs and study spaces throughout the campus for students, laser printers (B & W as well as color) and scanners. Two computer labs are available 24 hours per day, 7 days a week. The 24-hour lab in the library also houses the Student Help Desk. All students have accounts that provide access to email, the Internet, WiFi, and network file, print and application services.

All academic and residential buildings are interconnected with a high-speed network. Every student residence space includes a connection point for access to the College's network and the Internet, and wireless access is available throughout the college.

All classrooms including seminar spaces have computer and multimedia projection technology. Additionally, there are a number of teaching spaces throughout campus with computers for students, both PCs and Macs, to meet both general and specialized coursework needs.

Faculty and students use the Blackboard Learning Management System with support provided by instructional technology from ITS. The college uses Google Apps for Education as its e-mail and collaboration tool. Students will retain their Siena Google account on becoming alumni. Standard supported software includes the Microsoft Office suite including: Word (word processing), Excel (spreadsheet), Access (database), and PowerPoint (presentations). The Oracle database system is also available. Statistical tools include industry-leading SPSS; Mathematica is used extensively in Mathematics and other courses. Additionally, Java, PHP, Python, Perl, and C++ are used in a variety of courses. Many specialized software packages are also used in the lab and classroom facilities for languages, humanities, social sciences, natural sciences and business.

Computer Ethics

This is a summary of the College's Computing Use Policy. The complete document is published in Siena Life, the student handbook, and is available on the Information Technology Services website (www.siena.edu/its). The computing facilities are a resource of the College with access given for academic and research use. Accounts are to be used solely by the person to whom the account was given.

In order to continue to provide computer services to students and faculty at Siena, it is expected that all persons who are given access to the computing facilities will conduct themselves responsibly and professionally.

Student abuses of the privilege of access to the computing facilities will be adjudicated via the College's judicial system, following stated College policy on dishonesty and theft. Abuses of privilege include (but are not limited to):

- Use of another person's account (with or without the owner's permission).
- Reading, printing, altering, or deleting information from another account without permission of the owner.
- Damaging, modifying, replacing, or copying any licensed software.
- Damaging, modifying, or replacing any computer equipment.

- Use of any hardware or software in the pursuit of personal monetary profit.
- Harassment of any individual via use of any part of the Siena computer network.

The staff of Information Technology Services may access users' private files during the investigation of possible abuses, or by direction of the President or Vice President of the college.

Courses of Instruction

Course descriptions include the course number, course title, and important text. Many courses will also include attribute codes (ATTR:). An attribute is a code used to indicate a special requirement that the course will meet (i.e., requirements for a major, a minor, for core, etc.) and will be important for monitoring a student's progress toward his or her degree. A list of the attribute codes and descriptions follows:

Attributes

<u>CODE</u>	<u>DESCRIPTION</u>	<u>CODE</u>	<u>DESCRIPTION</u>
ACOM	Academic Community Engagement	ELIT	English Literature
AMSA	American Studies Area A	ENB	Environmental Science Elective
AMSB	American Studies Area B	ENE	Environmental Science Earth Systems Elect.
AMSC	American Studies Area C	ENHR	English Honors Program
AMST	American Studies	ENTR	Entrepreneurship Elective
ANAP	Admissions New Alumni Program	ENUL	Upper Level English
ARTS	ARTS	ENV	Environmental Science Elective
ASLT	American Studies American Literature	ESR	Earth Systems Requirement
ASTR	Astronomy	EXPH	Experiential History
ATAT	Accounting Theory Elective	EXCA	Creative Expression
AXSR	Math Auxiliary Sequence	FCSE	Forensic Science
BCEL	Broadcast Electives	FILM	Film Studies
BCST	Broadcast and Society	FLMA	Film Studies Group A
BCUL	Broadcast and Society Upper Level	FLMB	Film Studies Group B
BUS	BUS	FLMC	Film Studies Elective
CAA	Area Req-Aesthetic Dimensions	FNEA	Foundations of Economics Electives A
CAH	Area Req-Human Past	FNEB	Foundations of Economics Electives B
CAIC	Corp Accounting Intern Control Elective	FORM	Biology Requisite Form and Function
CAL	Area Req-Literature	FRLT	French Literature Course
CAN	Area Req-Natural Science	FSCL	French Society and Culture
CAP	Area Req-Philosophical Questions	FSDV INSA	Interdisciplinary Elective
CAQ	Area Req-Quantitative Reasoning	FSEN INSA	ENGL Department Elective
CAR	Area Req-Religious Dimensions	FSES INSA	Envir Stu Dept Elective
CAS	Area Req-Social Science Perspectives	FSPC INSA	Peace Studies Elective
CDA	Disciplinary Req-Creative Arts	FSPH INSA	PHIL Department Elective
CDE	Disciplinary Req-English	FSPS INSA	POSC Department Elective
CDH	Disciplinary Req-History	FSPY INSA	PSYC Department Elective
CDN	Disciplinary Req-Natural Science	FSRS INSA	RELG Department Elective
CDP	Disciplinary Req-Philosophy	FSSW INSA	SWRK Department Elective
CDQ	Disciplinary Req-Quantitative Analysis	FSSY INSA	SOCI Department Elective
CDR	Disciplinary Req-Religion	GLST GS	Minor - Elective
CDS	Disciplinary Req-Social Science	GNPA	Govt. & Non-Profit Acct. Applied Area Elect.
CEMO	Biology Req-Cellular Molecular	GNPI	Govt. & Non-Profit Acct. Internal Contr. Elect.
CFD	Franciscan Concern Req-Diversity	HAM	History-American
CFH	Franciscan Concern Req-Heritage	HAR	History of the Arts
CFJ	Franciscan Concern Req-Social Justice	HEUR	History-European
CFN	Franciscan Concern Req-Natural World	HGC	History/Genre/Criticism
CFS	Foundation Sequence	HLTH	Health Studies
CFY	Core First Year Seminar	HMAM	History Minor American
COGA	Cognitive Science Area A	HMEU	History Minor European
COGB	Cognitive Science Area B	HNRS	College Honors Program
COGC	Cognitive Science Area C	HNW	History-Non-Western
COMC	Community Consulting	HSMR	Health Studies Minor Elective
COMD	Community Development	HYHR	History Honors Program
DRAM	Dramatist or Dramatic Movement	HYUL	History American Upper Level
EAB	Environmental Appl Block	IBME	International Bus Minor Elective

IBMS	International Bus Minr Hum/Soc Stu Elec	ORPO	Biology Req Organismic Population
ILST	International Studies	PCST	Peace Studies
INT	Internship	PHY	History of Philosophy
ISCE	Info Systems Certificate	PHYL	Biology Req Physiology
ISP	International Studies Certificate Program	PHYS	Physics-Advanced Physics
JMN	Criminal Justice Minor	PLG	Philosophy-Logic Courses
KEM	Chemistry-Integrated Science	PNH	Pre-Nineteenth Century History
LACS	Latin Amer and Carib Studies	PONH	History-European not Anicent
LAHP	Latin Amer Historical Process	PXEX	Experimental Psychology Courses
EXPH	Experiential History	REA	Revolutionary Era Studies Area A
LALA	Latin Amer Language Arts	REB	Revolutionary Era Studies Area B
LASC	Latin Amer Soci Cultural	REC	Revolutionary Era Studies Area C
LASS	Latin Amer Socio Cul/Sci	RSET	Religious Studies - Ethics
LSRG	Lower Sociology Range	RSHS	Religious Studies - Historical Studies
LTAM	Upper Level American Literature	RSRT	Religious Studies -Religious Thought
LTBA	British or American Literature	RSSC	Religious Studies - Scriptural Studies
LTIB	Irish or British Literature	RSWR	Religious Studies - World Religions
LTTP	English Major Special Topic	RVEE	Revolutionary Era Studies Certificate
MCCP	Comparative Multicultural Minor	SGLB	Sociology Major Global Req
MCSY	Macro-Sociology Elective	SPLT	Span Literature Course
MGEL	Management Electives	SPUL	Spanish Upper Level Literature
MGMT	Management	STVN	STV Natural
MHUL	Upper Level Mathematics	STVP	STV Philosophy
MINR	Minor Req	STVS	STV Social Science
MORP	Biology Req Morphology	SUB1	Substitution for Registrar Use
MRKT	Marketing	SUBS	Substitution for Registrar Use
MRST	Medieval and Renaissance Studies	SYUR	Upper Range Sociology Elective
MSAE	Master of Accounting Elective	WRIT	Writing
MULT	Multicultural Studies Minor	WSTU	Women's, Gender, and Sexuality Studies
MUMD	Multimedia		Minor Elective
NOEX	No Exam		

Multidisciplinary Majors, Minors, Certificates, and Courses

See *Academic Support Services* section of the catalog for the listings of SSAA and ESOL courses. See the Career Education and Professional Development Office (CEPD) section of the catalog for the listings of SASE courses.

Academic Community Engagement

Dr. Paul Thurston, Director of Academic Integration
Allison J. Schultz, MPP, Director of Programs

The Center for Academic Community Engagement (ACE) includes a variety of undergraduate and post-graduate experiential education programs that are academically grounded, long-term, and developmental. Through ACE Programs, students have professional experiential learning opportunities across the nonprofit sector. These programs include:

- The Bonner Service Leaders Program
- The AmeriCorps VISTA Fellows Program
- The Nonprofit Excellence and Transformation Program (NEXT)
- The Global Service Internship Program (GSI)
- The Summer Service Scholars Program (SSS)
- The Duke Fellows Program
- The Community Engaged Teaching and Learning Program (CETL)
- The Community Policy Institute Program (CPI)
- The Partnering Leaders and Youth Program (PLAY)

The 200+ students in these programs serve over 60 Capital Region community-based nonprofits through direct service volunteers, practicums and internships, consultant projects, project managers, community engaged courses, community-based research projects and other academic linkages.

Certificate in Community Development

The Certificate in Community Development offers any interested Siena student an academic pathway to examine community development approaches, and in particular those involving higher education institutions, for addressing the challenges faced by the communities in which they civically engage. The Certificate is open to any major. Students in the program will critically examine their long-term community engagement and explore questions about social justice, power, and solidarity.

Requirements for the Certificate in Community Development (18.00 Credits)

Social Context:

3 cr.

Entry level courses that introduce students to thinking systemically and institutionally about the causes and consequences of the community needs. PHIL 101 Philosophy and the Human Being **OR**

PHIL 103	Reason and Argument	OR
POSC 130	Political Theory	OR
SOCI 101	The Sociological Perspective	OR
SOCI 120	Global Social Problems	OR
SOCI 160/ ENVA 140	Environment & Society	OR

Diversity and Community Engagement Skills:

3 cr.

Classes designed to create deep introspection, explore personal privilege and biases and engage in dialogue.

COMD 200	Higher Ed Partnerships for Community Development	OR
WRIT 390	Rhetoric and Appalachian Identity	OR
ILST 100	Introduction to International Studies	OR
MGMT 211	Management (with ACOM attribute)	ORg
MGMT 220	Management Consulting (with ACOM attribute)	OR
MULT 300	Topics in Multicultural Studies	

Data Collection and Analysis Method:

3 cr.

Classes that engage students in a variety of research methods to help prepare for community engaged research and projects with the community partners.

COMD 210	Community Research and Consulting	OR
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Students may also meet this requirement by taking their major's research methods course. Please note that only students in each major can use that major's course to meet this requirement. These courses are:

BIOL 190	Writing and Research Skills for Biologists	OR
COGS 200	Introduction to Cognitive Science	OR
CSIS 410	Software Engineering I	OR
ECON 430	Econometrics	OR
EDUC 400	Proseminar	OR
ENVA 210	Environmental Research Methods	OR
MGMT 336	Management Research Methods	OR
MRKT 336	Marketing Research Methods	OR
NURS 305	Research to Promote Evidence Based Nursing Practice	OR
POSC 178	Political Research I	OR
POSC 182	Political Research II	OR
POSC 325	Public Opinion	OR
PSYC 300	Research Methods in Psych I	OR
SOCI 304	Research Methods I	OR
SOCI 306	Research Methods II	OR
SWRK 430	Social Work Research	OR
WGG 400	Women's, Gender, and Sexuality Studies Seminar	

Community Development Experience:

9 cr.

Classes that give students opportunities to engage and lead in the community for project and research purposes.

Students must complete at least 9 credits from the options listed below, 3 of which must be at the 400-level.

POSC 265	Public Policy (with ACOM attribute)
COMC 300	NEXT Practicum in Consulting I
COMC 400	NEXT Practicum in Consulting II
COMD 280	Urban Community Development Internship
COMD 285	International Community Development Internship
COMD 300	Community Development Practicum
COMD 400	Community Development Capstone I
COMD 410	Community Development Capstone II

Description of Courses

COMC—300. NEXT Practicum in Community Consulting I 1 to 3 credits

A long-term, intensive service project with a Siena nonprofit partner in the Capital Region as part of the NEXT program. This course can be repeated for credit. (ATTR: ACOM, MGEL)

COMC—400. NEXT Practicum in Community Consulting II 3 credits

A continuation of the NEXT Practicum I with significantly more leadership and consulting project responsibilities. This course can be repeated for credit. Prerequisite: COMC-300. (ATTR: ACOM)

COMD—120. Facilitating Community Change 1 credit

The purpose of this course is to teach students to run small-group facilitation sessions. The major emphasis of this course is on designing and running facilitation sessions and creating action plans in collaboration with participants. This course is required for anyone who wants to facilitate for ACE partners and for ACE programs such as the Community Forum. Students may repeat this course up to three times for credit. (ATTR: ARTS, COMD)

COMD—200 Higher Ed Partnerships for Community Development 3 credits

This class critically examines community organizing and development and the role of institutions of higher education in this process. It examines responses to following three questions: What are the elements of effective community organizing? What is the role of the university in creating/supporting community change? and finally, how does one go about creating and maintaining effective university-community partnerships? Students will leave this class ready to engage in a disciplinary-based community change project with a Siena faculty member and a Siena College community partner. (ATTR: ARTS, CFJ, REC)

COMD —210 Community Research and Consulting 3 credits

This course investigates the concepts of community, social justice, change and development. Students in this class will study those ideas and implement them with a community partner. Employing *Community Based Research (CBR)*, students will conduct research and develop a collaborative and progressive social research project. (ATTR: ARTS, CFN, COMD, INRM, REC)

COMD— 280. Urban Community Development Internship 0 – 6 Credits

A long-term, intensive service project with a DEEP Siena partner in the Capital Region. Prerequisites: Permission of an ACE Director. (ATTR: ARTS)

COMD— 285. International Community Development Internship 0 – 6 credits

An internship in which students spend a minimum of 5 consecutive weeks working with a community-based organization outside the U.S. Prerequisites: Permission of an ACE Director. (ATTR: ARTS)

COMD— 290. Topics in Community Development 3 credits

This course is designed to introduce students to topics in community development that are not currently offered as part of the Certificate in Community Development. May be taken more than once with different content. Consult Fall and Spring Schedules for specific topics. (ATTR: ARTS, COMD)

COMD— 300 Community Development Practicum 1 – 3 credits

This course awards academic credit to eligible students for the community engaged work with a faculty member at Siena. The number of credits awarded will be determined in advance by the Office of Academic Community Engagement on the basis of workload and the degree of difficulty of the assignment. A satisfactory written report, practicum journal, and participation in regular ASL Fellow TA seminar meetings will determine the final grade. Prerequisites: PCST 250, COMD 200 or COMD 210. (ATTR: ARTS, COMD)

COMD— 400. Community Development Capstone I 1 – 3 credits

Study or research of an advanced topic of the student's choice in an area related to community engaged scholarship. Supervised by a faculty member with the student's thesis committee (which will contain one member from the Academic Community Engagement Office). Where applicable, other Capstone/Theses such as HNRS400 projects may be substituted. Prerequisites: PCST 250, COMD 200 or COMD 210 or Permission of ACE Director. (ATTR: ARTS, ACOM)

COMD— 410. Community Development Capstone II 1 - 3 credits
A continuation of Community Development Capstone I. Prerequisite: COMD 400. (ATTR: ARTS, ACOM)

Actuarial Science Major

John C. O'Neill, Ph.D., Director

Actuarial Science is an interdisciplinary course of study combining theory and application from both the natural and social sciences. This course of study integrates the theoretical quantitative skills learned primarily in mathematics and applied mathematics with the traditional business disciplines of economics and finance. It is designed for industrious students who have a real interest in learning rigorous mathematics and wish to apply mathematical concepts to help make practical business decisions.

A student who chooses to major in actuarial science will develop (1) a strong mathematical background stemmed in current treatment of classical mathematics, (2) a firm understanding of applied mathematics via statistical analysis, (3) a practical sense of how these mathematics are used in business to solve problems, (4) a fundamental knowledge of economic theory and (5) an understanding of finance theory and the role of finance within the firm.

A major in Actuarial Science will prepare a student for a career in areas such as pension plan design, health benefit systems analysis and asset management as well as the more traditional roles associated with the insurance industry. Moreover, completion of the Actuarial Science degree at Siena College will satisfy the Validation for Educational Experience outlined by the Society of Actuaries and Casualty Actuary Society. The course of study should also prepare students with the scholarly background necessary to pass Exam 1/P offered by the aforementioned societies. All students pursuing the degree should work closely with the Actuarial Science Director to choose curricula appropriate to their post-graduate plans.

Requirements for the Major, B.S. in Actuarial Science (35.000 credits):

CSIS 110	Introduction to Computer Science	3 cr.
ECON 430	Econometrics	3 cr.
FINC 301	Managerial Finance I	3 cr.
FINC 315	Advanced Investments: Theory and Practice	3 cr.
FINC 421	Business Financial Forecasting	3 cr.
MATH 120	Calculus II	4 cr.
MATH 210	Calculus III	4 cr.
MATH 371	Probability for Statistics	3 cr.
MATH 470	Mathematical Statistics	3 cr.

Students must also complete one of the following pairs of courses:

ACCT 200	Financial Accounting	3 cr.
ACCT 205	Managerial Accounting	3 cr.

OR

MATH 230	Linear Algebra	3 cr.
MATH 320	Mathematical Analysis	3 cr.

Auxiliary (10.000 credits)

ECON 101	Principles of Economics, Micro	3 cr.
ECON 102	Principles of Economics, Macro	3 cr.
MATH 110	Calculus I	4 cr.

A minimum grade of B- is required in all courses in order to count towards the Actuarial Science major.

Cognitive Science Minor

Dr. Joshua Alexander, Director

Cognitive science explores the nature of cognitive processes, drawing on research methods from philosophy, psychology, and computer science. The goal of cognitive science is to understand how the mind works, including the representational structures and cognitive processes that underwrite our cognitive capacities, the acquisition and development of these capacities, and the implementation of cognitive structures and processes in both biological and artificial hardware. Working to understand the nature of cognition is one of the most ambitious and exciting projects of our time, and the Cognitive Science Minor positions students to work at the forefront of this movement, preparing them for a variety of graduate programs (e.g., programs in cognitive science, computer science, neuroscience, philosophy, and psychology) and a wide range of industry research positions (e.g., software and hardware design, trial consultation, and education, as well as advertising and marketing). The Cognitive Science Minor allows students to develop a program of study that can focus on a wide range of issues (e.g., the limits of artificial intelligence, the philosophy of mind, the nature of visual perception, the role of emotion in moral decision-making, the "hard problem" of consciousness, etc.) using a wide range of methods (e.g., empirical studies of the ontogenetic and phylogenetic development of cognitive abilities, experimental work on the cognitive processes of adults, neuroscientific studies of the neural bases of cognition, computational and robotic research on simulated cognition, and philosophical work on the nature of the mind).

Requirements for the Minor in Cognitive Science (18.00 credits):

COGS 200	Introduction to Cognitive Science	3 cr.
COGS 400	Cognitive Science Capstone Seminar	3 cr.

Students who are majoring in Philosophy, Psychology or Computer Science are required to complete an additional 12 credits consisting of four approved courses from at least two of the following groups outside of their academic major:

Students who are majoring in other areas must take at least one course from each of the following groups plus an additional course for a total of 18 credits.

Group A) Philosophy:

PHIL 155	Logic
PHIL 300	Philosophy and Knowledge
PHIL 333	Special Topics – when appropriate
PHIL 400	Philosophy of Language and Mind
PHIL 450	Great Figures in Philosophy– when appropriate
PHIL 490	Seminar – when appropriate
PHIL 491	Symposium on Living Philosophers– when appropriate

Group B) Psychology:

PSYC 240	Learning
PSYC 245	Human Motivation
PSYC 340	Human Cognition
PSYC 350	Physiological Psychology
PSYC 355	Sensation and Perception
PSYC 285	Topics in Psychology – when appropriate
PSYC 490	Seminar – when appropriate

Group C) Computer Science:

CSIS 110	Introduction to Computer Science	
CSIS 120	Software Development	
CSIS 210	Data Structures	
CSIS 220	Assembly Language and Computer Architecture	
CSIS 251	Discrete Structures	
CSIS 351	Theory of Computation	
CSIS 375	Introduction to Artificial Intelligence	
CSIS 200	Topics in Computer Science – when appropriate	
CSIS 201	Topics in Computer Science with Laboratory – when appropriate	
CSIS 400	Advanced Topics in Computer Science – when appropriate	
CSIS 401	Advanced Topics in Computer Science with Laboratory– when appropriate	12 cr.

The director of the Cognitive Science Program must approve the particular selection of courses in order to assure overall coherence and breadth.

Description of Courses

COGS — 200. Introduction to Cognitive Science 3 credits

This course will introduce students to the basic concepts and methods associated with the interdisciplinary study of cognition, focusing on research from philosophy, psychology, and computer science. We will focus on representation and computation, learning and problem solving, and the nature of mind, perception, intention, emotion, and consciousness, as well as attempts to model human cognition. Students should come away from the course with a better understanding of the nature of the mind, human cognition, and artificial intelligence. Prerequisites: PHIL 101 or PHIL 103 or PSYC 100 or CSIS 110. (ATTR: COGS, ARTS, CFN)

COGS — 400. Cognitive Science Capstone Seminar 3 credits

This course is intended for students who have completed or nearly completed their cognitive science coursework. Students will apply previously acquired analytic, computational, mathematical, and experimental skills to independent research projects. Class time will be devoted to descriptions of innovative and useful research methods, discussions of recent developments in cognitive science, and student presentations of their research projects. Topics may include representation and computation, learning and problem solving, and the nature of mind, perception, intention, emotion, and consciousness, as well as attempts to model human cognition. The principle obligations of the seminar participants are to lead two class discussions, to actively participate in all classes, and to conduct a full-scale research project and to present the results from this research project near the end of the semester. Prerequisites : COGS 200 (ATTR: COGS, ARTS)

Computational Science Major and Minor

Dr. Graziano Vernizzi, Director

“Computational Science” is a relatively new interdisciplinary field that has emerged as a new and distinct discipline. It is a highly functional mixture of applied mathematics, computer science, and the sciences. The goal of such a program is to teach a student to perform science computationally. A scientist trained in computational science will bring computing skills to the solution of scientific problems—an approach traditional majors do not offer. Graduates of the program will be prepared for employment in research laboratories, business, and academia, and for further study in computational science and related disciplines.

Computational Science is the study of scientific problem solving using computers. It covers the formulation and analysis of problems, the use of software packages and programs to solve these problems computationally, simulations and modeling, mathematical and numerical analysis, visualization, and programming. A student emerging from such a program will have strong problem-solving skills with a multidisciplinary approach. Such skills make the computational scientist highly sought after.

Students may elect to major or minor in Computational Science. Courses for the Computational Science program at Siena are distributed among three departments: computer science, mathematics, and physics. For the major, seven courses are required in each of the three participating departments, plus a capstone course that may be elected in any one of the three departments. For the minor, three courses are required in each department.

A student planning to major in Computational Science should consult each semester with the Computational Science program director. Not every course is offered every year, so care must be taken in scheduling to assure completion of the major.

Requirements for the Major, B.S. in Computational Science (73.000 credits):

CSIS 110	Intro to Computer Science	3 cr.
CSIS 120	Software Development	4 cr.
CSIS 210	Data Structures	3 cr.
CSIS 310	Numerical Methods	3 cr.
CSIS 385	Design and Analysis of Algorithms	3 cr.
MATH 110	Calculus I	4 cr.
MATH 120	Calculus II	4 cr.
MATH 210	Calculus III	4 cr.
MATH 230	Linear Algebra	3 cr.
MATH 240	Intro to Computer Algebra	3 cr.
MATH 250	Discrete Structures	3 cr.
MATH 260	Differential Equations	3 cr.
PHYS 130	General Physics I	4 cr.
PHYS 140	General Physics II	4 cr.
PHYS 222	Modern Physics	3 cr.
PHYS 250	Computational Physics	3 cr.
PHYS 310	Mechanics I	4 cr.
PHYS 350	Simulation and Modeling	3 cr.

PSYC 345 Drugs and Human Behavior
 SWRK 452 Social Work Prac: Drugs and Alcohol

*POSC 374 is offered every other Fall
 *POSC 376 is offered every other Spring

Entrepreneurship Minor

The minor in Entrepreneurship introduces students to the knowledge and skills that are necessary to create, identify, and effectively implement innovative ideas in the marketplace. Consistent with the mission, students will think creatively and critically as they identify opportunities and develop strategies to pursue them.

Requirements for the Minor in Entrepreneurship (18.000 credits):

Introductory Level Course 3 cr.

Non-business Majors: ENTR 210 Introduction to Business and Entrepreneurship

Business Majors: MRKT 212 Marketing*

(*Marketing Majors may substitute ACCT 200 or ACCT 205)

Upper Level Required Courses – All Majors

ENTR 332 New Product Development 3cr.

ENTR 310 Entrepreneurship and New Venture Creation 3 cr.

ENTR 410 Entrepreneurship and Small Business Development 3 cr.

Elective Credit – (Two options available) 6 cr.

Elective Credit Option #1: A total of 6 credits from the following list:

- SCDV 001 Topics in Science
- SCDV 010 Discovery Science
- SCDV 100 In the Realm of the Physical Sciences
- BIOL 025 Human Biology
- BIOL 110 General Biology I
- BIOL 120 General Biology II
- CHEM 010 Topics in Chemistry: Chemistry in the News
- CHEM 025 Concepts of Environmental Chemistry
- CHEM 050 Chemistry in the Kitchen
- CHEM 110 General Chemistry I
- CHEM 120 General Chemistry II
- CSIS 110 Introduction to Computer Science
- CSIS 115 Database Design and Applications for Business
- CSIS 120 Software Development
- CSIS 180 Web Design
- CSIS 200 Topics in Computer Science
- CSIS 350 Database Management Systems
- CSIS 390 Web Application Development
- CSIS 400 Advanced topics in Computer Science
- CSIS 401 Advanced Topics in Computer Science with Laboratory
- ENVA 010 Environmental Issues
- ENVA 100 Environmental Science
- ENVA 140 Environment and Society
- ENVA 210 Environmental Research Methods
- ENVA 240 Sustainable Tourism
- ENVA 290 Environmental Chemistry
- ENVA 300 Environmental Economics
- PHYS 010 Topics in the Physical Sciences:
 - Introduction to Nanoscience
 - Structures
 - Introduction to Engineering
- PHYS 055 Energy and Environment
- PHYS 130 General Physics I

PHYS 140	General Physics II	
CREA 112	Basic Design	
CREA 204	Digital Photography	
CREA 325	Graphic Design	
COGS 200	Introduction to Cognitive Science	
ENTR 430	Entrepreneurial Finance	
ENTR 499	Independent Study in Entrepreneurship	OR

Elective Credit Option #2:

Students select a combination of elective courses reflecting their particular area of interest. Students will propose the completion of two courses, outside the student's major area of study, that are substantially related to the intended area of entrepreneurship. As examples, a computer science major intending to work in the health and human services area may choose courses in public administration and medical sociology. A marketing major intending to work for a historical museum may opt to take courses in revolutionary studies and visual arts.

The Director of the Center for Innovation and Entrepreneurship must approve the particular selection of courses, prior to enrollment, to assure overall coherence and breadth.

Description of Courses

ENTR—210. Introduction to Business and Entrepreneurship 3 credits

This is an introductory course to the elements of business. It is offered for non-business majors. Students will be introduced to foundational business concepts, including marketing, management, accounting and finance. Additionally, students will begin to explore traditional paths to entrepreneurship. Some emphasis will be placed on understanding the design and development of business and marketing plans. (ATTR: BUS, ENTR)

ENTR—310. Entrepreneurship and New Venture Creation 3 credits

An introductory course concentrating on how new venture opportunities are identified and assessed. Special attention is given to exploring the unique role of entrepreneurship and innovation in society. Course content focuses both on understanding the historical, social, and ethical context of entrepreneurship and in seeking, assessing and developing new venture opportunities. Students will learn alternative approaches to finding new venture opportunities and assessing the viability of those opportunities. Prerequisites: ACCT—205 and MGMT—211 and MRKT—212. Non-business majors may be allowed to substitute ENTR-210 with permission of the program director. (ATTR: BUS, ENTR)

ENTR—332. New Product Development 3 credits

This course focuses on marketing entrepreneurship and innovation of new product development and brand management throughout the product life cycle. The first part of the course studies the new product/service development and testing to market introduction for new or established organizations. Attention is devoted to creating an environment conducive to innovation, reorganizing business opportunities, and assessing the market, customer, and competitive situations throughout the product life cycle. The second aspect of the course relates to branding and brand management, including the tasks of positioning, brand personality and equity, and alternate branding strategies. The course facilitates the development of the conceptual knowledge and applied skills students will need in order to meet the needs of a diverse global market across all socio-economic groups. Prerequisites: MRKT—212 or ENTR—210. Same as MRKT—332. (ATTR: BUS, CFD)

ENTR—410. Entrepreneurship and Small Business Development 3 credits

An advanced course in entrepreneurship focusing on developing, planning, financing and launching new business ventures. The course will require students to integrate the functional areas of business in developing, writing and presenting a real business plan for an entrepreneurial start-up or an existing small business. Prerequisite: ENTR—310. (ATTR: BUS, ENTR)

ENTR—430. Entrepreneurial Finance 3 credits

This course will provide the student with a comprehensive understanding of the entrepreneurial investment process from both the Entrepreneur's and Investor's perspective. We will focus on essential methods of financing to advance "ideas" toward "commercial success", as well as the investment evaluation method, and expectations for the wide variety of investment vehicles. These are vital skills that students, particularly entrepreneurs, will find beneficial in the development, analysis, and launching of their products. This course supplements the concepts taught in other Entrepreneurship classes and will lead to greater entrepreneurial success for students. Prerequisite: ENTR—210 or MRKT—212. (ATTR: BUS, ENTR)

ENTR—490. Seminar in Entrepreneurship 3 credits

This course is intended to provide opportunities for concentrated study at an advanced level in areas beyond the scope of regular course offerings. Consult Fall and Spring schedules for specific topics. May be taken more than once with different contents. Prerequisite: ENTR—310. (ATTR: BUS)

ENTR—499. Independent Study in Entrepreneurship 1-3 credits

A student, with the consent of the Executive Director of CIE, the Dean of the School of Business, and a participating faculty member of the CIE, may pursue further research and study on a particular topic in innovation or entrepreneurship. The student will be directed by the participating faculty member. The student will meet with the faculty member for regular discussion (Guided Independent Study) or periodic discussion (Traditional Independent Study). The student and faculty mentor will submit an Independent Study proposal clarifying learning expectations, project timeline and deliverables. The student will be expected to comply with all College guidelines concerning such projects. Prerequisite: ENTR—310. (ATTR: BUS)

Film Studies Minor

Dr. Marcela Garcés and Dr. Erich Hertz, Directors

Film has been an artistic and popular medium of exploring representations of the world for over a century now, and film and media studies have grown progressively as an academic discipline for several decades. Film studies expanded rapidly in the 1970s and media studies followed with more analysis of television. Now, digital media in the form of social networks and tremendously popular sites like YouTube are part of everyday life. Smartphones and iMovie now make it possible for anyone to be a filmmaker. These areas are now a well-established and popular course of study at universities throughout the United States and around the world. This discipline also examines the history of film and media aesthetics, technological development, and changes in the production of these visually-centered works, as well as the place of film within cultures around the world. Students who study film in an academic setting learn to analyze this mode of visual representation, while gaining an awareness of the history and theory of the filmic arts. They also learn invaluable writing, critical thinking, visual rhetoric, analytical skills, and research skills that transfer to a variety of professional settings. Knowledge of Film Studies will be useful in a variety of careers. For instance, marketing, television & broadcasting, educational environments that utilize film technology, political campaigning, editorial jobs, and the entertainment industry (writer, director, producer).

Requirements for the Film Studies (18.00 credits):

FILM 200	Introduction to Film Studies	3 cr.
FILM 450	Symposium	0 cr.
Two courses from Area A		6 cr.
One course from Area B		3 cr.
Two courses from Area A and/or Area B		6 cr.

Area A: Topics in Film

Students must take at least two courses (6 credits) from this group

Modern Languages & Classics	
FREN 027	French Cinema
GERM 026	German Cinema
SPAN 025	Spanish Speaking World via Film
English	
ENGL 222	Reading Film
Political Science	
POSC 308	Film and Politics
Creative Arts	
CREA 275	Film Theory and Criticism

Area B: Visual Representation

Students must take at least one courses (3 credits) from this group

Philosophy	
PHIL 240	Philosophy of Art

Sociology SOCI 170	Popular Cultures
Marketing MRKT 212 MRKT 338	Marketing Integrated Marketing Communications
Creative Arts CREA 180 CREA 204 CREA 363	Experimental Video Digital Photo Image and Society

Description of Courses

FILM—200. Introduction to Film Studies 3 credits

This course will introduce the formal and narrative study of film within Western heritage. We will focus on film history, the technology of film production, and the methodology of film studies as an academic discipline. Through screenings, readings, discussion, and writing, students will develop a formal and aesthetic appreciation of film, and acquire a general awareness of film history and its key movements from its beginnings as a black and white silent art form to the contemporary global digital age. We will pay particular attention to the cultural, political, and economic contexts from which it emerges, and how films address questions of humanistic and/or religious concerns rooted in the Franciscan Tradition. This course is a requirement of the Film Studies Minor and it is highly recommended, but not required, as a prerequisite for other Film Minor courses. (ATTR: ARTS, FILM, CFH)

FILM —370. The Spanish-Speaking World Through Film 3 credits

This course, taught in English, includes the study of selected subtitled films, which will be utilized as a visual and aural source to learn about social justice issues in the Spanish-speaking world. Students will learn about the history, politics, and social issues of Spanish speaking populations in Latin America, Spain and the United States. The geographical emphasis will shift among the various Spanish-speaking regions of the world. Possible broad themes include memory, oppression, self-discovery, immigration, exile, identity, assimilation, women's rights, dictatorship, GLBTQ issues, and indigenous rights. With its roots in the ideals of the Franciscan tradition, this course demonstrates how to critically analyze social justice issues in cultural settings depicted in films from the Spanish-speaking world from a variety of perspectives. Does not count towards Spanish major or minor. (Same as SPAN—025) (ATTR: ARTS, CFJ, FILM, GLST, ILST, MULT, LACS)

FILM —450. Symposium 0 credits

This required course demonstrates that the student has participated in the Film Studies Minor Symposium. This course is non-credit and pass/fail. (ATTR: FILM)

First Year Seminar

Dr. Meg Woolbright, Director

The First Year Seminar is a two semester, writing intensive course taken sequentially by first year students. The goal of the Seminar is to prepare our freshmen for the intellectual life of college: how to read critically, how to engage with a text, how to articulate an informed position on big questions, how to write clearly and persuasively, how to voice an opinion in a classroom conversation, how to make connections between and among the readings they are doing, the subjects they are studying, as well as between Siena and the outside world. The First Year Seminar will teach our freshmen how to be students and will do this in a way that introduces them to the story that is unique to Siena and our Franciscan heritage. First and foremost, this course is academically rigorous and is a symbol of academic excellence.

FYSM 100. First Year Seminar I (3 credits) and FYSM 101. First Year Seminar II (3 credits)

Themes for the first semester are: Heritage and Natural World; themes for the second semester are: Diversity and Social Justice. Within each theme, there are a few interdisciplinary readings common to all sections of the course. Individual faculty choose the remaining readings and an overall theme to bring coherence to their sections. The lives and stories of St. Francis and St. Clare are interwoven throughout the year. Under most circumstances, students will remain with the same faculty member and classmates for both semesters.

Forensic Science Minor

Jason D. Hofstein, Ph.D., Director

Forensic Science has become an extremely popular subject in the public eye. It is in the news, film, literature, and television series. Forensic Science is a 19 to 20-hour minor that provides students with a specialization that relates the delicate balance between science, criminal law, crime investigation, and a liberal arts education. The minor allows students from a wide range of disciplines to launch into coursework that examines the scope of knowledge required for understanding and appreciation of forensic detection, resolution, and prosecution.

Although the Forensic Science Minor resides within Chemistry and Biochemistry department, it is designed to allow both non-science and science majors to successfully complete the requirements – the minor is intended to serve *the entire student population of Siena College*. The minor requires a scientific foundation to compliment a major who will seek employment in fields like education, management, law, medicine, natural science, law enforcement, or criminology. It can also fulfill one's need to satisfy his or her curiosity. The existing student and the incoming freshman, both interested in forensics, can rest easy in the fact that a minor in forensics can complement their choice of major. The graduate with this minor will be exposed to the types of scientific instrumentation and techniques employed in forensic investigations and how the science interfaces with (1) other facets of the overall conduct of a forensic investigation (such as crime scene investigation, courtroom expert witness testimony, etc.), and (2) the myriad of topics that forensic science encompasses. Further coursework would be required for a more in-depth treatment of these topics to enable, for example, the student to actually maintain the scientific instrumentation and interpret complex analyses.

In addition, students with more extensive science background may wish to complete this minor as well, in which case they would most likely have the pre-requisites necessary to complete an upper division science elective course.

The forensic science minor brings together as a specialty, an increasing number of forensic-related courses, which are taught at Siena College to form tracks of study with a forensic backing for use in later aspirations, such as employment in a particular field of forensics, or additional academic achievement. The forensic science minor provides students an opportunity to concentrate additional study and coursework on application of scientific methods in crime investigation

Requirements for the Minor in Forensic Science (19.00-20.00 credits):

*POSC 374	Introduction to Criminal Law	OR	
SOCI 190	Crime and Justice		3 cr.
CHEM 100	Introduction to Forensic Science		3 cr.
CHEM 105	Criminalistics		4 cr.
	Forensic Science Electives by Student-Determined Track		9-10 cr.

*POSC 374 is offered every other fall semester

Tracks

Using the guidelines put forth by the American Academy of Forensic Sciences (AAFS)⁰, representative tracks will be summarized based on the following AAFS-recognized sections:

- Forensic Anthropology
- Forensic Criminalistics
- Forensic Digital & Multimedia Sciences,
- Forensic Engineering Sciences
- Forensic General Sciences (including Forensic Accounting, Forensic Archaeology, Forensic Art and Sculpting, Forensic Aviation/Land Vehicle Accident Investigation, Forensic Chemistry, Forensic Consulting, Forensic Credibility Assessment, Forensic DNA Analysis, Entrepreneurship, Forensic Geology, Forensic Geophysics, Forensic Sociology, Forensic Investigation, Forensic Nursing, Forensic Aerial Photography, Forensic Photography, Forensic Radiology, Forensic Veterinary Sciences, Forensic Botany, Forensic Fingerprint Analysis, Forensic Handwriting Analysis, Forensic Entomology, Forensic

⁰ Excerpts From: "So You Want To Be A Forensic Scientist." iBooks. Accessed 4/13/2015

- Limnology, Blood Spatter Analysis, Environmental Forensics, Ethics in Forensic Science)
- Jurisprudence
- Forensic Odontology
- Forensic Pathology/Biology
- Forensic Psychiatry & Behavioral Science
- Questioned Documents
- Forensic Toxicology

Each track will require a student to choose from courses that are related to the track's focus.

As examples, if one were interested in:

- **Forensic Accounting** (The study and interpretation of accounting evidence), one could choose from the following electives: ACCT 400, 420, 430, 460, 462; BUDV 305.
 - **Forensic Art and Sculpting** (Concerning art authentication cases to help research the work's authenticity. Art authentication methods are used to detect and identify forgery, faking and copying of art works, e.g. paintings, prints, sculptures, statues), one could choose from the following electives: CREA 112, 200, 312, 313, 314, 397 (if it is sculpting), 420, 460
 - **Forensic DNA Analysis** (Takes advantage of the uniqueness of an individual's DNA to answer forensic questions such as paternity/maternity testing and placing a suspect at a crime scene, e.g. in a rape investigation), one could choose from the following electives: BIOL 260, 320, 420, 425; CHEM 460.
- Ethics in Forensic Science**, one could choose from the following electives: ENVA 120; PHIL 210, 315; BUDV 305; CREA 117; RELG 260, 360, 365, 370, or the student will work with the director of the minor to chart an appropriate set of courses.

Franciscan Service and Advocacy Minor

This minor provides students with academic and field experiences that focus on working with the poor and marginalized in society. Students of any major are able to select this minor. Through this minor, students will:

1. Receive some formal orientation to the experience.
2. Receive education, prior to and following the experience, directed at a better understanding of:
 - a. The socio-economic factors and structures which negatively impact these groups,
 - b. The basic principles of Catholic Social Teaching, and
 - c. The realization that charity (direct service) is the most basic and minimal, not the most adequate, response to the needs of the poor.
3. Be encouraged to become advocates of the poor and the marginalized after completing their education.

Students intending to pursue a minor in Franciscan Service and Advocacy should declare their intention to the Director of the Franciscan Center for Service and Advocacy and the Dean of their school (Liberal Arts, Business, Science).

Requirements for the Minor in Franciscan Service & Advocacy (18 Credits)

RELG 401	History of the Franciscan Tradition or RELG 265	3 cr.
INSA 400	Seminar in Franciscan Service and Advocacy	1 cr.
INSA 480	Internship in Franciscan Service and Advocacy	2 cr.
Franciscan Service and Advocacy Electives (FSA) (No more than 6 credits in any one department)		12 cr.

Franciscan Service and Advocacy Electives:

ATDV 200	Interdisciplinary Studies: Human Power	
BUDV 305	Business Ethics	
EDUC 210	Issues in Contemporary American Education*	
EDUC 261	Foundation of Language and Literacy*	
ENVA 120	Introduction to Environmental Ethics	
ENGL 285	Topics in English: Literature of Peace and Justice	
PCST 101	Introduction to Peace Studies	
PCST 240	Topics in Peace Studies	
	Economics of Poverty (cross-listed ECON—490)	
	Children in War and Work (cross-listed POSC—359)	
PCST 250	Empowerment, Social Action and Personal Transformation	

PHIL 210	Ethics
POSC 265	Public Policy
POSC 360	Environmental Politics
POSC 310	Interest Group Politics
POSC 485	Internship in Legislative Process
POSC 489	Internship in Public Service Studies
PSYC 120	Psychology of Women
PSYC 260	Social Psychology
RELG 265	Introduction to Catholic Social Teaching
RELG 270	Religion and the Environment
RELG 300	Topics in Religious Studies (when topic is appropriate)
RELG 360	Morals and Medicine
RELG 401	History of the Franciscan Tradition (if not used as required course)
RELG 445	Liberation Theology
SOCI 101	The Sociological Perspective
SOCI 120	Current Social Problems in America
SOCI 210	Race and Ethnic Relations
SOCI 220	Collective Behavior and Social Movements
SOCI 240	Sociology of Aging
SOCI 260	Deviant Behavior
SOCI 350	Social Stratification and Mobility
SOCI 375	Comparative Health Care Systems
SWRK 100	Introduction to Social Welfare and Social Work
SWRK 466	Topics in Social Work

Description of Courses

INSA—400. Seminar in Franciscan Service and Advocacy 1 credit

A course to prepare students for INSA—480 Internship in Franciscan Service and Advocacy. The theological and social principles that provide the foundation for service and advocacy among the poor and marginalized will be discussed, particularly as they are expressed in the Franciscan Tradition, but also as they are understood by other religious traditions. INSA—400 may be counted as elective RELG credit by Religious Studies majors and minors. (ATTR: ARTS)

INSA—480. Internship in Franciscan Service and Advocacy 1, 2, or 3 credits

Field Study in service and advocacy among the poor and marginalized in the local community (i.e. Capital Region). Students will be expected to work in the field for 40 hours for each credit earned. Students will be required to keep a journal/log of their activities, to attend scheduled classroom seminars and to prepare a final report - a paper or a presentation on a project. Students may receive a maximum of 6 credit hours in internship courses, college-wide. Students will work with the Coordinator of the Internship in Franciscan Service and Advocacy to select an appropriate site and to determine the suitable form of the final report. Pass/Fail credit will be given. INSA—480 may be counted as elective RELG credit by Religious Studies majors and minors. (ATTR: ARTS)

Prerequisites:

1. INSA—400 or other courses as determined by the Coordinator of the Internship in Franciscan Service and Advocacy, and
 2. Permission of the Coordinator of the Internship in Franciscan Service and Advocacy
- Ordinarily, INSA—400 and 480 are taken concurrently in the same semester.

For more information, contact the Director of the Center for Franciscan Service and Advocacy.

J. Spencer and Patricia Standish Honors Program

Dr. Lois K. Daly, Director

The College-wide Honors Program fosters the intellectual growth of Siena students through increased opportunities for independent thought and research. In particular, students who enter the program, the Honors Fellows, are challenged through a combination of Honors courses and a culminating Honors Thesis/Project to develop an academic experience best suited to their needs and interests. Honors work requires students to take the lead in developing their own intellectual curiosity and abilities. Limited to 15 students, Honors courses

demand that students take more responsibility for their education. Extensive contact with the faculty and other Honors Fellows both inside and outside the classroom enhance the possibilities for academic and personal growth.

One of the hallmarks of the Honors Program is a wide range of academic opportunities. Departments throughout the College offer Honors courses. Many of these fulfill core, major, certificate, or minor requirements. Moreover, students can major in one subject and write an Honors Thesis/Project in another discipline or combination of disciplines in which they have taken four or more courses.

There are multiple points of entry into the Honors Program. After careful review of the students' college admissions applications, incoming first-year students are invited to become Honors Fellows by the Honors Program Director. Students already enrolled at Siena may apply if they have completed 30 credit hours with an overall average of 3.3. Highly qualified students who are not enrolled in the Honors Program, but who have at least 12 credit hours and a 3.5 GPA in a field of study, may apply to the Honors Committee to do the research component only, starting with the Honors Research Colloquium.

Honors Fellows often participate in Study Abroad, the Education Certification program and in internship opportunities. As with any combination of major, program, and experiential learning, careful planning is necessary. The earlier the student identifies the desired opportunities, the easier it is to work toward them. Honors Fellows must maintain a 3.3 GPA throughout their studies at Siena College.

Requirements:

A. Academic Requirements: 24 credit hours over four years

Honors courses- 15 credit hours (may also satisfy core requirements)

Research component- 9 credit hours consisting of
3 hrs. Honors Research Colloquium
6 hrs. Honors Thesis/Project

B. Service Requirements: Prior to graduation, students must meet a service requirement. This may be accomplished by completion of specified courses with a service component or by completion of an individual contract detailing the kind of service and its relationship to learning.

Description of Courses

HNRS—300. Honors Program Service 0 credits

Each student participating in the Siena Honors Program must complete a service/learning component that is approved by the Honors Director. This requirement may be fulfilled through a specific course or by individual contract. Courses that fulfill this requirement include PCST-480, INSA-400/INSA-480 (total 3 credits), and SWRK-301. The individual contracts must be approved by the Honors Director. The service must be equivalent in time and effort to the courses used for this component. Permission of the Honors Program Director required.

HNRS—350. Honors Research Colloquium 1-3 credits

The Research Colloquium is designed to prepare Honors students to write an Honors Thesis. It provides a forum for students to learn advanced research skills in their respective disciplines, to discuss ideas about a Research Thesis/Project as they evolve, and to discuss the process of planning and preparing that thesis/project. Students will use class time to try out their ideas and to receive constructive criticism; to conduct appropriate literature searches in the discipline(s) in which their thesis falls; and, at the end of the semester, to present final proposals for the thesis/project. In addition, by the end of the course, the students will have a clear and doable topic in hand and a faculty mentor chosen to supervise the work. No final exam. Offered on a pass-fail basis. Prerequisite: completion of at least four honors courses. Permission of the Honors Program Director required. Offered only in the spring semester.

HNRS—400. Honors Thesis I 1-5 credits

Study or research on an advanced topic of the student's choice, supervised by a faculty mentor in consultation with the student's thesis committee. No final exam. Prerequisite: HNRS-350. Permission of the Honors Program Director required.

HNRS—410. Honors Thesis II 1-5 credits

A continuation of Honors Thesis I. No final exam. Prerequisite: HNRS-400, Honors Thesis I (may be taken concurrently). Permission of the Honors Program Director required.

Interdisciplinary Research Methods Certificate

Dr. Daniel Lewis, Director

The Interdisciplinary Research Methods certificate program is designed to provide the students the opportunity to build on the research skills that they acquire in their major and to strengthen their research methods background by taking a comprehensive interdisciplinary approach. Unique to Siena, the program stresses both the theory and practice of research, including both quantitative and qualitative analytical approaches. The program encourages hands-on learning, with the opportunity to work with a broad variety of data resources. Students will have the opportunity to participate in research activities sponsored by the Siena Research Institute and the Center for Undergraduate Research and Creative Activities (CURCA). Moreover, the program gives students the opportunity to acquire an in-depth understanding of the philosophical foundations upon which different methodologies are based.

Requirements for the Interdisciplinary Research Methods Certificate (18.000 – 20.000 credits):

PHIL 330	Philosophy of Science		3 cr.
A qualitative research methods course:			
POSC 178	Political Research I	OR	4 cr.
SOCI 306	Research Methods II		3 cr.
Electives with the INRM attribute:			9-13 cr.
ATDV 110	Statistics for Social Science		
COMD 210	Community Research and Consulting		
CSIS 011	Problem Solving with Spreadsheets		
CSIS 110	Introduction to Computer Science		
CSIS 120	Software Development		
CSIS 210	Data Structures		
ECON 430	Econometrics		
ENVA 210	Environmental Research Methods		
MATH 275	Introduction to Statistics with Computation		
MATH 371	Probability for Statistics		
MATH 470	Mathematical Statistics		
MGMT 336	Management Research Methods		
MGMT 425	Leading Change		
MRKT 336	Marketing Research Methods		
MRKT 437	Applied Research Methods		
POSC 182	Political Research II		
POSC 325	Public Opinion		
QBUS 200	Business Statistics I		
QBUS 210	Business Statistics II		
SWRK 430	Social Work Research		
SOCI 304	Research Methods I		
A culminating experience:			0-3 cr.

The culminating experience can be a credit or a non-credit learning experience that involves the use of qualitative and/or quantitative research methodologies. Students must formally request the recognition of their learning experience by applying to the Director of the Interdisciplinary Research Methods Program. In the request, students will describe how each of the five following program learning goals will be met.

1. understanding of the philosophical assumptions upon which different methodological approaches are based;
2. sensitivity to the important ethical issues that arise when doing research with human subjects, and an understanding of the Institutional Review Board (IRB) application process;
3. understanding of the basic differences and similarities between qualitative and quantitative approaches to doing research, and how different methodologies are used within different disciplines;

4. appreciation for the integration of different methodologies when doing research;
5. the ability and commitment to conduct research that protects the rights of participants, demonstrates responsibility to research and sponsoring organizations, credits the work of others, and respects stakeholders and the natural environment.

Upon completion, students must submit a report that discusses in detail their learning experience and its relevance to the five program learning goals. If the learning experience is taken for credit, the credits can be applied towards fulfilling the 18-19 credit requirement of the program. Examples of culminating experiences may include: a capstone course in the major (3 credits), an honors thesis course (3 credits), participation in the Siena Summer Scholars Program, independent study (1 to 3 credits), and experiential learning (e.g., a Siena Research Institute internship, other research based internships, community based research).

****No more than nine credits in one department count towards fulfilling the requirements for the program.**

International Studies Minor

Dr. Sudarat Musikawong, Director

The International Studies minor complements all majors and prepares students to “address the challenges of an ever-changing world and a diverse society” (Siena College Mission Statement). Students will examine how their decisions and those of other U.S. citizens affect and are being affected by decisions beyond our borders. They will also see that most careers whether in business, social policy/action, and the humanities, are pursued within a global context.

This minor is premised on the definition of globalization as the “growth of relations among people across national borders that creates a complex series of connections that tie together what people do, what they experience, and how they live across the globe.” It also incorporates Siena College’s Franciscan heritage by recognizing that St. Francis and his followers developed networks beyond Italy’s borders and that our contemporary connections must be evaluated in terms of both how they affect human society and all of Creation and how they involve our responsibility to others.

Hence, this minor attempts to enable students to discover their connections and responsibilities to the rest of the world through considering these basic questions in all its designated courses:

1. What are the positive and negative ways in which the people of the world are connected in the twenty-first century?
2. How do I and the people in my community, region and country have global connections with people in other lands?
3. How do individuals, organizations and governments attempt to manage these connections? What are the positive and negative implications for the various management methods and rules? Who benefits and who loses from these decisions? How do these decisions affect the marginalized and the poor?

Requirements for the Minor, International Studies (18.000 credits):

ILST 100 - Intro to International Studies	3 cr.
ILST 490 - International Experience Seminar	3 cr.
Electives	12 cr.

Students should consult with the Director of International Studies as soon as possible (preferably during their first year), in order to discuss the minor's requirements.

Students must take part in a Study Abroad Experience. Once a student has chosen a Study Abroad program, he/she should consult with the Director regarding the applicability of the courses for ILST electives.

Students must demonstrate competency at the Intermediate level in a foreign language.

Description of Courses

ILST—100. Introduction to International Studies 3 credits

This course introduces students to the examination of ways that people of the world, including themselves, are interconnected across national borders and to evaluate the positive and negative implications of the methods for managing that interconnectedness. Prerequisites: None. (ATTR: ARTS, GLST, ILST, CFD)

ILST—200. International Experience 0 credits

This required course demonstrates that the student has participated in an international internship or Siena approved study abroad program. It is recommended that students complete this requirement in the junior year

or first semester of senior year. This course is a prerequisite for ILST-490. Prerequisites: relevant language minimally at the 102 level for country of study is recommended for non-English speaking countries. This course is pass/fail. (ATTR: GLST, ILST)

ILST—202. Intermediate Language 0 credits

This course demonstrates that the student has mastery of a foreign language at the 202 course level or above. This can be met by successfully completing a 202 course or by taking a test of knowledge and skill for that level administered through Siena’s Department of Modern Language and Classics. It is strongly encouraged that the experiential/abroad component of the minor be connected to the language studied. Language skills of students taking languages abroad that are not taught at Siena will be reviewed on a case by case basis by the ILST Director. This course is a prerequisite for ILST 490. This course is pass/fail. (ATTR: GLST, ILST)

ILST—300. Topics: International Studies 3 credits

This course will explore topics in International Studies that are not part of the regular course offerings. Topics will be announced during pre-registration in the preceding semester. This course may be taken more than once with different content. Prerequisites: None. (ATTR: ARTS, BUS, ILST)

ILST—325. International Travel Course 3 credits

As an academic course that includes a required travel component, the class offers three semester hours credit for coursework that includes an intensive travel-study program in selected geographical areas. The travel experience enhances the study of the impact of globalization on peoples worldwide. Lectures, supervised research into aspects of the course, and orientation meetings will prepare students for an informed experience. This course may be taken more than once with different content. Permission of instructor required. Travel cost paid by student. Cost varies each semester. (ATTR: ARTS, BUS, ILST)

ILST—490. International Experience Seminar 3 credits

This course helps students evaluate and integrate their international experience and International Studies courses. Prerequisites: ILST—200, ILST—202, and permission of the International Studies Director. (ATTR: ARTS, ILST)

Course	Attribute	Title
BUDV 201	ILST	Global Business Environment
BUDV 420	ILST	Global Connection
CREA 231	ILST	Art to the 15 th Century
ECON 255	ILST	Comparative Economics
ECON 360	ILST	Economic Development
ECON 370	ILST	International Trade Theory
ENVA 240	ILST	Sustainable Tourism
FINC 413	ILST	International Finance
FREN 027	ILST	French Cinema
FREN 330	ILST	French Civilization
FREN 340	ILST	Civilization of Québec
GERM 025	ILST	Twentieth Century Germanic Literature in Translation
GERM 026	ILST	Twentieth Century German Cinema
GERM 027	ILST	U.S. and German Media
ILST 300	ILST	Topics: International Studies
ILST 325	ILST	International Travel Courses
HIST 101	ILST	The Shaping of the Contemporary World
HIST 102	ILST	The West and the World to 1500
HIST 103	ILST	West and the World 1500-1900
HIST 303	ILST	America and the World I: U.S. Foreign Relations 1776-1920
HIST 253	ILST	Europe, 1914-1945

HIST 256	ILST	Contemporary Europe Since 1945
HIST 305	ILST	America and the World II: U.S. Foreign Relations in the 20 th Century
HIST 330	ILST	The Middle East: Foundations of the Modern Experience
HIST 333	ILST	The Middle East in Modern Times
HIST 350	ILST	History of East Asia I
HIST 353	ILST	History of East Asia II
HIST 370	ILST	Africa I: Genesis of Modern America
HIST 373	ILST	Africa II: The Modern Transition
HIST 375	ILST	Women in European History
HIST 411	ILST	Slavery in Historical Perspective
HIST 457	ILST	American Immigration in Historical Perspective
HIST 465	ILST	Spanish Borderlands
MGMT 334	ILST	International Management
MRKT 334	ILST	International Marketing
POSC 150	ILST	World Politics
POSC 250	ILST	International Organizations
POSC 257	ILST	Terrorism: Causes and Cures
POSC 346	ILST	Middle East Politics
POSC 378	ILST	International Law
RELG 210	ILST	Islam
RELG 280	ILST	World Religions
RELG 357	ILST	Global Catholicisms
RELG 385	ILST	Buddhist Traditions
RELG 390	ILST	Religion and Globalization
SOCI 140	ILST	Cultural Anthropology
SOCI 160	ILST	Environment and Society
SOCI 180	ILST	Area Studies
SOCI 240	ILST	Growing Older in a Global Environment
SOCI 320	ILST	Global Cities
SOCI 370	ILST	Medical Sociology
SOCI 376	ILST	Health Care in the Developing World
SOCI 380	ILST	Population Problems
SPAN 026	ILST	Spanish Medieval and Early Modern Literature in Translation
SPAN 027	ILST	Women Writers from Latin American: Literature in Translation
SPAN 335	ILST	Pop Culture in the Spanish-speaking World
SPAN 350	ILST	Spanish Civilization
SPAN 360	ILST	Spanish American Civilization

International Studies Foreign Languages and Business Certificate Program

Carolyn F. Malloy, Ph.D., Director

This certificate program, open to all students, responds to the need for understanding the international and interdependent dimensions of business in the modern world. It also provides preparation for careers in international business and for graduate programs in areas with an international focus.

The goals of this program are: to aid students in their understanding of the international and interdependent character of the contemporary world; to enable students to deepen their awareness of the international dimensions of American business; to prepare students for careers in international business by providing them with language competency and knowledge of international affairs; to provide knowledge and training in international business within the context of a liberal, humanistic, and ethical tradition.

Admission to the program requires permission of the director. Students interested in the program are advised to meet with the director by the first semester of their sophomore year.

Requirements for the International Studies Certificate (42.000 credits):

1. Language Competency

Two courses beyond the intermediate level, or the equivalent background. 6 cr.

2. Foundational Courses

RELG 365 - Religion, Values, and Business	OR	
PHIL 210 - Ethics	OR	
BUDV 305 - Business Ethics	OR	
ENVA 120 - Environmental Ethics		3 cr.

ACCT 200 - Financial Accounting		3 cr.
ECON 101 - Principles of Economics, Micro		3 cr.
ECON 102 - Principles of Economics, Macro		3 cr.

Two of the following: 6 cr.

FINC 212 - Money and Banking		
FINC 301 - Managerial Finance I		
FINC 302 - Managerial Finance II		
MGMT 211 - Management		
MRKT 212 - Marketing		

3. International Focus Courses

Student must complete 9-12 hours of humanities and/or social science courses dealing specifically with international issues. 9-12 cr.

Student must complete 3-6 hours of courses in international business. 3-6 cr.

Student must successfully complete an International Internship:

ATDV 781 - International Internship, Arts		
BUDV 781 - International Internship, Bus		3 cr.

Journalism Minor

Dr. Rebecca Taylor, Director

The Journalism minor provides theory and practice in the study of journalism. Students learn to write and to create content across multiple platforms, and to master the basic principles of media law and professional ethics consistent with the College's Franciscan values.

Requirements for the Minor, Journalism (18.000 credits):

JOUR 100	Introduction to Journalism	3 cr.
JOUR 105	Communications Law	3 cr.
JOUR 300	Reporting	3 cr.
JOUR 415	Journalism Internship	3 cr.

Students must complete 6 credits from the following elective courses: 6 cr.

JOUR 270	Documentary Video
JOUR 310	Sports Writing and Reporting
JOUR 320	Special Topics in Journalism
JOUR 400	Production Workshop
JOUR 405	Feature Writing and Reporting
JOUR 410	Journalism Practicum
JOUR 415	Journalism Internship*
JOUR 420	Independent Study in Journalism
JOUR 430	Multimedia Production
JOUR 460	Advanced Communications Law

*A second internship may be taken as an elective

Description of Courses

JOUR—100. Introduction to Journalism 3 credits

A basic introduction to reporting and writing the news. Students learn what constitutes news, how to develop news stories and the basic audio and video elements required to produce news reports. Students will explore legal and ethical issues in journalism. (ATTR: ARTS, NOEX, BCST) (*Previously CREA—108*)

JOUR—105. Communications Law 3 credits

A survey of communications law including libel, privacy, confidentiality, and access to information. This course also covers key ethical issues faced by journalists including finding facts through a variety of sources, dealing with conflict of interest, and avoiding harm. (ATTR: ARTS, BCST, CFJ, MUMD) (*Previously CREA—117*)

JOUR—270. Documentary Video 3 credits

This course explores documentary video production. Students produce audio and visual reports to tell true stories. Laboratory sessions are devoted to production and postproduction activities. Prerequisite: JOUR—100 . Lab fee. (ATTR: ARTS, BCEL, NOEX) (*Previously CREA—280*)

JOUR—300. Reporting 3 credits

This course is a practical examination of journalistic reporting. Students practice covering actual news events for print and broadcast news. Students will develop interviewing skills, learn to shoot and edit news reports and write stories across multiple platforms. Prerequisite: JOUR—100.(ATTR: ARTS, BCST, CFH) (*Previously CREA—360*)

JOUR—310. Sports Writing and Reporting 3 credits

This course explores various aspects of sports writing and reporting. Students are taught to develop stories for print, radio, television and on-line publications. Students are assigned readings that illustrate strong storytelling techniques, and learn to craft basic hard news stories as well as feature reports and profile pieces. Students learn the fundamentals of shooting and editing video. Students learn to create content under deadline pressure that conforms to legal and ethical standards. Prerequisite: JOUR—100. (ATTR: ARTS, BCEL, NOEX) (*Previously CREA—380*)

JOUR—320. Special Topics in Journalism 1-3 credits

This course provides an opportunity to explore selected areas of study not in the regular journalism offerings. Topics vary depending on student and faculty interest. May be taken more than once with different content. A field trip may be required. Prerequisite: JOUR—100 and approval of instructor. (ATTR: ARTS, BCEL, NOEX) (*Previously CREA—385*)

JOUR—400. Television Production Workshop 3 credits

This course is a practical introduction to the aesthetic principles, creative process and technology used to create multi-camera and single camera television programs in the studio and in the field. It also introduces the postproduction process and video editing using non-linear software along with newly emerging digital technology. This course examines television production methods required for both non-fiction programming

such as broadcast news and fiction-based productions. Prerequisite: JOUR—100. (ATTR: ARTS, BCEL, NOEX) (Previously CREA—435)

JOUR—405. Feature Writing and Reporting 3 credits

This course examines all aspects of writing and reporting nonfiction feature reports for various media platforms. Student projects include human interest stories and profile pieces. Topics addressed include Associated Press Style, literary journalism, researching source material, interviewing subjects, and audio/visual storytelling techniques. Students shoot and edit video using HD cameras and Final Cut Pro software. Prerequisite: JOUR—100. (ATTR: ARTS, BCEL, NOEX) (Previously CREA—440)

JOUR—410. Journalism Practicum 1-3 credits

This course awards academic credit to eligible students to create advanced media content for a semester-long project designed to further the student's application of writing and production skills. The number of credits awarded will be determined in advance by the Director of the Journalism Minor on the basis of workload and the degree of difficulty of the assignment. Creation of substantial media work in addition to a satisfactory written report and a practicum journal will determine the final grade. JOUR-410 may be taken more than once to a maximum of six credits, but may not exceed three credits in any one semester. Prerequisite: Permission of the Director of the Journalism Minor. (ATTR: ARTS, BCEL, NOEX) (Previously CREA—470)

JOUR—415. Journalism Internship 1-3 credits

This internship provides students with practical experience in a professional media environment. Performance at the host media company, in addition to a satisfactory written report and an internship journal will determine the final grade. CREA-481 may be taken more than once to a maximum of six credits, but may not exceed three credits in any one semester. Prerequisite: Permission of the Director of the Journalism Minor. (ATTR: ARTS, BCEL, BCST, NOEX) (Previously CREA—481)

JOUR—420. Independent Study in Journalism 1-3 credits

Students may pursue a topic of their choosing related to journalism that must be submitted in writing and approved by the Director of the Journalism Minor. (All independent study courses are subject to approval of CURCA in accordance with College policy.) Permission of the Director of the Journalism Minor. (ATTR: ARTS, BCEL, NOEX) (Previously CREA—495)

JOUR—430. Multimedia Production 1-3 credits

This course is designed to introduce students to interactive media and online reporting. Students will learn the technology required to create a web site. They will learn to write for new media, particularly the internet. Students will also practice using the internet for journalistic research. This course will also be open to students interested in using the internet for distributing their creative work. No previous experience with web design is required. Prerequisite: JOUR—100 and JOUR—300. (ATTR: ARTS, BCST) (Previously CREA—430)

JOUR—460. Advanced Communications Law 3 credits

This course provides an advanced exploration of contemporary cases in modern media law. Through intense scrutiny of contemporary media cases, students gain an enhanced understanding of the intersection of media law and journalistic ethics in the coverage of breaking news stories, and the applicability of libel law and invasion of privacy torts to the dissemination of information through social media and traditional media outlets. Students will further their writing skills, and develop original legal analyses that reflect critical thinking and require collaboration with classmates on team projects. Prerequisite: JOUR—105 or CREA—117. Permission of instructor required. (ATTR: ARTS, BCEL)

Latin American and Caribbean Studies Certificate

Vera Eccarius-Kelly, Ph.D., Co-Advisor

Lisette Balabarca-Fataccioli, Ph.D., Co-Advisor

The Certificate in Latin American and Caribbean Studies permits students of any major to pursue concentrated and multidisciplinary study of Latin America and the Caribbean. The certificate promotes intellectual discussion, research, and teaching about Latin America and the Caribbean with a focus on its people, languages, culture, history, politics and society. Rooted in the identity of Franciscanism, the interdisciplinary course of study will develop critical and creative thinking that emphasizes appreciation of cultural diversity as well as promoting a better understanding of the complex relationship between the nations of our hemisphere. The certificate is a

complement to students interested in Marketing, Management, Economics, Finance and investments, public affairs, Spanish, English, French, Sociology, History, and Political Science.

Requirements for the Certificate, Latin American and Caribbean Studies (18.000 credits):

Foundational course:

HIST 241	Latin America: The Colonial Period	OR	
HIST 243	Latin America: The National Period		3 cr.

The foundational course (HIST 241 and/or 243) must be taken at Siena College. Students may take both HIST 241 and HIST 243; the course taken at Siena will count toward the foundational requirement and the other course (taken at Siena or abroad) will count as the Historical Process requirement (LAHP).

1 LACS course from "Historical Process" (LAHP)	3 cr.
1 LACS course from "Language and the Arts" (LALA)	3 cr.
1 LACS course from "Modern Socio-Cultural and Scientific Experience" (LASS)	3 cr.
2 additional LACS elective courses	6 cr.

Language Requirement: Students must successfully complete SPAN 202 or French 202, or complete the equivalent of four semesters of college/university language study in the target language.

The language requirement may be achieved by course work at Siena or another institution, study abroad, or testing through the Modern Language and Classics Department at Siena.

Each student must either complete appropriate Study Abroad experience or an internship. Study Abroad is highly recommended.

Arrangements for Study Abroad are made through the International Programs and Study Abroad Office in consultation with the director of the certificate. These courses must be approved by the Assistant Dean for Student Services.

No more than 6 hours of approved independent study may apply to the 18 hour requirement.

No more than 9 hours can be taken in the same department.

HIST 241 and HIST 343 must be taken at Siena College.

Courses:

Historical Process

HIST 241 Latin America, Colonial Period (foundational choice)
HIST 243 Latin America, National Period (foundational choice)
HIST 345 History of Mexico
HIST 411 Slavery in Historical Perspective
HIST 465 Spanish Borderlands
HIST 480 Internship in History (when appropriate)
HIST 495 Independent Study (when appropriate)
HIST 499 Capstone (when the topic is appropriate)
HIST 390 History Honors (when the topic is appropriate)
HIST 490 History Honors (when the topic is appropriate)

Language and the Arts

FREN 380 The Short Story
FREN 495 Independent Study in French (when appropriate)
SPAN 025 Spanish Speaking World Through Film
SPAN 027 Women Writers from Latin America in Translation
SPAN 301 Communication in Spanish I
SPAN 302 Communication in Spanish II
SPAN 305 Spanish Language Study Tour (when appropriate)
SPAN 320 Introduction to Hispanic Prose
SPAN 335 Pop Culture in the Spanish-Speaking World
SPAN 360 Spanish American Civilization

SPAN 400 Topics in Spanish (when appropriate)
SPAN 495 Independent Study in Spanish(when appropriate)
ENGL 271 Latino/a Literature
ENGL 499 Independent Study (when appropriate)

Modern Socio-Cultural and Scientific Experience

CREA 297 Special Topics in Creative Arts (when appropriate)
CREA 497 Independent Study in Creative Arts (when appropriate)
POSC 347 Latin American Politics
POSC 359 Special Studies in World Politics (when appropriate)
POSC 450 Political Science Travel Course (when appropriate)
POSC 490 Political Science Honors (when appropriate)
POSC 499 Independent Study in Political Science (when appropriate)
PHIL 499 Independent Study (when appropriate)
RELG 357 Global Catholicism
RELG 445 Liberation Theology
RELG 499 Independent Study (when appropriate)
SOC 499 Independent Study (when appropriate)
ATDV 779 Topics in Intercultural Understanding, Arts (when topic on Latin America or the Caribbean)
BUDV 779 Topics in Intercultural Understanding, Business (when topic on Latin America or the Caribbean)
BUDV420 Global Connection (when topic on Latin America or the Caribbean)
BIOL 235 Tropical Biology (has Biology prereqs)
BIOL 245 Tropical Marine Ecology (has Biology prereqs)

Medieval and Renaissance Studies Minor

Karen Sonnelitter, Ph.D., Director

The Minor in Medieval and Renaissance Studies is a part of Convivium, Siena’s Center for Medieval and Early Modern Studies. The name “Convivium” refers to a feast: a “banquet of the mind.” In a pragmatic and practical world, it reminds us that learning at its best is not only functional, but is filled with joy, wonder, and discovery. Convivium offers students the opportunity to do individual research and to take courses with faculty who are nationally active in Medieval and Renaissance studies across a variety of disciplines.

Convivium also fosters a regional community of teacher-scholars, sponsors conference presentations, and enriches Siena’s library. The Convivium Collection consists of Medieval and Renaissance manuscript leaves, early printed editions, facsimiles, and rare books for teaching and research.

The Minor in Medieval and Renaissance Studies is an interdisciplinary program designed to provide students with a full immersion in the civilization of Europe and its surrounding areas, roughly from 500 to 1800. Students in this field will integrate perspectives from different disciplines in order to understand the full range of Medieval and Early Modern culture.

Requirements for the Minor, Medieval and Renaissance Studies (18.000 credits):

MRST 400	3 cr.
Courses with MRST attribute	15 cr.

Students must take courses drawn from at least 3 different departments.

Description of Courses

MRST—100. Renaissance and Renewal: Introduction to Medieval and Renaissance Studies 3 credits
Set between the crumbling of the Roman Empire and the time commonly called the Enlightenment, the Medieval and Renaissance periods encompassed a time of religious diversity, cultural contact, and shifting gender roles. Medieval and Renaissance Studies, a multidisciplinary field, introduces students to the founding traditions of Western Society. This course is an introduction to the nature and methodology of the field; the primary source materials including documents, poetry, music, art, letters, laws, and/or other sources; and the disciplines that comprise medieval and Renaissance studies. (ATTR: ARTS, CAH, MRST)

MRST—400. Senior Project 3 credits

A senior year, interdisciplinary, independent study project, designed in consultation with a Project Advisor and a Reader, and approved by the MRST Program Director. (ATTR: ARTS, MRST)

Multicultural Studies Minor

Dr. Lisa Nevárez, Director

Multicultural Studies is an interdisciplinary and comparative program that encompasses scholarship about intercultural relations and constructions of race/ethnicity in social, cultural, historical, political, and economic contexts. The Multicultural Studies minor at Siena introduces students to in-depth analysis of race/ethnicity and culture in the United States and in the nations of origin of peoples of non-European descent. Multicultural Studies courses promote an appreciation of human diversity, and contextualized understanding of the complex history of intercultural relations within the United States and the larger world.

Requirements for the Minor, Multicultural Studies (18.000 credits):

MULT 400 - Multicultural Studies Seminar	3 cr.
1 Comparative Multicultural course (MCCP)	3 cr.
4 elective courses attributed with MULT	12 cr.

Students should not take more than 3 courses in one department and should select courses in consultation with the Director of the Program, Dr. Lisa Nevárez who can be reached at lnvarez@siena.edu

Description of Courses

MULT—200. Race and Identities 3 credits

This course follows the pedagogy of Intergroup Relations (IGR). Students will engage thoughtfully with their peers in dialogues on the topics of race. Enrollment is by instructor permission. (ATTR: ARTS, MULT)

MULT—300. Topics in Multicultural Studies 1-3 credits

This course will explore topics in Multicultural Studies that are not part of the regular course offerings. Topics will be announced during registration in the preceding semester. This course may be taken more than once with a different content. (ATTR: ARTS, MULT)

MULT—400. Seminar in Multicultural Studies 3 credits

This seminar provides advanced cultural critique and exposure to contemporary innovative, multicultural theory and its applications. Students will challenge the limitations of western scholarship by applying or developing multicultural methodology in a major research project on a non-western topic. The course may also include personal and group interactions with multicultural individuals and community environments. Prerequisite: Students must have completed three courses in Multicultural Studies prior to this course or obtain permission of the instructor. (ATTR: ARTS, MULT)

Comparative Multicultural Courses (MCCP)

MULT—180 POSC—140 Comparative Politics

MULT—182 SOCI—140 Cultural Anthropology

MULT—280 SOCI—210 Race and Ethnic Relations

MULT—282 ENGL—285 Growing Up in America

MULT—284 ATDV—210 WSTU—100 Perspectives in Women's and Multicultural Studies

MULT—286 POSC—250 United Nations

MULT—380 RELG—380 Religions of Native Peoples

MULT—382 ENGL—272 Literature of the War in Viet Nam

MULT—384 ECON—360 Economic Development

MULT—386 MRKT—334 International Marketing

MULT—482 RELG—445 Liberation Theology

Multicultural Studies Electives

African American/Africa Courses

MULT—110 SOCI—180 Peoples of Africa

MULT—210 RELG—210 Introduction to Islam

MULT—212 CREA—297 Special Topics in Creative Arts — World Music/Africa

MULT—310 HIST—370 Africa I

MULT—312 HIST—373 Africa II

MULT—314 SOCI—385 Topics in Sociology — Civil Rights Era

MULT—316 ENGL—262 African American Literature
MULT—410 HIST—275 African American History
MULT—412 HIST—411 Slavery in Historical Perspective
MULT—414 HIST—281 Conflict in South Africa

Latino/Latina Latin America Courses

MULT—030 SPAN—027 WSTU—330 Women Writers from Latin America in Translation
MULT—330 HIST—241 Latin America — Colonial Period
MULT—332 HIST—243 Latin America — National Period
MULT—334 HIST—345 History of Mexico
MULT—335 ENGL—271 Latino/a Literature
MULT—336 SPAN—360 Spanish American Civilization
MULT—338 POSC—347 Latin American Politics
MULT—430 HIST—465 Spanish Border Lands
MULT—432 SPAN—460 Latin American Literature

Asian American / Asia Courses

MULT—340 HIST—350 History of East Asia I
MULT—342 HIST—353 History of East Asia II
MULT—344 HIST—355 South East Asia, Mainland
MULT—345 ENGL—268 Asian-American Literature
MULT—446 HIST—357 South East Asia, Archipelago and Islands
MULT—348 HIST—285 History of Modern China
MULT—350 HIST—287 History of Modern Japan
MULT—352 POSC—275 Asian Politics
MULT—354 RELG—385 Buddhist Traditions

Native American Courses

MULT—360 ENGL—265 Native American Literature

Arab American/Middle Eastern Courses

MULT—210 RELG—210 Introduction to Islam
MULT—370 HIST—330 The Middle East: Foundations of the Modern Experience
MULT—372 HIST—333 The Middle East in Modern Times

Multimedia Minor

Director: Scott Foster, MFA, Assoc. Professor
Visiting Asst. Prof.: Ms. Germaine Gatewood

The multimedia minor prepares students in academic, professional, and practical areas to work in the dynamic field of multimedia and to pursue further studies in multimedia. The minor and an appropriate associated major can allow significant concentration on multimedia in the creative arts, computing, or business. The minor in multimedia requires 18 credits in a coherent variety of courses beyond the ones taken in majors related to the multimedia. The functional skills and knowledge provided in the minor include fundamentals of art, interactive media, multimedia systems design and development, web systems development, visual and audio media production and editing, oral and written communication, working in teams, working with clients, and ethical behavior in the work environment.

Because of the interdisciplinary nature of the program, many Multimedia courses are cross-listed in other departments of the College. The course descriptions, including the years when they are offered and the prerequisites, can be found in the appropriate departmental section of the catalog. It is anticipated that students pursuing a Minor in Multimedia and students who take only selected courses without pursuing the minor will choose the MUMD number. Courses that are counted toward a student's major may not also be counted toward the minor. The content and requirements of cross-listed courses are not affected by which course number the student selects for registration

Requirements for the Minor, Multimedia (18.000 credits):

CREA 112 - Basic Design I	3 cr.
CSIS 180/MUMD 190 - Web Design	3 cr.
MUMD 490 - Multimedia Team Project	OR
One of the following internship or independent study courses: *	3 cr.
ATDV 480 - Internship in Arts Division	
BUDV 482 - Internship in Business	
SCDV 480 - Internship in Science	
ATDV 499 – Independent Study in Liberal Arts	
BUDV 499 – Independent Study in Business	
SCDV 499 – Independent Study in Science	
Any three of the following elective courses:	9 cr.
CSIS 110 - Intro to Computer Science**	
CSIS 114 - Management Information Systems**	
CREA 117 - Communications Law and Ethics	
CREA 180 - Experimental Video	
CREA 204 - Digital Photography	
CREA 309 - New Art Forms	
CREA 325 – Graphic Design	
BUDV 305 - Business Ethics	

*An independent study or internship course must be related to multimedia and must be approved by the multimedia director/advisor.

**Only one of these courses may be completed for credit in the minor.

Description of Courses

MUMD—190. Web Design (2 hours lecture and 2 hours lab) 3 credits

Web Design is a hands-on course covering the history and development of the Internet, the Web and the core technologies used to implement modern websites. Students will design and implement websites using semantic markup languages, style sheets, and various software tools and applications. The course will include techniques for integrating a wide range of media formats, and design fundamentals needed in implementing effective, user-friendly websites. Prerequisite: None. Lab fee. (Same as CSIS—180.) (ATTR: ARTS, MUMD)

MUMD—490. Multimedia Team Project 3 credits

Teams of students in the Multimedia Minor program work on semester-long projects. The teams should comprise students from different areas of expertise in multimedia, and they should develop realistic applications similar to those found in the professional workplace. A goal of the course is to help students integrate the knowledge and skills they acquired in previous courses and demonstrate their ability to develop realistic products. Prerequisite: CSIS—110, CREA—112, MUMD—190. Offered each spring semester. Computer use fee.

Peace Studies Program

Co-Director: Dr. W.T. Dickens and Dr. Dirk de Jong

“Peace is not merely the absence of war... but... is rightly and appropriately called ‘an enterprise of justice’.” — Isaiah 32:17

(Pastoral Constitution #78 Vatican II)

Peace Studies at Siena is a multi-disciplinary scholarly, practical, and personal pursuit that examines many social justice topics, such as the origins, causes, and justifications of war and other systems of state, group, and interpersonal violence; a just world community; global environmental concerns; intercultural understanding; and non-violent alternatives to injustice, violence and war.

The Siena College Peace Studies program is inspired by Jewish and Christian principles of peace and justice and the values and example of Francis of Assisi, who encouraged humans to be peacemakers not only in their own lives but in the world at large. This vision of peace and justice can be found in many life-affirming religious and

philosophical traditions, and has informed the words and actions of many peacemakers, such as Mahatma Gandhi, Martin Luther King, Jr. and Dorothy Day.

The program subscribes to the following general principles articulated by Joseph Fahey in Education for Justice and Peace:

1. Peace education must be solidly academic in nature: scholarly research is basic to the program, and students are strongly encouraged to consider as many perspectives as possible, not solely that of peace researchers.
2. Peace studies is multidisciplinary in methods: peace studies is problem-centered and thus requires the perspectives and methodologies of many disciplines.
3. Peace studies is 'reconstructionist' in nature: students should think about the future and about what reforms or inventions may be necessary to produce a more desirable society or world.
4. Peace studies requires a moral commitment: although as academics we seek objectivity in our research methodology, we also acknowledge the role of values in the choice of topic and the determination of what is desirable. Peace studies explicitly states its position as being for peace and life and against violence and injustice.
5. Peace studies must have a 'practical' orientation: students should realize the applicability of their knowledge towards advancing the goals of peace and justice.

Requirements for the Peace Studies Certificate (24.000 credits):

PCST 101 - Introduction to Peace Studies	3 cr.
PCST 480 - Internship in Peace Studies	3 cr.
PCST 490 - Seminar in Peace Studies	3 cr.
Peace Studies Electives	15 cr.

Appropriate electives are determined through consultation between the student and the Peace Studies Director.

No more than 2 courses can be taken in any one department.

Requirements for the Minor, Peace Studies (18.000 credits):

PCST 101 - Introduction to Peace Studies	3 cr.
PCST 480 - Internship in Peace Studies	3 cr.
PCST 490 - Seminar in Peace Studies	3 cr.
Peace Studies electives	9 cr.

Appropriate electives are determined through consultation between the student and the Peace Studies Director. Peace Studies Certificate students and Peace Studies Minor students are also eligible to participate in the American University Washington Semester Peace and Conflict Resolution track. After consultation with the Washington Semester coordinator, Dr. Dan Lewis and the Peace Studies Director, students selecting this option may substitute PCST—789 for PCST—480, and may apply ATDV—788 or POSC—790 through 797 toward their Peace Studies electives. See the Washington Semester program section of the catalog for a program description.

Description of Courses

PCST—101. Introduction to Peace Studies 3 credits

An introduction to the peace studies approach to conflict and conflict resolution from the interpersonal through the international level. Emphasizes the concepts of peace; conflict; violence; the origin, causes, and nature of war; the morality of war; alternatives to war and violence; social justice and injustice; just world order; nonviolent conflict resolution; and intercultural understanding. Course also open to students not electing the certificate. (ATTR: ARTS)

PCST—240. Topics in Peace Studies 3 credits

An examination of a particular topic which deals with the concepts of peace, conflict, nonviolence, and social justice. (ATTR: ARTS)

PCST—250. Empowerment, Social Action and Personal Transformation 3 credits

This course investigates the ways in which a commitment to nonviolent social action can transform and significantly empower people to bring about changes in themselves and in the larger society. By examining

power and the means of resisting and acquiring it, by studying the ideas and accomplishments of several social activists, and by carrying out one or more projects aimed at social improvement, the instructors hope to assist the students in understanding how people can act to take control of their lives and achieve their goals for attaining a more peaceful and just world. (ATTR: ARTS, FSPC, PCST)

PCST—480. Internship in Peace Studies 3 credits

Provides students with experience using the peace studies approach to peace, conflict resolution and social justice through placement with private and governmental organizations. Students are required to work 8 to 10 hours per week. Evaluation is made by the staff of the participating institution and the Peace Studies Program Director. Prerequisites: PCST—101 and permission of the Director. (ATTR: ARTS)

PCST—490. Seminar in Peace Studies 3 credits

An integration of the Peace Studies program which involves examining and carrying out scholarly research on some particular aspects of peace, war, conflict resolution, violence, nonviolence, social justice or injustice, intercultural understanding, or a just world order. Prerequisites: PCST—101, PCST—480 or PCST—789, and at least 9 credits of Peace Studies electives. (ATTR: ARTS)

*****PCST—789. Washington Semester Peace Studies Internship 4 credits**

This is the Peace Studies Internship for the Washington Semester Program, Peace and Conflict Resolution track. It provides students with a firsthand experience as a member of a staff directly involved in peace building and conflict resolution. The internship will be available with congressional offices, research think tanks and interest groups. Students will work two full days each week of the semester. Student evaluations will be based upon criteria established by academic and office supervisors. Prerequisites: PCST—101, POSC—100 and the permission of both the Peace Studies Director and the Washington Semester Coordinator, Dr. Dan Lewis. (ATTR: ARTS)

Pre-Law Studies Certificate Program

Dr. Leonard Cutler, Director

Any student who has interest in pursuing legal study should get the most from their undergraduate education at Siena College. While no one curricular path serves as the gateway for preparation for law school, students should choose courses, whether in business, humanities, natural sciences or social sciences that sharpen their analytical reasoning and writing skills.

Intensive preparation for the study of law has provided our students with acceptance and matriculation to several of the most distinguished law schools in the United States including Ohio State University, Villanova, University of Virginia, and the College of William and Mary. Our alumni, upon graduation from law school, have entered major fields of law practice which include public service, private and corporate law, and the judicial profession.

Unlike a premedical curriculum that contains specific courses, some of which are mandatory, there is no sequence of prelaw courses at Siena College. It is important that students be introduced to broad legal principles and the case law approach to provide them with an informational basis to decide whether they want to continue with a legal education.

Requirements for the Pre-Law Certificate (21.000 credits):

PHIL 103 – Reason and Argument	OR	
PHIL 155 - Logic		3 cr.
MATH 010 - Finite Mathematics	OR	
QBUS 200 – Business Statistics		3 cr.
WRIT 100 - Rhetoric and Writing		3 cr.
BLAW 200 - Legal Environment of Business	OR	
BLAW 310 - Commercial Transactions		3 cr.
MGMT 113 - Business Communication	OR	

WRIT 220 – Rhetoric and Oral Communication		3 cr.
POSC 370 - Civil Liberties I (Offered Alternate Fall)	OR	
POSC 372 - Civil Liberties II (Offered Alternate Spring)		3 cr.
POSC 374 - Intro to Criminal Law (Offered Alternate Fall)	OR	
POSC 376 - The 4th, 5th,6th Amendments (Offered Alternate Spring)		3 cr.

All of the above courses are useful for enhancing communication skills, critical and analytical thinking for the LSAT, and the first-year curriculum at most law schools.

Siena College maintains cooperative 4/3 programs with three law schools (listed in the Affiliation/Articulation Agreements section of the catalog).

Students interested in attending Law school should visit and consult with Dr. Leonard Cutler, Pre-Law Advisor, and review with him the Law School handbook, law school catalogs, and application forms and information on the Law School Admission Test (LSAT). Additional information and other publications on the study of law are available at the Office of Career and Professional Development.

Certificate in Public History

Dr. Karen Ward Mahar, Director

The Certificate Program in Public History is an interdisciplinary program that combines history, creative arts, and business to prepare students for careers in public and applied history as practiced by museum professionals, historical interpreters, historic preservationists, corporate historians, and others. It is open to any major and combines theory with hands-on experience, culminating in an intensive capstone internship that asks students to combine theory with practice under the guidance of a public history professional. Advising is key to success in this program, as students exploring careers in archaeology, historic preservation, documentary filmmaking, or conservation may require more specialized coursework.

Requirements for the Public History Certificate (21.000 credits):

AMST 475/HIST 475	Public History	3 cr.
HIST 483	Public History Capstone	3 cr.
3 credits in American History (HAM)		3 cr.
3 credits in an elective History Course 200-level or above		3 cr.

Students must complete 3 cr. in each of the following elective areas:

Historical Content:		3 cr.
AMST 401	Colloquium in American Studies*	
ATDV 105	Topics in Film*	
ATDV 781	International Internship*	
ENGL 222	Reading Film*	
HIST/AMST/ATDV 480	Internship	
3 credits in a 200-level or above History Course		
Art & Design:		3 cr.
CREA 145	Introduction to Theatre Design	
CREA 231	Art to the 15 th Century	
CREA 232	Art from the 15 th Century	
CREA 255	American Art	
CREA 297	Special Topics in Creative Arts*	
CREA 325	Graphics	
CREA 430	Multimedia Interactive Design	
CREA 112	Basic Design I	
CREA 204	Digital Photography	
CSIS 180	Web Design	

Administration:		3 cr.
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ACCT 200	Financial Accounting
BLAW 200	Legal Environment of Business
MGMT 113	Business and Organizational Communication
MGMT 211	Management Principles
MRKT 212	Marketing
MRKT 325	Advertising

**When topic is appropriate.*

Certificate in Revolutionary Era Studies

Jennifer Dorsey, Director of the McCormick Center for the Study of the American Revolution

Siena College's McCormick Center for the Study of the American Revolution is a community engaged teaching and learning program rooted in the traditions of liberal learning, service and advocacy. We partner with nonprofits and the public sector to develop and share educational programming about the history of New York State and colonial and Revolutionary America. Our educational practices are student-centered and civic minded. We provide Siena students with personally meaningful leadership and learning opportunities that advance history education and prepare them for life, work and active citizenship.

The mission of the Siena College McCormick Center for the Study of the American Revolution is to foster greater appreciation, interest, and awareness of the events and ideals behind the struggle for American independence. Of special interest is exploration and understanding the Revolutionary Era in upstate New York. The Certificate in Revolutionary Era Studies is open to any student interested in the history of the American Revolution. The certificate program integrates multidisciplinary study of early American history with service learning and public history opportunities thorough a variety of coursework and a required internship relevant to the study of the American Revolution. In order to achieve the certificate and do the required internship, a minimum cumulative GPA of 3.0 must be maintained in courses for certificate credit. Students must also complete the requirements of their major field.

Students pursuing the certificate should consult Dr. Mahar each semester to assure proper course selection and develop their internship sites. The HIST courses offered through the Certificate in Revolutionary Era Studies also satisfy requirements for the History major and minor as well as the American Studies major.

Certificate students are also eligible to participate in the College of William & Mary's Williamsburg Collegiate Program in Early American History, Material Culture, and Museum Studies. Please meet with Dr. Mahar to learn more about this semester long program. Students opting to study at the College of William & Mary may substitute up to 3 William & Mary courses toward the Certificate requirements.

Requirements for the Revolutionary Era Studies Certificate (18.000 credits):

HIST 312 - American Revolution, 1763-1815 3 cr.

Required internship or community engaged research project coordinated and supervised by the director of the McCormick Center for the Study of the American Revolution 3 cr.

- HIST 480 Internship in History
- AMST 480 Internship in American Studies
- ATDV 480 School of Liberal Arts Internship
- COMD 300 Community Development Practicum

Elective Area A , History Coursework (Select 1) 3 cr.

- HIST 241 Latin America: The Colonial Period
- HIST 264 U.S. Military History
- HIST 271 The Westward Movement, 1750-1890
- HIST 311 American Colonies, 1588-1763
- HIST 313 Antebellum America, 1815-1854
- HIST 370 Africa I: Genesis of Modern Africa
- HIST 396 England from 1485-1815
- HIST 401 Colloquium in History (when appropriate)
- HIST 411 Slavery in Historical Perspective
- HIST 415 French Revolution and Napoleon

HIST 465 The Spanish Borderlands
 HIST/AMST 485 Topics in Revolutionary History
 HIST 499 History Capstone (when appropriate)

Elective Area B 3 cr.
 ENGL 310 English Renaissance Literature
 ENGL 315 Literature of the Enlightenment
 ENGL 345 Early American Literature: Encounters, Enlightenment and Election (1500-1820)
 POSC 329 Special Studies in American Politics (when appropriate)
 POSC 339 Special Studies in Political Theory (when appropriate)
 REL 300 Topics in Religious Studies (when appropriate)
 RELG 305 Religion in America
 RELG 370 Religion, Morality and Politics

Elective Area C (Select 2) 6 cr.
 BLAW 200 Legal Environment of Business
 COMD 200 Higher Ed Partnerships for Community Development
 COMD 210 Community Research and Consulting
 CSIS 010 Intro to Computer Applications
 CSIS 110 Introduction to Computer Science
 CSIS 200 Topics in Computer Science (when appropriate and including GIS introduction and web design introduction)
 ENVA 440 Environmental Interpretation
 ENVA 460 GIS : Environmental Applications
 HIST/AMST 475 Public History
 MGMT 113 Business Communication
 MGMT 211 Management
 MRKT 212 Marketing

Certificate in Risk Management

John C. O'Neill, Ph.D., Director

The Certificate in Risk Management is designed to give students additional practical knowledge in the area of modern financial techniques that actuaries will find useful during their career. The courses contained will provide additional background for topics covered in several of the ensuing actuarial exams encountered during their career. Students who complete this certificate should have the ability to pass both Exam 1/P and Exam 2/FM with a modicum of extra preparation.

A student who chooses to attain the certificate in risk management will develop (1) a strong mathematical background stemmed in current treatment of classical mathematics, (2) a firm understanding of applied mathematics via statistical analysis, (3) a practical sense of how these mathematics are used in business to solve problems, (4) a fundamental knowledge of economic theory and (5) an understanding of finance theory and the role of finance within the firm; and will understand how risks are identified, explored and ultimately managed through the use of modern financial instruments.

Requirements for the Risk Management Certificate (54.000 credits):

CSIS 110 - Intro to Computer Science	3 cr.
ECON 101 - Principles of Economics, Micro	3 cr.
ECON 102 - Principles of Economics, Macro	3 cr.
ECON 430 - Econometrics	3 cr.
FINC 301 - Managerial Finance I	3 cr.
FINC 315 - Advanced Investments: Theory & Practice	3 cr.
FINC 340 - Insurance and Risk Management	3 cr.
FINC 421 - Business Financial Forecasting	3 cr.
FINC 432 - Portfolio Management	3 cr.
MATH 110 - Calculus I	3 cr.
MATH 120 - Calculus II	4 cr.
MATH 210 - Calculus III	4 cr.
MATH 371 - Probability for Statistics	3 cr.
MATH 470 - Mathematical Statistics	3 cr.

QBUS 480 - Mathematics of Finance		3 cr.
ACCT 200 - Financial Accounting	OR	
ACCT 205 - Managerial Accounting		3 cr.
MATH 230 - Linear Algebra	OR	
MATH 320 - Mathematical Analysis		3 cr.
A minimum grade of B- is required in order to count for credit towards the certificate.		

Siena Experience

SASE—010. Exploring Careers 1 credit

This course is designed to produce the below specific learning outcomes related to students career development. Students will increase their knowledge of careers in the arts, sciences, and business through career exploration assignments using the following skills: written and oral communication, analysis, critical and creative thinking, research, problem solving and teamwork. In addition, students will be required to demonstrate presentation skills by completing a career research project. Students will assess their career interests, skills and values, extensively explore possible career options and produce a detailed career plan, necessary career searching documents including a resume and cover letter, and learn to translate their personal competencies to career competencies for both professional employment and/or post-graduate study. (ATTR: BUS)

Student Designed Interdisciplinary Major

Program Director: Dr. Lois Daly
 Interdisciplinary Major Committee: Ms. Jennifer Fairall, Prof. Deb Kelly,
 Dr. Tom Swan, Dr. Scott Vandenberg

The Student Designed Interdisciplinary Major (SDIM) is a rigorous program for highly motivated students who have a clear plan, the creativity, and the determination to chart their own course of study. It is designed for students who have an interest other than the ones covered by traditional majors. SDIM can be a primary major or a second major.

Working closely with faculty, students will design a major that includes courses from at least 3 different departments, with no more than 15 credits from a single department, and which has no more than 12 credits of independent studies. The major is a minimum of 39 credits and includes a required Research Colloquium and Capstone (6 credits). Students in this major will earn a B.A. in Interdisciplinary Studies with a concentration noted on the transcript.

Interested students must apply to the Interdisciplinary Major Committee after earning 24 credits at Siena and achieving Siena GPA of 3.3 or better. Transfer students may be admitted to the program at the discretion of the Committee. Application includes a one page rationale for the plan of study, a list of possible courses (minimum 39 credits including the Research Colloquium and Capstone), letter of recommendation from a fulltime/continuing faculty member who will serve as the student’s advisor, additional faculty for the mentoring group, 4-6 specific learning outcomes grounded in the college-wide learning outcomes, and a resume.

The Interdisciplinary Major Committee will review each proposal. It may reject, approve, or approve with qualifications. Students will be encouraged to submit their proposals at the earliest date possible. Once the course of study is established by the Committee, changes to the plan can only be made with the approval of the faculty advisor in consultation with the Interdisciplinary Major Committee.

Once the project is accepted, each student will work with an advisor and at least two additional faculty members within a Mentoring Group. The advisor and student will work together to set up this group which is comprised of appropriate faculty members from various departments that correspond to the subject to be studied. Students must maintain a GPA of 3.3 or better to remain in this major. A 3 credit hour Research Colloquium is preparation for the 3 credit hour Capstone experience which includes a thesis project. The thesis is written under the direction of the faculty advisor. These two courses (SDIM350 and SDIM400) are 6 of the credits required for the major. Students will offer a thesis “Defense” which will be open to the public.

Requirements for the Major, B.A. in Interdisciplinary Studies with concentration noted on transcript (39.000 credits):

Eleven courses from at least 3 different departments, with no more 15 credits from a single department or more than 12 credits of independent studies. 33 cr.

SDIM 350 Research Colloquium 3 cr.

SDIM 400 Capstone/Thesis 3 cr.

Description of Courses

SDIM—305. Internship in Interdisciplinary Studies 1-3 credits
Interns work in locations that are related to the content of the area of study. This will vary greatly in accordance with the content of the student designed program. They may work in historical societies, museums, resource centers, The NY State House, service sites, etc. This is a pass fail course. Prerequisite: Permission of the Program Director is required. (ATTR: ARTS)

SDIM—350. Research Colloquium 1-3 credits
The Research Colloquium is designed to prepare students to write a Thesis. It provides a forum for students to learn advanced research skills, to discuss ideas about a Research Thesis/Project as they evolve, and to discuss the process of planning and preparing that thesis/project. Students will use class time to try out their ideas and to receive constructive criticism; to conduct appropriate literature searches in the discipline(s) in which their thesis falls; and, at the end of the semester, to present final proposals for the thesis/project. In addition, by the end of the course, the students will have a clear and doable topic in hand. No final exam. Offered on a pass/fail basis. Prerequisite: Permission of the Program Director is required. (ATTR: ARTS)

SDIM—400. Interdisciplinary Major Capstone Thesis 1-3 credits
Study or research on an advanced topic of the student's choice, supervised by a faculty mentor in consultation with the student's SDIM mentoring group. No final exam. Prerequisite: SDIM-350 and permission of the SDIM Program Director is required. (ATTR: ARTS)

SDIM—499. Independent Study 1-3 credits
Advanced individual study under the direction of a faculty member of a topic chosen by the student based upon his/her particular interest and background. It will involve private consultation with the advisor, independent research, and the writing of a research paper. Prerequisite: Approval of an instructor and the Program Director is required. (ATTR: ARTS)

Women's, Gender, and Sexuality Studies Minor

Dr. Laurie Naranch, Director

Women's, Gender, and Sexuality Studies is an interdisciplinary field encompassing scholarship about women and gender. The Women's, Gender, and Sexuality Studies minor at Siena introduces students to the analysis of gender roles in a variety of cultures, fosters an appreciation of diverse women's contributions to society and the arts, and trains students in the theories and research methodologies of women's, gender, and sexuality studies. This minor offers students a means for understanding social, intellectual, and political forces that mold both men's and women's lives, and aids students in challenging sexism and other sorts of oppressions.

Requirements for the Minor, Women's, Gender and Sexuality Studies (18.000 credits):

WGSS 400 - Women's, Gender, and Sexuality Studies Seminar 3 cr.
15 credits in Women's, Gender and Sexuality Studies 15 cr.

Because of the interdisciplinary nature of the program, many Women's Studies courses are cross-listed in other departments of the College. The course descriptions, including the years when they are offered and the prerequisites, can be found in the appropriate departmental section of the catalog. It is anticipated that students pursuing a Minor in Women's, Gender, and Sexuality Studies and students who take only selected courses without pursuing the minor will choose the WSTU number. Courses that are counted toward a student's major may not also be counted toward the Women's, Gender, and Sexuality Studies minor. The content and requirements of cross-listed courses are not affected by which course number the student selects for registration.

Description of Courses

WGSS—300. Topics in Women's, Gender, and Sexuality Studies 3 credits

This course explores special topics in women's, gender, and sexuality studies that are not part of the regular course offerings. This course may be taken more than once with a different content. (ATTR: ARTS, WSTU)

WGSS—400. Women's, Gender, and Sexuality Studies Seminar 3 credits

This seminar provides advanced study in the field of women's, gender, and sexuality studies. This course emphasizes critical thinking as well as professional skill building in terms of leadership skills, advocacy knowledge, group learning, and engaged scholarship. (ATTR: ARTS)

WGSS—499. Women's, Gender, and Sexuality Independent Study 1-3 credits

Students may pursue a topic of their choosing in the field of women's, gender, and sexuality studies. As an independent study, students work with a faculty member or members. This course may be repeated with a different topic area. The regular Independent Study approval process should be followed. (ATTR: ARTS)

School of Liberal Arts

Dr. Lara Whelan, Dean

Dr. Max Levine, Associate Dean

Ms. Diana King '16, B.S., Assistant Dean for Administration

Ms. Donna Tytko, M.S., Assistant Dean for Student Services

School of Liberal Arts Courses

ATDV—105. Topics in Film 3 credits

A one-semester, three credit course in film studies taught periodically by faculty from the Schools of Liberal Arts, Science, or Business. Each time it is offered the course will focus on a single theme — for example, War in American Films, Horror from the 50's and 60's, The Western, and Film Noir—or on directors like John Ford, Woody Allen, Ingmar Bergman, and Akira Kurasowa. Combines theoretical, literary and historical studies with critical viewings of films. May be taken twice for credit under different themes. No prerequisites. (ATTR: ARTS)

ATDV—110. Statistics for Social Science 3 credits

An introduction to statistical procedures and analysis, including descriptive and inferential statistics. Descriptive statistics include such areas as frequency distributions, measures of central tendency, and variance. Inferential statistics include tests of hypotheses for means, analysis of variance, and linear correlation. Not open to students who have taken QBUS—200 Business Statistics I. (ATTR: CDQ, ARTS, INRM)

ATDV—200. Interdisciplinary Studies I 3 credits

Interdisciplinary Studies I examines issues facing human beings in today's natural world from the points of view of a variety of academic disciplines. Generally, different topics are covered each time the course is offered. Open to sophomore-level students and above. (ATTR: ARTS)

ATDV—205. Interdisciplinary Studies II 3 credits

Interdisciplinary Studies II examines issues facing human beings in today's social world from the points of view of a variety of academic disciplines. Generally, different topics are covered each time the course is offered. Open to sophomore-level students and above. (ATTR: ARTS)

ATDV—210. Perspectives on Women's and Multicultural Studies 3 credits

An interdisciplinary course designed to identify racist, heterosexist, ageist, anti-semitic, ableist, etc. assumptions in conventional scholarship; to develop an interdisciplinary critique of knowledge; to describe the development of stereotypes about disenfranchised groups throughout western culture; to recognize the contributions of women and members of other disenfranchised groups in various fields of human endeavor; to develop a holistic appreciation of the diversity of society. (Same as WSTU—100) (ATTR: ARTS)

ATDV—250. Topics in the Humanities 1-3 credits

This course deals with topics and themes which cross normal disciplinary boundaries. The particular content will be indicated by subtitle. The course may be taken more than once with different content. Prerequisites will be set by the faculty teaching a specific course under this rubric. (ATTR: ARTS)

ATDV—480. Internship in School of Liberal Arts 1 - 6 credits (6 credits maximum.)

Internship opportunities not covered by departmental areas. Permission of Dean required. (ATTR: ARTS)

ATDV—499. Independent Study in the School of Liberal Arts 1 - 3 credits

This course provides an opportunity for seniors with a 3.0 or above to pursue independent study that is interdisciplinary or that does not fit within a single department's guidelines. The permission of a faculty member and the Dean is required. (ATTR: ARTS)

ATDV—779. Topics in Intercultural Understanding, Arts 4 credit

This course, offered in a foreign country, is an intensive study of specific topics associated with international internships. The nature of the student's research will determine which division will award credit. The course will typically involve a high degree of independent research, oral presentations by the students, and a well-documented writing assignment. Besides the specific research coordinated with an internship, the course will emphasize issues in intercultural communication. A student will earn four credits for this course. (ATTR: ARTS)

ATDV—781. International Internship, Arts 3 - 8 credits

A student may earn 3-8 credits by serving as an intern in a foreign country. Placements are available for students from each school. The nature of the internship will determine which division will allocate credit. Typical opportunities include work in parliaments, law offices, theatres, museums, non-profit organizations, banking, hospitals and businesses. Students will work from 10 to 32 hrs. a week, depending on the program selected. The internship will involve a sizeable research project linked to the work undertaken. Prerequisites: students must be at least juniors, demonstrate self-motivation, good communication skills and trustworthiness. The GPA requirement is 2.75. Students who wish this internship to be counted as an equivalent to an internship in a department, must receive advance permission from the head of that department. (ATTR: ARTS)

ATDV—787. Washington Semester Elective 3 credits

Course to be determined by the student and Washington Semester Program Director. Students can select a course in subject areas such as History, Literature, Sociology, Computer Science, Mathematics, Biology, etc. (ATTR: ARTS)

ATDV—788. Washington Semester Research 4 credits

Consists of the research component of the Washington Semester Program. The student will pursue an independent research project under the direction of a faculty person in the academic track (American Government, Economic Policy, Justice, Foreign Policy or Peace and Conflict Resolution) that the student has selected for study in the Washington Semester Program. (See ECON—790-793, PCST—789, POSC—790-797.) See the Washington Semester section of the catalog for a description of this program. (ATTR: ARTS)

ATDV—789. Internship in Washington Semester 4 credits

This is the internship component of the Washington Semester Program. This provides the student with first-hand experience in an organization directly involved with the academic track being followed. The internship will be available with Congressional Offices and Committees, Executive branch agencies, interest groups, research think tanks and the media. Students work two full days each week of the semester. Student evaluations will be based upon criteria established by academic and office supervisors. See the Washington Semester section of the catalog for a description of this program. (ATTR: ARTS)

American Studies Program

Director: Dr. Karen W. Mahar

The American Studies Program at Siena College provides an interdisciplinary approach to the study of the American experience. Students may select from courses in areas such as American history, literature, art history, theatre, music, sociology, philosophy, economics, film, religion, and political science to fulfill requirements in the major and minor. This interdisciplinary approach is introduced in AMST 250: The American Dream and capped by AMST—451: American Studies Capstone. American Studies majors are eligible to pursue the initial teaching certificate in Social Studies, but they may not be able to complete their undergraduate work in eight semesters.

Requirements for the Major, B.A. in American Studies (39.000 credits):

HIST 104	America in the World, 1596-1877	3 cr.
HIST 105	America in the World, 1877-2001	3 cr.
AMST 250	The American Dream	3 cr.
AMST 451	American Studies Capstone	3 cr.
6 credit hours in	American Literature	6 cr.

The remaining 21 credits in American Studies must be chosen from Areas A, B and C, with no less than 6 and no more than 12 credit hours in each area. 21 cr.

The Areas are:

- Area A Courses with AMSA attribute
- Area B Courses with AMSB attribute
- Area C Courses with AMSC attribute

Auxiliary (6.000 credits)

Two semesters in the same foreign language. 6 cr.
These languages include: French, Spanish, German, Latin, Russian, Greek, Italian, or Arabic.

American Sign Language does **not** fulfill this requirement.

Requirements for the Minor, American Studies (18.000 credits):

AMST 250	The American Dream	3 cr.
HIST 104	America in the World, 1596-1877	3 cr.
HIST 105	America in the World, 1877-2001	3 cr.

One course from Area A (AMSA attribute)	3 cr.
Two courses from Area B and/or Area C (AMSB or AMSC attribute)	6 cr.

History majors who minor in American Studies are required to take 15 credits from Area B and/or C and AMST 250.

American Studies with Certification in Social Studies Education (33.00 credits)

HIST 104	America in the World, 1596-1877	3 cr.
HIST 204	American History II	3 cr.
American Literature (ASTL)		6 cr.
AMST 250	The American Dream	3 cr.
AMST 451	American Studies Capstone	3 cr.
HIST 266	New York State History	3 cr.

American Studies electives	12 cr.
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Auxiliary (27.00 credits)

Two semesters in the same foreign language	6 cr.
These languages include: French, Spanish, German, Latin, Russian, Greek, Italian, or Arabic. American Sign Language does not fulfill this requirement.	

History, European (HEUR)	6 cr.
History, Non-Western (HNW)	6 cr.
Sociology	3 cr.
Economics	3 cr.
Political Science	3 cr.

In addition to these requirements, students must complete the Education Certificate. Please see the Education Department for specific requirements.

Courses other than those listed below may be included in the student's program subject to the approval of the Director.

Description of Courses

AMST—250. The American Dream 3 credits

This course introduces students to the content and methodologies of American Studies through a consideration of the American Dream. Its focus is the complex relationship between people, land, and built environments, from the Puritan village to the California dream. Same as AMST—450. (ATTR: ARTS, AMST, CFH)

AMST—401. Colloquium in American Studies 3 credits

This course is designed to explore interdisciplinary topics concerning American culture, history, and life that are not treated in traditional course offerings. The area or theme will be studied in depth and there will be an emphasis on discussion. The subject will be announced before the semester in which the colloquium is to be given. The colloquium topic and instructor must be approved by the Director of the American Studies Program. May be taken twice with different topics. (ATTR: ARTS, AMST)

AMST—451. American Studies Capstone 3 credits

This is a directed research and writing course in which American Studies majors use their interdisciplinary background and their chosen themes to create an extensive, original research project. AMST—451 is typically taken during the first semester of the senior year. Permission of the Instructor is required. (ATTR: ARTS)

AMST—475. Public History 3 credits

This course considers the practice of history outside of the formal classroom. Areas of study may include, but are not limited to, museums, libraries, archives, state and national parks, historical societies, theme parks, publishing, filmmaking, archaeology, and historic preservation. Prerequisites: Any HIST 100-level course. (Same as HIST-475) (ATTR: ARTS, ACOM, HMAM, HAM, REC)

AMST—480. Internship in American Studies 3 credits

Interns work in historical societies, museums, resource centers, etc. (The evaluation of such credit is made by the staff of the participating institution and the Director.) Open to second semester juniors and seniors who have completed a minimum of 12 credit hours in history, including U.S. history, and who present at least a 3.0 GPA in their major and 2.9 overall. Permission of the Director of the American Studies Program is required. Prerequisites: Any HIST 100-level course. (Cross-listed as HIST—480)

AMST—485 Topics in Revolutionary Era History 3 credits

A study of specialized topics encompassing the Revolutionary Era from 1754 to 1815 that include: Economics of the Revolution; Education in the Colonies; Blacks in the Revolution; Free and Slave; Local History-Albany, Schenectady, Troy in the Revolution; Weapons and Tactics in the World and Revolution, 1785-1815; Colonial Women; Diplomacy in the Revolutionary Era. The specific topic is announced in the schedule of course offerings. Students may repeat the course for credit provided the selected subject matter has not been taken previously for credit. Prerequisite: HIST—104. (Cross-listed as HIST—485) (ATTR: ARTS, HAM, AMSA, HMAM, REA)

This is a partial listing of courses that satisfy American Studies Areas A, B and C. New courses may not appear here. Please contact the Program Director about courses that you think may qualify for American Studies. Course descriptions for the following areas may be found under the appropriate department.

Area A

AMST—485 Topics in Revolutionary Era History
HIST—264 U.S. Military History
HIST—266 New York State History
HIST—271 The Westward Movement, 1750-1890
HIST—273 United States Women's History
HIST—275 African-American History
HIST—310 Colonial and Revolutionary U.S., 1600-1789
HIST—311 American Colonies, 1558-1763
HIST—312 American Revolution, 1763-1815
HIST—313 Antebellum America, 1815-1854
HIST—315 The Civil War and Reconstruction, 1850-1877
HIST—320 Industrial America 1877-1920
HIST—321 New Deals: US 1920-1945
HIST—322 American Century: US Since 1945
HIST—401 Colloquium in History (when topic is appropriate)
HIST—457 American Immigration in Historical Perspective
HIST—465 Spanish Borderlands
HIST—390-490 Honors Seminar (when topic is appropriate)

Area B

ECON—230 U.S. Economic History
POSC—100 Contemporary U.S. Politics
POSC—205 State and Local Government
POSC—313 American Political Parties
POSC—315 U.S. Congress
POSC—320 The American Presidency
POSC—329 Special Studies in American Politics
POSC—351 U.S. Foreign Policy
POSC—370-372 Civil Liberties I & II
SOC1—120 Global Social Problems
SOC1—130 The Family
SOC1—210 Race and Ethnic Relations

Area C

ATDV—105 Topics in Film (when topic is appropriate)
CREA—255 American Art

CREA—256 American Music
 CREA—258 American Theatre
 EDUC—220 Democracy and Pluralism in American Education
 ENGL—213 Survey of American Literature
 ENGL—345 Early American Literature (1500-1820)
 ENGL—350 American Renaissance Literature (1820-1865)
 ENGL—355 Realistic Movements in American Literature (1865-1915)
 ENGL—360 American Literature of the Jazz Age
 ENGL—365 Cold World Literature and Culture
 ENGL—272 The Literature of the War in Vietnam
 ENGL—262 African American Literature
 ENGL—265 Native American Literature
 ENGL—268 Asian American Literature
 ENGL—271 Latino/a Literature
 PHIL—420 Classic American Philosophy
 RELG—305 Religion in America
 RELG—310 The American Evangelical Tradition
 RELG—315 American Catholicism

Creative Arts Department

Chair: Ms. Denise Massman, Assoc. Professor
 Prof.: Mr. Mahmood Karimi-Hakak (sabb. Sp '18)
 Assoc. Prof.: Mr. Scott Foster, Dr. Paul Konye, Mr. Timothy Reno (sabb. F '17),
 Rebecca E. Taylor, Esq. (sabb. F '17)
 Visiting Asst. Prof.: Ms. Germaine Gatewood

The goal of the Creative Arts Department is to engage students with works of the creative imagination. Courses are designed to achieve this goal through three approaches: 1) by developing within students an aesthetic appreciation of the arts of the world in which they live; 2) by enabling students to understand the arts as they reflect the cultural spirit of various epochs in human experience; and 3) by encouraging the unlocking and development of students' own creative potential.

In its major, the Department seeks to enable students to move freely among artistic disciplines. Through a curriculum that encourages students to create and respond to various art forms, students will be prepared for further academic or professional studies in the arts and related fields or to pursue a career as an artist (where apprenticeship and training are available in the field). Faculty, both individually and as a whole, actively advise and help shape students' development.

The following are potential concentrations a major or minor could follow with creative arts faculty advisement: art history, arts administration, arts therapy, liturgical arts, digital art, digital and graphic design, interior design, painting and drawing, acting, directing, musical theater, theater design and technology, theater management and producing, conducting, vocal performance, music studies, vocal performance.

Requirements for the Major, B.A. in Creative Arts (36.000 credits):

CREA 111	Proseminar in Creative Arts	3 cr.
	History of Art, Music or Theatre (HAR)	6 cr.
CREA 490	Seminar in Creative Arts	3 cr.
	CREA Electives from 300 level or higher	15 cr.
	CREA Electives at any level	9 cr.

**CREA 101-104 may be taken as a CDA requirement but none may be applied to the major.

Requirements for the Minor, Creative Arts (18.000 credits):

CREA 101	Intro to the Creative Arts	OR	
CREA 111	Proseminar in Creative Arts		3 cr.
	CREA Electives from 300 level or higher		9 cr.
	CREA Electives at any level		6 cr.

The following are career tracks a major or minor could follow with creative arts faculty advisement:

Intermedia Arts; Art History; Arts Administration; Arts Therapy; Conducting; Digital Art; Directing; Fashion Design; Film Studies; Graphic Design; Interior Design; Music Composition; Music History, Literature, Musicology; Performance; Theater Design and Technology; Theater Management/Producing; Vocal Performance; Theater Certificate Program.

Description of Courses

CREA—101. Introduction to Creative Arts 3 credits

This course will introduce students to the vocabulary, interpretive strategies and collaborative processes essential to developing their own ideas of interrelationships among various disciplines in the creative arts. Attendance at arts events outside of class is required. (ATTR: ARTS, CAA, CDA)

CREA—102. Introduction to the Visual Arts 3 credits

An introduction to a wide variety of forms and themes of the visual arts of the past and present. Students will learn the vocabulary necessary for analyzing and critically evaluating art. Attendance at a museum or gallery show is required. (ATTR: ARTS, CAA, CDA)

CREA—103. Introduction to Music 3 credits

An introduction to the major forms, techniques, and composers in all epochs of music history to develop a better understanding and enjoyment of the art of music. Attendance at designated music performances will be required. (ATTR: ARTS, CAA, CDA)

CREA—104. Introduction to Theatre 3 credits

An introductory exploration of the various elements involved in creating and responding to the theatre. This course will expose the student to the creative aspects of playwriting, acting, directing and design and will develop the critical skills necessary to the informed audience member. Through discussion and attendance at both professional and academic productions, the student will be exposed to the complexities of the art form and entertainment industry. This course is designed for students with no theatre experience as well as those already acquainted with the stage. A field trip to a professional production is required. Lab Fee. (ATTR: ARTS, CAA, CDA)

CREA—111. Proseminar in Creative Arts 3 credits

This course will introduce students to the creative arts as a whole through the interaction between experiments in creative action and critical analysis. Fundamental questions about the nature of art and creativity, the art worlds and ethical dimensions, and the relation between the arts and society will be initiated. For each theoretical component of the course, there is a complementary creative exercise. Studio fee. (ATTR: ARTS, EXCA)

CREA—112. Basic Design I 3 credits

A foundation studio course exploring two-dimensional design problems through a controlled sequence of exercises in drawing, abstract black and white composition, and basic color theory and its application to design. Emphasis is placed upon developing a student's personal appreciation and creative expression rather than professional skill. Studio fee. (ATTR: ARTS, CAA, EXCA, MUMD, NOEX, CDA)

CREA—120. Chorus 3 credits

The Siena College Chorus explores and performs choral music of all times and genres. All are welcome; there are no prerequisites. Chorus is a three-credit, full year course. A simple vocal placement by the instructor is required. (ATTR: ARTS)

CREA—135. Voice and Movement 3 credits

This is a performance course in physical and vocal technique for the stage and other performance media. General physical limbering and awareness and the development of a free and natural speaking voice pave the way for extensive exercises for the breath, resonation and vocal articulation as well as methodologies in movement, which include improvisation, group performances and individual movement techniques designed to increase the body's expressiveness. Presentations of scripted material, extracts from dramatic literature or poetry form the periodic "onstage" portion of this practical performance course. A field trip to a professional production is required. Lab fee. (ATTR: ARTS, CAA, CDA, EXCA, NOEX)

CREA—145. Introduction to Theatre Design & Technology 3 credits

An exploration of the theory and technique of current theatre technology, including scenery construction, scene painting, properties, lighting, sound, and costuming. Through discussions and laboratory experience in two campus productions, students will learn the practical application of theatre technology to the aesthetics of design. This course is designed for students with no theatre experience as well as those already acquainted with the stage. A field trip to a professional production is required. Lab Fee. (ATTR: ARTS, CAA, NOEX)

CREA—165. Music Theory I Elementary Harmony 3 credits

Music Theory I is an introductory course in elementary harmony. Its main objective is to engage students in, and guide them through, the creative processes involved in music making and analysis through music notation, melodic writing, and elementary harmony. The stated objectives are achieved by engaging students in frequent hands-on in-class exercises and a final project. (ATTR: ARTS, EXCA)

CREA —172. Jazz Dance 1 – 3 credits

The course stresses rhythmical and expressive movement within the jazz idiom. While the course focuses primarily on Jazz Dance technique, some ballet and modern technique will be included in the warm-up. The class will consist of warm-up, isolations, strengthening and stretching exercises and patterns through space. Work will be done in the center as well as across the floor. There are no prerequisites. Creative Arts Fee. (ATTR: ARTS, EXCA, NOEX)

CREA —173. Modern Dance Level I 3 credits

The course consists of studio work in Level I Modern Dance technique, principles and style. The student is expected to master the beginner level elements of alignment, placement, rhythm and execution of movements that are unique to the modern dance idiom. Written requirements include: research paper on specific modern dance choreographers and a critique of an assigned professional dance concert. Creative Arts Fee. (ATTR: ARTS, EXCA, NOEX)

CREA—180. Experimental Video 3 credits

In this studio art course, students will make several short videos and present them to the class for discussion, as well as view and read about many experimental films and videos by artists of the 20th and 21st centuries. No experience in art, video, or sound production is necessary. The course goal is to become familiar with the history of this new art medium, and to gain experience in making, critiquing, and exhibiting one's own original videos. No prerequisites. (ATTR: ARTS, FILM, MUMD, NOEX)

CREA—200. Drawing I 3 credits

A studio course in which the fundamentals of drawing are taught. Students will use a variety of media and techniques while studying still life, landscape, and the human figure. Students will develop observational acumen and technical facility with drawing media. Emphasis will be placed on the creative application of the media and techniques taught. Studio fee. (ATTR: ARTS, CAA, CDA, EXCA,)

CREA—204. Digital Photography 3 credits

A beginning studio course exploring traditional photographic concerns as expressed through the digital format. Basic technical issues of camera operation, image processing via the computer, and print output are explored. Aesthetic issue regarding composition, light, subject matter, and photographic vision are stressed. Studio fee. (ATTR: ARTS, CDA, EXCA, FILM, MUMD, NOEX)

CREA—210. Orchestra 1-3 credits

Orchestra is a performance-based musical ensemble course that explores expressive, technical and stylistic approaches to interpreting standard and contemporary orchestral repertory, including different types and genres of music from a global perspective. The number of credits awarded will be determined by the instructor on the basis of workload and the level of responsibility. An assessment of competence, progress and improvement in orchestral work and attendance will determine the final grade. CREA—210 may be taken more than once to a maximum of six credits but may not exceed three credits in any one semester. Prerequisite: Audition and permission of instructor. (ATTR: ARTS, EXCA, NOEX)

CREA—213. Basics of Singing 3 credits

A performance course in the foundations of healthy singing technique, including posture, breath, sound production, resonance, registration, articulation, and diction. In addition to readings, exercises, and solo song literature, the student will develop musicianship skills such as listening, music sight-reading, presentation, and interpretation. A field trip to a professional production is required. (ATTR: ARTS, CDA, EXCA)

CREA—219. Acting I 3 credits

Students are acquainted with the process of actor training and character development through workshop, discussion, and attendance at professional and academic productions. Laboratory sessions are devoted to the preparation of scenes, exploration of the actor's body and voice, and an examination of the student's ability to feel, to communicate, and to imagine. This course is designed for students with no previous acting experience or

those with some experience, but no training. A field trip to a professional production is required. Lab Fee. (ATTR: ARTS, CAA, CDA, EXCA, NOEX)

CREA—221. Acting for the Camera 3 credits

Students are acquainted with the process of acting for media that utilize the camera as a principal delivery system through workshop, discussion, observations and viewing and analyzing professional film and broadcast work. Laboratory sessions are devoted to exercises, the preparation of scenes, scenarios and journalistic reports and the exploration of technical skills. This course is designed for students with no previous camera acting or broadcast journalism experience or those with some experience but no training. Lab fee. (ATTR: ARTS, NOEX)

CREA—231. Art to the 15th Century 3 credits

From the earliest rock art of prehistory to the great stone cathedrals of the Middle Ages, this course examines the art of the world from the point of view of the cultures that produced them. Travelling through ancient spaces as well as time, students survey monuments like Stonehenge, the pyramids of Egypt, the complexes of Meso-America, the grave goods of ancient China, the Bronzes of ancient Africa, the temples, the churches and the shrines of the many religions that laid the foundations of our own world. (ATTR: ARTS, CAA, CDA, GLST, ILST, HAR, HGC, MRST)

CREA—232. Art from the 15th Century 3 credits

This course surveys the canon of art history from the fifteenth to the twentieth centuries – a group of artworks that are widely recognized as of enduring importance in human history. Some, like Michelangelo's Sistine Ceiling, are outstanding in their own right; others are examples of significant types, e.g. landscape paintings. All are studied with respect to the culture in which they were produced, and upon which they exerted influences. Included will be Leonardo da Vinci, Rembrandt, the Impressionists, architecture such as Versailles and the Taj Mahal, as well as the major developments of the modern world. (ATTR: ARTS, CAA, CDA, HAR, HGC, MRST, GLST, ILST)

CREA—242. Music from the 17th Century 3 credits

This course is a study of the major compositions, composers, and the stylistic characteristics usually associated with each of the historical music periods starting from the Baroque. The course is also designed to broaden students' artistic horizons and to unlock their creative potential as they become familiar with current trends in the arts. (ATTR: ARTS, CAH, HAR, HGC)

CREA—251. World Theatre History 3 credits

A survey of world theatre, from its origins to the 21st Century. This course focuses on diverse world views and functions of performance as seen in the theatre of various cultures and historical periods. Areas of study include the occasions, social contexts, styles, and locations of theatrical performance; methods of production; and critical perspectives. The course is designed for students with no theatre experience as well as those already acquainted with the stage. A field trip to a professional production is required. Lab Fee. (ATTR: ARTS, CFD, HAR, HGC.)

CREA—254. Opera I 3 credits

A survey of operatic styles and major composers principally from early to modern opera geared to those students who are just beginning, or who have not yet begun, to take an interest in opera as well as for those who desire to know more about an art form they already enjoy. There is a required field trip. (ATTR: ARTS, HAR, HGC)

CREA—255. American Art 3 credits

A study of art in the United States from the seventeenth to the twentieth century considering both the European influence and American styles. Small group field trips to local/regional historic houses and museums are required. (ATTR: AMSC, ARTS, CAH, HAR, HGC)

CREA—256. American Music 3 credits

A survey of American music from the seventeenth century to the present. Attention will be given to the contributions of the early settlers, the influence of folk traditions, the contributions of ethnic and minority groups, and the major lines of development in symphonic music. (ATTR: ARTS, AMSC, HAR, HGC)

CREA—258. Diversity in American Theatre 3 credits

The course addresses issues of diversity in American society as they have been represented in the American theatre. Through class discussion, readings of play scripts and supplemental material, and attendance at both professional and academic productions, students will examine the various means through which American theatre addresses issues of race and ethnicity, gender, class, religion, and politics. This course is designed for

students with no theatre experience as well as those already acquainted with the stage. A field trip to a professional production is required. Lab Fee. (ATTR: AMSC,ARTS,CFD, HAR, HCG)

CREA—273. Modern Dance Level II 1 – 3 credits

The course consists of studio work in Level II modern dance technique, principles and style. The student is expected to master the elements of alignment, placement, rhythm and execution of movements that are unique to the modern dance idiom. Prerequisites: CREA 170 or permission of Instructor. Creative Arts Fee. (ATTR: ARTS, EXCA, NOEX)

CREA—275. Film Theory and Criticism 3 credits

This course provides a forum for observing, analyzing, discussing and writing about the aesthetics of film. This course also teaches the basics of film criticism and reveals how film criticism affects the making and re-making of film as genre. (ATTR: ARTS, BCST, FILM)

CREA—297. Special Topics in Creative Arts 0- 3 credits

Selected areas of study in visual art history, studio art, music or theatre. May be taken more than once with different content. A field trip to a professional music or theatre production, museum or visual art exhibition may be required. Consult the fall and spring schedules for specific content and length of class sessions. (ATTR: ARTS)

CREA—304. Digital Photography II 3 credits

An advanced studio course exploring traditional photographic concerns in the digital format. Advanced techniques of camera, Photoshop and lighting equipment will be addressed. Students will be exposed to work of past and contemporary artists from diverse backgrounds. A student must provide a DSLR camera. Prerequisite: CREA—204. Studio fee. (ATTR: ARTS, CFD, EXCA, MUMD)

CREA—309. New Art Forms 3 credits

In this studio art course, students will be introduced to new art forms such as assemblage sculpture, sound art, action art, experimental video, and installation art. In addition to studying the history and theory behind new art forms, students will produce original pieces in these new media and present them to the class for discussion. No experience in art or in any of the technical aspects of these art forms is necessary. The course goal is to increase awareness and understanding of contemporary art, and to expand one's sense of aesthetics. No set prerequisites; registration by permission of instructor. (ATTR: ARTS, MUMD, NOEX)

CREA—311. Contemporary Critique 3 credits

This course is open to all Creative Arts majors and minors. Students will do and present academic research and creative work in any medium for class critique and discussion with the goal of defining their creative process and focusing their media and concepts. Art history majors will present papers critiquing their peers' work for discussion and feedback. In addition, contemporary arts theory and practice will be studied, analyzed and applied to one's own work. The class will also visit local arts organizations and come to better understand one's role as an artist in any specific community, the global publishing and electronic community, and one's options for both professional and avocational work in the arts. (ATTR: ARTS)

CREA—312. Basic Design II 3 credits

A basic studio course exploring three-dimensional design problems through a controlled sequence of projects dealing with form in space. Emphasis is placed upon developing a student's personal appreciation and creative expression rather than professional skill. Prerequisite: CREA—112 or 231 or permission of the instructor. Studio fee. (ATTR: ARTS, EXCA, NOEX)

CREA—313. Drawing II 3 credits

An intermediate level studio course designed to expand the student's knowledge of drawing techniques and media and to increase the range of creative application. Students will study still life, landscape, and figure directly. Emphasis will be placed on the creative application of the media and techniques taught. Prerequisite: CREA—200 or permission of the instructor. Studio fee. (ATTR: ARTS, EXCA,)

CREA—314. Painting I 3 credits

A studio course in which the fundamentals of painting are taught. The language of color, use of the brush, and articulation of forms will be explored through the observational study of a variety of subjects. Students will develop a technical facility with painting media. Emphasis will be placed on the creative application of the media and techniques taught. Prerequisite: CREA—200, or permission of the instructor. Studio fee. (ATTR: ARTS, EXCA)

CREA—325. Graphic Design 3 credits

A beginning studio course exploring the graphics print media. Problems of composition, color coordination, and image construction are explored using a range of techniques. Prerequisite: CREA—102 or CREA—112 or CREA—200, or permission of the instructor. Studio fee. (ATTR: ARTS, EXCA, MUMD, NOEX)

CREA—327. Medieval Art 3 credits

This course offers an overview of the art of Europe from the beginnings of Christianity to the Renaissance, a span of over thirteen centuries of dynamic cultural change. In the predominantly illiterate Medieval cultures, visual art was used to establish and communicate the evolving religious and political values. Students will study the works of art and architecture for which the Middle Ages is justly renowned: illuminated manuscripts, sculpture, and architecture. Prerequisites: CREA—231 or permission of the instructor. (ATTR: ARTS, HAR, HGC, MRST)

CREA—328. Renaissance Art 3 credits

A survey of the arts of Italy and northern Europe in the fifteenth and sixteenth centuries, viewed in light of the humanism and naturalistic outlook of the period. Prerequisite: CREA—231 or 232. (ATTR: ARTS, HAR, HGC, MRST)

CREA—329. Modern Art 3 credits

A survey of major concepts in the visual arts from impressionism to the present. Prerequisite: CREA—232. (ATTR: ARTS, HAR, HGC)

CREA—330. Acting II 3 credits

A rigorous exploration of both the theory and practice of acting for the stage, focusing on textual analysis and its integration into the rehearsal process, improvisation and its contribution to role preparation, contemporary methods of actor training, audition techniques, and acting in nonlinear or non-traditional roles. Students will prepare scenes and audition monologues as an integral part of the course of instruction. This course is designed for students with prior on-stage experience and training in acting. A field trip to a professional production is required. Prerequisite: CREA—219. Lab Fee. (ATTR: ARTS, EXCA, NOEX)

CREA—335. Chamber Singers 0 - 3 credits

Through readings, vocal exercises, and the study of solo song literature, students will develop vocal techniques including breath control, sound production, resonance, articulation, and registration. Also included will be the art of song interpretation and presentation, and over-coming vocal performance anxiety. In addition to class time, students will schedule a weekly half-hour private coaching. A field trip to a professional production may be required. Details (including cost) will be provided at the beginning of term. Prerequisites: Permission of Instructor. This entails a formal audition to evaluate vocal ability and musical literacy. (ATTR: ARTS, EXCA)

CREA—345. Scenery Design 3 credits

A study of the aesthetics and mechanics of designing scenery for the stage. Students will utilize design, drafting and presentation skills developed in class to create scene renderings, elevations, models and working drawings based on the interpretation of a theatrical script. This course is designed for students with no theatre experience as well as those already acquainted with the stage. A field trip to a professional production is required. Prerequisite: CREA—112 or 145, or permission of instructor. Lab Fee. (ATTR: ARTS, CAA, EXCA, NOEX)

CREA—347. Lighting and Sound Design 3 credits

A study of the aesthetics and mechanics of designing lighting and sound for the stage. Students will utilize design, drafting and presentation skills developed in class to create lighting cues, lighting plots, electrician schedules, sound plots, sound cues and sound recordings based on the interpretation of a theatrical script. Students will have the opportunity to explore the principles of lighting in a lighting laboratory using current technology. Students will also use current sound technology to record, construct and manipulate sound effects. This course is designed for students with no theatre experience as well as those already acquainted with the stage. A field trip to a professional production is required. Prerequisite: CREA—112 or 145, or permission of instructor. Lab fee. (ATTR: ARTS, CAA, EXCA, NOEX)

CREA—348. Costume and Makeup Design 3 credits

A study of the aesthetics and mechanics of designing costumes and makeup for the stage. Students will utilize design and drafting skills developed in class to create costume renderings and patterns as well as makeup plots and palettes based on the interpretation of a theatrical text. This course is designed for students with no theatre

experience as well as those already acquainted with the stage. A field trip to a professional production is required. Prerequisite: CREA—112 or 145, or permission of instructor. Lab Fee. (ATTR: ARTS, CAA, EXCA, NOEX)

CREA—349. Directing 3 credits

An introductory exploration of both the theory and practice of directing for the stage. Students will direct contentless scenes, short plays and/or contextual scenes from full length works, collaborating with students in

CREA—355. Creative Process in Contemporary Music 3 credits

This course is a study of the most recent examples of contemporary music. We will experience the creative process in these compositions through listening and analysis, and we shall even do a little composing and performing of our own. These compositions often reflect other artistic trends and utilize scientific fields in the creative process, for example minimalism, postmodernism, mathematics, acoustics, etc. Reading or writing music is not required. Prerequisite: CREA—103 or 165 or 242 or 254 or 256. (ATTR: ARTS)

CREA—357. Music Ritual and Creative Arts in Non-Western Cultures 3 credits

This is a study of musics of the world. We will also examine the context in which the music may be heard, such as dance, theatre, or religious ceremonies. We will explore relationships between music and other art forms, such as calligraphy, painting, and architecture. In other words, we will study the people through their musical practices. Reading or writing music is not required for this class. Prerequisite: CREA—103 or 242 or 254 or 256 or 257. (ATTR: ARTS, HAR)

CREA—363. Image and Society 3 credits

This course provides a forum for observing, analyzing, discussing, and evaluating the effect of images on society. It offers training in visual literacy, the psychology of coding, perceiving and interpreting images. Prerequisite: CREA—232 or permission of the instructor. (ATTR: ARTS, BCST, FILM)

CREA—370. Improvisation in Dance 1 - 3 credits

This course explores the use of improvisation as a tool for the further development of the art of making dance. Students will explore the freedom of movement and with it, experimentation. The class will help the students gain an increased sensitivity to time, space, energy, motion, oneself and other people. Students will develop the skill to take an idea, concept or feeling and express it non-verbally. Students will learn to improvise with their bodies as an instrument, with abstract elements of dance and with the environment in which dance exists. Prerequisites: CREA 170, CREA 172 or permission of Instructor. Creative Arts Fee. (ATTR: ARTS, EXCA, NOEX)

CREA—397. Advanced Topics in Creative Arts II 0 - 3 credits

Selected areas of advanced study in visual art history, studio art, music, or theatre. May be taken more than once with different content. As with CREA—297 a field trip may be required. Consult the fall and spring schedules for specific content and length of class sessions. (ATTR: ARTS)

CREA—420. Painting II 3 credits

An intermediate studio course exploring further color, spatial, and perceptual complexities of painting. Students will develop their own creative voice and pictorial strategies. Emphasis will be placed on the creative application of the media and techniques taught. Prerequisite: CREA - 314 or permission of the instructor. Studio fee. (ATTR: ARTS, EXCA)

CREA—450. Acting Practicum 1-3 credits

This course awards academic credit to eligible students for the laboratory exploration of theatrical process as actors in the production program. The number of credits awarded will be determined in advance by the Program faculty on the basis of workload and the degree of difficulty of the assignment. A satisfactory written report, practicum journal, and participation in the production program will determine the final grade. CREA—450-454 may be taken more than once to a maximum of six credits, but may not exceed three credits in any one semester. A field trip to a professional production is required. Lab Fee. Prerequisites: Permission of program director and CREA—219. (ATTR: ARTS, EXCA, NOEX)

CREA—451. Directing Practicum 1-3 credits

This course awards academic credit to eligible students for the laboratory exploration of theatrical process as directors in the production program. The number of credits awarded will be determined in advance by the Program faculty on the basis of workload and the degree of difficulty of the assignment. A satisfactory written report, practicum journal, and participation in the production program will determine the final grade. CREA—450-454 may be taken more than once to a maximum of six credits, but may not exceed three credits in any one

semester. A field trip to a professional production is required. Lab Fee. Prerequisites: Permission of instructor and CREA—349. (ATTR: ARTS, EXCA, NOEX)

CREA—452. Design Practicum 1-3 credits

This course awards academic credit to eligible students for the laboratory exploration of theatrical process as designers in the production program. The number of credits awarded will be determined in advance by the Program faculty on the basis of workload and the degree of difficulty of the assignment. A satisfactory written report, practicum journal, and participation in the production program will determine the final grade. CREA—450-454 may be taken more than once to a maximum of six credits, but may not exceed three credits in any one semester. A field trip to a professional production is required. Lab Fee. Prerequisites: Permission of instructor and CREA—345 (Scenery Design) or CREA—347 (Lighting and Sound Design) or CREA—348 (Costume/Makeup Design). (ATTR: ARTS, EXCA, NOEX)

CREA—453. Technology Practicum 1-3 credits

This course awards academic credit to eligible students for the laboratory exploration of theatrical process as technicians in the production program. The number of credits awarded will be determined in advance by the Program faculty on the basis of workload and the degree of difficulty of the assignment. A satisfactory written report, practicum journal, and participation in the production program will determine the final grade. CREA—450-454 may be taken more than once to a maximum of six credits, but may not exceed three credits in any one semester. A field trip to a professional production is required. Lab Fee. Prerequisites: Permission of instructor. (ATTR: ARTS, EXCA, NOEX)

CREA—454. Stage Management Practicum 1-3 credits

This course awards academic credit to eligible students for the laboratory exploration of theatrical process as stage managers in the production program. The number of credits awarded will be determined in advance by the Program faculty on the basis of workload and the degree of difficulty of the assignment. A satisfactory written report, practicum journal, and participation in the production program will determine the final grade. CREA—450-454 may be taken more than once to a maximum of six credits, but may not exceed three credits in any one semester. Lab Fee. Prerequisites: Permission of instructor. (ATTR: ARTS, EXCA, NOEX)

CREA-460. Figure Studio 3 credits

A studio course exploring the unique place of the human body within the tradition of two-dimensional art. Drawing and painting from live models with emphasis on the creative application of the media and techniques taught. Prerequisites: CREA-200. (ATTR: ARTS, CFH, EXCA)

CREA—480. Internship in Creative Arts 1-3 credits

The internship provides students with practical experience in a professional arts environment. Prerequisite: Permission of the department chair. (ATTR: ARTS, INT, EXCA, NOEX)

CREA—490. Seminar in Creative Arts 3 credits

An integration of the Creative Arts major that investigates issues related to the contemporary art world as exemplified in students' research and creative interests. Though intensive study and research, students will examine current trends, and critical perspectives in art. Field trips may be required. Prerequisites: Completion of a minimum of 30 credits in Creative Arts and concurrent registration in any unfulfilled major requirements. (ATTR: ARTS, NOEX)

CREA—497. Independent Study in Creative Arts 0 - 3 credits

Qualified students may pursue a topic of their choosing that must be submitted in writing and approved by the professor and the department.

Theatre Certificate

Students earning a certificate in the Theatre Program may choose to pursue careers as directors, educators, or theatre practitioners. They may also wish to develop a further understanding and appreciation of the art form through graduate study.

Requirements for the Theatre Certificate (24.000 credits):

CREA 104	Introduction to Theatre	3 cr.
CREA 219	Acting I	3 cr.
CREA 349	Directing	3 cr.

Students must take one course from each of the following sections:

Survey of Dramatic Literature:		
ENGL 250	The Drama	3 cr.
Theatre History:		
CREA 251	World Theatre History	OR
CREA 258	Diversity in American Theatre	3 cr.
Theatre Design and Technology:		
CREA 145	Intro to Theatre Design & Technology	OR
CREA 345	Scenery Design	OR
CREA 347	Lighting and Sound Design	OR
CREA 348	Costume and Makeup Design	3 cr.
Theatre Elective:		
CREA 213	Basics of Singing	OR
CREA 254	Opera I	OR
CREA 297	Special Topics: Creative Arts	OR
CREA 330	Acting II	OR
CREA 397	Advanced Topics: Creative Arts	OR
CREA 480	Internship in Creative Arts	OR
ENGL 302	Shakespeare	OR
ENGL 285	Topics in English (DRAM)	3 cr.
One additional course from between CREA 450 through CREA 454		3 cr.

Internship

Students enrolled in the Theatre Certificate Program have the option of choosing an internship with a professional theatre organization (CREA—480 Internship in Creative Arts) provided advance approval from the major advisor and the department chair. To be considered for an internship, the student must satisfy the academic standards for the certificate program, and must have achieved at least a B grade in all courses required for the certificate. All internships must be in one of the following areas: acting, directing, scenery, costume, lighting, sound, or stage management. Sales or box office positions would not qualify.

Economics Department

Chair: Dr. Aaron N. Pacitti, Assoc. Prof.

Prof.: Dr. James F. Booker, Dr. W. Scott Trees

Assoc. Prof.: Dr. Arindam Mandal

Asst. Prof.: Dr. Matthew Davis, Dr. Ashley J. Provencher, Dr. Elias Shukralla

The Economics Department provides students with an opportunity to study the major economic relationships present in every society. Students will study alternative ways of meeting needs within institutional and resource constraints.

Students who wish to major in economics may choose from two courses of study leading to either a B.A. degree through the School of Liberal Arts or a B.S. degree through the School of Business. For information on the B.S. degree, please see the economics section under the School of Business.

The B.A. program offers students the methodology and analytical techniques appropriate for graduate work in economics and related professions such as Planning, Public Administration, and Law. It provides a foundation for research and analysis in academic and government institutions. Students will explore both theoretical and quantitative analysis, including work with general software and advanced statistical packages.

Requirements for the Major, B.A. in Economics (30.000 credits):

ECON 101	Principles of Economics, Micro	3 cr.
ECON 102	Principles of Economics, Macro	3 cr.
ECON 201	Micro-Economic Analysis	3 cr.
ECON 202	Macro-Economic Analysis	3 cr.

ECON 430	Econometrics		3 cr.
Economics electives (15 credits minimum; 9 credits must be at the 300 level or above)			15 cr.

Economics electives will be selected after consultation with an academic advisor to determine the best mix of courses to prepare the student for a career and educational goals.

B.A. Economics majors must complete 90 credits in “Arts.”

Auxiliary (9.000 credits)

One 100 level or higher CSIS course 3 cr.

QBUS 110	Math for Decision Making II	OR	
MATH 110	Calculus I		3 cr.

QBUS 200	Business Statistics	OR	
ATDV 110	Statistics for Social Science	OR	
MATH 371	Probability for Statistics		3 cr.

Requirements for the Minor, Economics (18.000 credits):

ECON 101	Principles of Economics, Micro		3 cr.
ECON 102	Principles of Economics, Macro		3 cr.

ECON 201	Micro-Economic Analysis	OR	
ECON 202	Macro-Economic Analysis		3 cr.

Three Economics Electives 9 cr.

Please Note: For B.A. and B.S. Economics majors, four Finance courses are cross-listed with Economics and count toward the degree (FINC—212 = ECON—210; FINC—413 = ECON—313; FINC—421 = ECON—420; FINC—422 = ECON—320).

Description of Courses

ECON—101. Principles of Economics, Micro 3 credits

This course introduces students to fundamental economic concepts and theory, including demand, supply, and the formation of equilibrium prices in product and resource markets. In addition, the course offers an introduction to applied fields such as industrial organization (market structures), labor economics, unionism, international trade, and market failure. (ATTR: ARTS or BUS, CAS, ISP, CDS, STVS)

ECON—102. Principles of Economics, Macro 3 credits

This course examines the foundations of economic theory as it relates to unemployment, inflation, and economic growth. Topics might include aggregate demand, aggregate supply, market equilibrium, national income accounting, theories of income determination, money and banking, and fiscal and monetary policies. (ATTR: ARTS or BUS; CAS, ISP, CDS, STVS)

ECON—201. Micro-Economic Analysis 3 credits

An intermediate-level treatment of the theories of consumer behavior and demand, production and cost, the firm and market organization, and factor markets. Microeconomic topics might include price control, pollution, efficiency, equity, taxes, subsidies, and government regulation. Prerequisite: ECON—101 and QBUS—110 or MATH—105 or MATH—110. (ATTR: ARTS or BUS)

ECON—202. Macro-Economic Analysis 3 credits

An intermediate-level examination of Classical and Keynesian models of income determination, post-Keynesian thought and the Monetarist alternative, and the problems of inflation, employment, and growth. Prerequisite: ECON—102. (ATTR: ARTS or BUS)

ECON—210. Money and Banking 3 credits

This course is designed to develop the student’s understanding of the structure and function of our banking system and the role of monetary policy in determining economic activity. Topics included are: the nature of money, the term structure of interest rates, the regulation of commercial bank activity, and the macro-monetary

models used to predict future economic conditions. Prerequisite: ECON—102. (Same as FINC—212) (ATTR: ARTS or BUS; ISP)

ECON—230. U.S. Economic History 3 credits

The economic development of the United States from early beginnings to present time. A chronological approach is used to study economic aspects of the major problems of each period. Prerequisite: ECON—102. (ATTR: AMSB, ARTS or BUS)

ECON—235. History of Economic Thought 3 credits

A critical examination of the development of the major schools of economic thought from the seventeenth through the early twentieth centuries, with particular attention to mercantilism, classicism, marginalism, socialism, and neo-classicism. This course requires substantial reading, including primary texts. (ATTR: ARTS or BUS)

ECON—240. Environmental Economics 3 credits

An examination of how the natural environment is affected by the economic activities of society, and the physical and biological limitations imposed on the economy by the natural environment. Particular areas examined include the use of non-renewable natural resources, market failures, economic methods for analyzing pollution, cost/benefit analysis, the impact of population growth, and the values implicit in free market economies toward the natural environment. (Same as ENVA—300.) (ATTR: ARTS or BUS)

ECON—255. Comparative Economics 3 credits

A survey of different forms of national capitalist economic organization, e.g. comparisons of the U.S., Germany and Japan with regard to institutional and policy-making differences as they affect the distribution of wealth and income and social welfare. Other topics include comparisons of various socialist economies and formerly socialist economies in Eastern Europe and China, as well as the emerging hybrid forms of economic organization in those societies. Prerequisite: ECON—102 or permission of the instructor. (ATTR: ARTS or BUS; GLST, ILST, ISP)

ECON—290. Economics of Identity 3 credits

This course uses a political economy approach to examine economics and economic policymaking from the perspectives of gender, race and class. Through this course, we challenge dominant narratives of race, class and gender in economy theory and models of economic behavior. We examine how assumptions pertaining to these constructed categories permeate economic theorizing (about the household, the labor market, work, welfare, etc.) and policymaking, systematically reproducing unequal opportunities and outcomes. Prerequisite: ECON—101 or ECON—102 or permission of instructor. (ATTR: ARTS or BUS) (*Previously ECON—337*)

ECON—300. Topics in Economics 3 credits

This course will explore a topic not covered in regular offerings. May be taken more than once with specific content. Consult the fall and spring course schedule for specific topics offered. Prerequisite: ECON—101 and ECON—102. (ATTR: ARTS or BUS)

ECON—310. Financial Crises 3 credits

The course examines the underlying causes for the origins and propagation of the Great Recession of 2007. Though the primary trigger for the recession was the subprime mortgage crisis, but its origin can be traced to lax monetary policies, the “saving glut”, deregulation, securitization, the widespread use of derivatives, and income and wealth polarization. In response to the crisis, various monetary and fiscal policy steps have been taken. The purpose of this course is to develop analytical tools to understand the crises and policies henceforth from mainstream and heterodox perspective. In the process we will focus on understanding how money, the banking system, and the financial markets interact and affect the economy. We will also look at past financial crises in the United States and elsewhere in the world to compare and contrast the Great Recession of 2007. Prerequisites: ECON—202 or ECON—210. (ATTR: ARTS or BUS)

ECON —313. International Finance 3 credits

By expanding the student’s understanding of the financial system to include an international perspective, this course introduces the student to the role of international considerations within the development of corporate policy. The course examines the determination of exchange rates and operation of exchange markets. The application of these ideas will be extended to the firm’s management of foreign exchange exposure, cash management, and capital budgeting. Multinational banking and political risk management will also be studied. Prerequisites: FINC—212 or FINC—215 and FINC—301. (Same as FINC—413) (ATTR: BUS, GLST, ILST, ISP)

ECON—320. Public Economics and Finance 3 credits

Public finance focuses upon the rationale and impact of the government's collection of revenue and its expenditures. Topics to be covered include the budget system, principles of taxation, tax incidence, the principles of expenditures, the impact of spending on private behavior, as well as the ability of the process to produce appropriate decisions. Prerequisite: ECON—101 and ECON—102. (Same as FINC—422) (ATTR: ARTS or BUS)

ECON—322. Economics of Poverty 3 credits

This course examines the nature and extent of poverty in the United States from an economist's point of view. Special consideration is given to the antipoverty effects of existing and proposed government programs and policies. Competing theories of poverty and alternative approaches to research on poverty are investigated. Prerequisite: ECON—101 and ECON—102. (ATTR: ACOM, ARTS or BUS)

ECON— 325. Health Economics 3 credits

Health economics examines the economic forces which shape the delivery of health care services and the public health environment in which we conduct our everyday lives. The course also examines the health impacts and costs of alternative policy choices. Prerequisite: ECON-201. (ATTR: HSMR, ARTS or BUS)

ECON—328. Labor Economics 3 credits

A general survey of the American labor force reveals the changing nature of work, changing labor force participation rates by age and sex, and the growing importance of minority representation. Traditional labor market models of wage determination are supplemented by considerations of institutional constraints, employee benefits, and forms of wage discrimination. Special topics include: types of unemployment, federal manpower programs, and the history of American trade unionism. Prerequisite: ECON—201. (ATTR: ARTS or BUS)

ECON—332. Economics of Crime 3 credits

This course provides an overview of how economists define and measure crime. Students learn to use the economist's tools to examine: the costs of crime and crime prevention to society and the individuals in it; the behavior of criminals and potential criminals; the markets for criminal behavior and the goods and services that are produced in them; organized crime versus disorganized crime; and the public policies aimed at dealing with crime. Theoretical explanations for crime, victimization, patterns of criminal behavior and the dynamics of differential involvement of specific groups in the criminal justice system are explored. Prerequisite: ECON—101 and ECON—102. (ATTR: ARTS or BUS, ACOM, JMN)

ECON—335. Political Economy 3 credits

Political economy is the study of economic systems, institutions, and outcomes from the perspective of who gains and loses. Conflict over the distribution of these gains and losses, and the use of power to obtain a desired economic outcome will be the focal points of much of our analysis. As such, the methodology used in this course will differ substantially from that used by mainstream economics, which focuses primarily on efficiency and growth and ignores different concepts of economic justice and the role of distribution and power in affecting economic outcomes. To facilitate this approach, this course takes a critical look at American capitalism from contrasting theoretical perspectives, where the interaction of political, social, and cultural forces is brought to bear on economic interactions. This will allow us to develop a broader and more sophisticated perspective on how the American economy actually works, why it doesn't always work, who it works for and against, and why it changes over time. Prerequisite: ECON—202. (ATTR: ARTS or BUS)

ECON—360. Economic Development 3 credits

An analytical approach to the economic problems of the developing countries. The course includes a discussion of the theories of economic growth and development, including domestic and international issues. This material is augmented by the use of empirical studies of the developmental process. Prerequisite: ECON—201 or ECON—202. (ATTR: ARTS or BUS; GLST, ILST, MCCP)

ECON—362. Latin American and Caribbean Economic Development 3 credits

Latin American and Caribbean economic history and development within the context of historical, social and political processes that have shaped the region are covered. Prerequisite: ECON—202. (ATTR: ARTS or BUS, MULT, GLST, ILST, GSIB, GSSS, LASS)

ECON—370. International Trade Theory 3 credits

An examination of bases, advantages and problems of international trade from the perspective of classical, neoclassical and modern theories. Key topics include determinants of the gains from trade, changes in income

distribution resulting from trade, the rationale and consequences of commercial policies (e.g. tariffs, quotas and subsidies) and industrial policies designed to enhance the trade competitiveness of trading economies. Emphasis is placed on the consequences of income distribution from trade and, therefore, on questions of equity and efficiency. Prerequisite: ECON—201. (ATTR: ARTS or BUS; GLST, GSIB, ILST, ISP)

ECON—420. Business Financial Forecasting 3 credits

This course explores the nature and causes of fluctuations in aggregate business activity and the technique used to forecast. To gain an understanding of these techniques, and the usefulness of forecasts, students will prepare a forecast and explore its application to firm decision making. Prerequisite: QBUS—200 or MATH—470. (Same as FINC—421) (ATTR: ARTS or BUS)

ECON—430. Econometrics 3 credits

An introduction to the application of statistical techniques to economic problems. This course includes a review of probability theory, mathematical expectation, and theoretical frequency distributions along with considerations of modeling economic phenomena. Ordinary and two-stage least squares regression techniques are utilized for hypothesis testing and economic forecasting. Prerequisites: QBUS—200 or ATDV—110 or MATH—371, and ECON—201 or ECON—202. Alternatively, MATH—470 and ECON—101 and ECON—102.. (ATTR: ARTS or BUS, INRM)

ECON—450. Economics and the Popular Press 3 credits

This course looks at a number of books written for non-economists, and expects students to critically analyze their economic content. The required books are, with a single exception, chosen by the students enrolled in the class. In addition, students are expected to write and publish newspaper editorials on economic topics of their choosing. This course is very reading intensive, and emphasizes communication skills. Prerequisite: ECON—201 and ECON—202. Permission of Instructor required. (ATTR: ARTS or BUS)

ECON—490. Seminar in Advanced Economic Theory 3 credits

Analysis of selected topics on an advanced level. Topics are drawn from micro and macro-economics. The course is designed to acquaint the student with advanced subjects and original literature. This course may be taken more than once with different content. Prerequisites: ECON—201 and ECON—202. (ATTR: ARTS or BUS)

ECON—499. Independent Study 1 - 3 credits

A qualified student may pursue a particular project/topic in the field of Economics in his/her junior or senior year. The project requires the approval of the faculty member involved and the Department Head. A satisfactory written report and/or examination will determine the final grade. Only one independent project may be undertaken in any academic year. Prerequisites: ECON—201 and ECON—202 and Junior or Senior status. (ATTR: ARTS or BUS)

ECON—790. Washington Semester Economic Policy. Seminar I 4 credits

The Washington Economic Policy Semester provides a seminar which offers a theoretical analysis of contemporary economic problems; presentation of alternative paradigms used to understand economic problems; extensive readings; preparation of papers; and on-site discussions of economic policy decisions. Meetings are generally four to six times per week and may be held at field sites as well as on campus. (See: ATDV—788, 789) (ATTR: ARTS or BUS)

ECON—791. Washington Semester Economic Policy. Seminar II 4 credits

This is a correlated course to the work being carried on in ECON—790. (See: ATDV—788, 789)

ECON—792. Washington Semester Business and Trade Seminar I 4 credits (See: ATDV—788, 789)

ECON—793. Washington Semester Business and Trade Seminar II 4 credits (See: ATDV—788, 789)

Education Department

Chair: Dr. Mark Jury, Assoc. Prof.

Prof.: Dr. Robert Colesante

Assoc. Prof.: Fr. Kenneth Paulli, OFM

Asst. Prof.: Dr. Jesse Moya

Director of Field Experiences: Mrs. Jennifer Pendleton

The Education Department offers a long-established Teacher Preparation Program and a very new Educational Studies Minor. We provide a selection of courses enabling students across the College to examine and develop informed opinions on questions pertaining to the role of education in a democracy, questions of opportunity, equity and access, and issues of justice, the common good and human rights. These courses blend rigorous intellectual work in social science with focused field experiences/internships, and encourage students to apply new insights and understandings across a multitude of contexts. Also, as a CAEP-accredited institution, we offer a comprehensive program for students seeking New York State Initial Teacher Certification in Adolescence Education (grades 7-12) in the following areas: Biology, Chemistry, English, French, Mathematics, Physics, Social Studies, Spanish, and general science. The Department also offers a program leading to New York State Initial Teacher Certification in Business and Marketing (all grades). In addition, students who successfully complete EDUC—360 (Adolescence and Schooling) and EDUC—385 (Teaching and Learning in the Middle School), and who have completed an approved program for an initial certificate in adolescence education grades 7-12, are eligible for an extension of their teaching certificate into grades 5-6. For the non-certification student whose career goals are education-related, the Department provides the opportunity to develop a sequence of courses that will serve as a foundation for graduate work in fields such as elementary education, school psychology, guidance and counseling, school social work, literacy, special education, or TESOL (teaching English to speakers of other languages).

Teacher Preparation Program

The tradition of Siena College requires broad training in the liberal arts as well as a concentration in a major field of study. The Department's goal is to enable educators to acquire the professional knowledge base and competencies characteristic of effective teaching. Through our goal of preparing teachers well-grounded in the professional knowledge base and the Franciscan liberal arts tradition, the mission of the Education Department reflects the mission of the College. Within this framework, students develop the skills of critical thinking and expression as well as empathy and concern for all individuals.

As part of their course work, students will complete a minimum of one hundred and ten hours of field experience prior to the student teaching experience. For students in the certification sequence, these experiences are in varied secondary school settings and follow the guidelines outlined in the Field Experience Program Handbook. Students are responsible for their own transportation.

Students must apply for acceptance into the Teacher Preparation Program. Application is typically made early in the Spring semester (prior to February 1) of the student's junior year. Successful applicants will then complete the "Professional Sequence" in their senior year. The Professional Sequence consists of a content-specific instructional methods course and lab (EDUC—481 and EDUC—482) and a minimum of 40 hours of related field experience in the Fall, and full-time student teaching and two related seminars (EDUC—461 and EDUC—462) in the Spring. The Fall field experience will be split between a middle school and high school placement; the same middle and high school classrooms will be the sites for student teaching in the Spring.

The following requirements must be met before acceptance into the Teacher Preparation Program's Professional Sequence:

Siena Undergraduates

1. Successful completion of EDUC—210, EDUC—260, EDUC—261 and EDUC 365;
2. Submission of an acceptable portfolio, including application, CAPP Report, application essays, and graded paper from a course in the student's major;
3. Demonstrated success in field placements;
4. Evaluation and recommendation by The Education Department (minimum Education GPA of 3.0);
5. Evaluation and recommendation by the candidate's academic major department (Note: each major sets specific coursework and GPA requirements for students pursuing teacher certification; for these specific requirements, please check the catalog entry for that major; students interested in social studies certification should see either the History Department or American Studies Department pages);

6. Review and approval by the Education Professions Committee (EPC).
 Returning Students
 Same as above plus:
 1. Initial Interview with the Director of Field Experiences & Accreditation;
 2. Endorsement by the academic department after review of all transcripts;
 3. Two to three letters of recommendation from former professors and/or employers;
 4. Interview with the Education Professions Committee (EPC).

All written materials must be submitted to the Education Department Chair, prior to February 1 for the following academic year's Professional Sequence. A minimum grade of "B" in all courses within the Professional Sequence is required to maintain good standing as a candidate in the program. All students seeking certification for teaching a foreign language must take the Oral Proficiency Interview and receive a score of at least Intermediate High to be approved as a candidate and must receive a score of at least Advanced Low before completing the program to receive the college's recommendation for certification.

Students who withdraw from the certification program or who postpone their professional semester without informing the Education Department in writing will be required to reapply.

Students who complete the program requirements and receive a score acceptable to the Commissioner of Education on the three required New York State Teacher Certification Examinations (EAS, CST, edTPA) will be eligible to apply for the New York State Initial Certificate in their field.

Verified certification exam data for Siena College program completers for the 2013-14 through 2015-16 academic years are as follows the Education All Students (EAS) - pass rate = 98%; the Content Specialty Tests (CST) - pass rate = 89%; and the Teacher Performance Assessment (edTPA) – pass rate = 94%.

Although they will be advised through the appropriate department concerning requirements in their major, students in education programs should consult with the Education Department faculty early concerning program and certification policies. Students who are not following the certification program, but who are interested in using education for related career opportunities, may seek advisement from the Education Department staff as well. We certainly encourage these students to explore the Educational Studies Minor (see details below).

Relevant statistics about the labor market and job availability for each certificate title for which a teacher education program is offered, including the source of the statistics and the period of time and geographic area to which the statistics refer, may be found at the Siena College Education Department website (<http://www.siena.edu/education>), which also contains links to relevant supply and demand data supplied by the New York State Education Department.

Requirements for the Education Certification (30.000 credits):

EDUC 210	Issues in Contemporary American Education	3 cr.
EDUC 260	Educational Psychology	3 cr.
EDUC 261	Foundations in Language and Literacy	3 cr.
EDUC 365	Exceptional and At-risk Learners	3 cr.

After completing these courses, one must apply to the Education Department.

Upon approval, the following courses are required to obtain the certification:

EDUC 481	Instructional Theory & Practice in Inclusive Classrooms	3 cr.
EDUC 482	Instructional Theory & Practice in Inclusive Classrooms	1 cr.

The following courses are completed during the semester students participate in student teaching:

EDUC 461	Literacy: Middle and High School	3 cr.
EDUC 462	Literacy and Reflective Practitioner	1 cr.
EDUC 487	Clinical Experience in Middle School	5 cr.
EDUC 488	Clinical Experience in High School	5 cr.
EDUC 495	Drug Alcohol Tobacco Workshop	0 cr.
EDUC 496	Child Abuse and School Violence Workshop	0 cr.

Students need to plan their programs so that they may follow the requirements of the year-long Professional Sequence. Students planning to study abroad are urged to consult early with faculty in the Education

Department about their schedules. The international experience may not interrupt the Professional Sequence. Transfer students interested in the certification program should also contact the Education Department prior to planning their coursework at Siena.

Initial Teacher Certification for those already holding the bachelor's degree. On a limited basis the Department offers the opportunity to attain an Initial Teaching Certificate in Adolescence Education (grades 7-12) or an Initial Teaching Certificate in Business and Marketing (all grades) to individuals who already possess a Bachelor's degree. The program consists of a minimum of 30 credit hours, not including the State foreign language requirement. To be admitted to the program, the individual must meet the requirements for Returning Students outlined above. Further information is available in the Education Department. A minimum overall GPA of 2.75 is required. Individual programs will vary according to the prior educational experiences of the student; however, any program devised will always contain the requirement for completion of the entire Professional Sequence through Siena's Education Department.

Education Electives: In addition to meeting the minimum requirements for certification, the Department encourages its students to elect other education courses that will broaden their professional knowledge and increase their ability to deal with the complex issues addressed by classroom teachers of today. These electives are also open to non-education teacher certificate students who desire to consider educational questions in a formal manner.

Graduate Program Agreements: Siena College has agreements with the Master of Arts in Teaching program at Clarkson University and various Master's degree programs in education at Sage Graduate School.

Under the Siena College/Clarkson University Articulation Agreement, both institutions have agreed to a process leading to the automatic admission of qualified Siena students into the MAT (Master of Arts in Teaching) at Clarkson following completion of their Siena degree. It will be required that these students:

1. have taken an undergraduate Educational Psychology course"
2. have completed at least one semester of foreign language or sign language at the
3. college level, and
4. will graduate from Siena with a cumulative grade point average of 3.2 or higher both in their area of concentration and in their overall program.

Furthermore, interested students will be asked to complete the Clarkson graduate application which includes:

- a. application
- b. essay
- c. three letters of recommendation
- d. official transcripts from all higher education institutions
- e. interview with a Clarkson Education faculty including an on-demand writing sample
- f. GRE results with a score in the top 50th percentile

Qualified Siena graduates will receive an automatic three-course scholarship from Clarkson, representing a 30% reduction in tuition costs.

Under the Siena/Sage Agreement Siena graduates who have completed our secondary certification program will receive automatic acceptance to a Master's degree program in Elementary Education, Health Education, Guidance and Counseling, Literacy, Special Education, and Literacy/Special Education. Siena students who do not enter our secondary certification program can still receive automatic acceptance in the programs listed above by completing an acceptable series of courses at Siena with a recommendation from Siena Education Department faculty. Other advantages include waiver of the application fee, graduate advisement in spring of the senior year and automatic acceptance into the one-year, paid internship program and the opportunity to apply early for graduate assistantships in Sage Graduate Schools. Note: In compliance with the New York State Education Transformation Act of 2015, Sage Graduate School now requires that individuals who apply to any graduate program leading to New York State certification in classroom teaching and/or in educational leadership must submit their Graduate Record Examination (GRE) scores (effective with applications for Fall 2016).

Educational Studies Minor

Dr. Jesse Moya, Director

The Educational Studies Minor offers students an opportunity to examine and develop informed opinions on questions pertaining to the role of education in a democracy, questions of opportunity, equity and access, and issues of justice, the common good and human rights. Through a set of

courses, individual research and faculty guidance, students in the Minor develop a sophisticated understanding of an education-related area of concentration of their choice. This Minor is designed not only for students who complete Siena’s Teacher Preparation Program, but also for students with other interests in education. For instance, the Minor is perfect for students who: 1) wish to pursue certification at the graduate level in elementary education, special education, school guidance & counseling, school social work, school psychology, or school district business leadership; 2) anticipate having professional responsibility in settings such as corporate training and staff development; 3) anticipate working with children and adolescents outside of school setting; 4) have an interest in a career in the political realm serving as a legislative aide or representing and/or lobbying for educational organizations such as a state school boards association or a teachers’ union; 5) intended to teach at the secondary level but whose course requirements leave little room in their undergraduate program for our certification program; and/or 6) intend to teach in higher education.

Requirements for the Minor, Educational Studies (18.000 credits):

EDUC 210	Issues in Contemporary American Education	3 cr.
EDUC 400	Proseminar	3 cr.

Students enrolled in the minor need 12 additional credits, six of which must be taken from the following:

EDUC 260	Educational Psychology	3 cr.
EDUC 261	Foundations of Language and Literacy	3 cr.
EDUC 310	Topics in Education	1 to 3 cr.
EDUC 360	Adolescence and Schooling	3 cr.
EDUC 365	Exceptional and At-Risk Learners	3 cr.
EDUC 385	Teaching and Learning in the Middle School	

If students do not take 12 credits from those listed above, they may take the additional credits from the following classes:

EDUC 220	Democracy and Pluralism in American Education	3 cr.
EDUC 225	Sociology of Education	3 cr.
EDUC 230	Philosophy of Education	3 cr.
EDUC 275	TESOL Methodology	3 cr.

Students may substitute six of the required credits by completing interdisciplinary course work. The student that elects to include interdisciplinary course work will be required to develop a plan to be reviewed by two Education Department faculty members, that identifies relevant courses and justifies their inclusion. Students interested in this option are encouraged to contact the Director of the Educational Studies Minor, Dr. Jesse Moya.

Description of Courses

EDUC courses are open to all students with the exception of courses in the “professional sequence” (those numbered EDUC 461 through EDUC 488)

EDUC—210. Issues in Contemporary American Education 3 credits

This introductory course orients the student to the professional field of education and schooling in the United States. Issues researched and discussed include but are not limited to the following: history and philosophy of education; purpose and role of public education; rights and responsibilities of all educational stakeholders; governance at the local, state, and federal level; and interactions among the school, home, and community that support and enhance student learning. In particular, this course will explore the issue of educational access, emphasizing student diversity within the full range of disabilities and special needs. A ten-hour field experience is required (transportation is the responsibility of each student). For students pursuing Siena’s certification sequence, the field experience must be at the secondary level (grades 7-12). (ATTR: ARTS, CAS, CDS)

EDUC—216. Gender, Culture and Schooling 3 credits

This course is an introduction to the study of gender in schools using a cross-cultural perspective. The course will examine the social and cultural construction of gender, gender roles, and the institutions that influence, and are influenced by, gender. Central to the course is the investigation of how gender and sexuality exist today, how

they have changed over time and place, and their relevance to schools in both industrial and developing societies. Specific topics include: the cultural construction of gender and personhood; sexuality and the body; the sexual division of labor; kinship; property and the state; politics and reproduction; and the global economy. We will examine the following school based topics as well: models and outcomes of single sex education, discrimination based on gender, sex, and sexuality, the Similarity hypothesis, among others. To this end, the course will critically examine the interconnections between gender, sexuality, power, inequality and access to education. This course fulfills a requirement for the Minor in Educational Studies, Multicultural Studies Minor, and the Women's, Gender, and Sexuality Studies Minor. (ATTR: ARTS, MULT, WSTU)

***EDUC—220. Democracy and Pluralism in American Education 3 credits

This course will analyze developments in American education from the colonial period to the present. Since educational theories and systems create and are created by the social, intellectual, economic, and political milieu, educational developments will be viewed in the light of important trends in American society. Attention will be given to fundamental ideological questions including the relationship of power and participation to education and instruction in a democratic society. (ATTR: ARTS)

EDUC—225. Sociology of Education 3 credits

Students in this course will examine the relationship between education and society from a sociological perspective. The course will examine the work of educational theorists over the last 100 years in an effort to understand the purpose of education and the various explanations for differential educational outcomes. Specifically, the readings focus on the role that class, race, language and gender play in students educational experiences and outcomes. By the end of the course, students will have increased their theoretical repertoire and will be able to analyze and discuss patterns of student achievement from a variety of perspectives. Same as SOCI-225. (ATTR: ARTS, CFJ)

***EDUC—230. Philosophy of Education 3 credits

In this course, each student will be required to read a variety of texts representing contrasting educational philosophies. The purpose of the course is to promote awareness of the existence of numerous philosophies of education, to demonstrate the practical educational implications derived from each theory, and to assist each student in the formulation of an educational philosophy suitable to the needs of his/her professional and/or personal life. (ATTR: ARTS)

EDUC—260. Educational Psychology 3 credits

This course is intended to help the prospective teacher interact effectively in the social-learning environment that is established between student and teacher and among students in group and individualized settings. The focus is theoretical as well as applied. Emphasis is on establishing a foundation for making sound and informed educational decisions based on the body of knowledge that pertains to teaching and learning within the framework of human development. Differences between the middle school and high school populations will be explored. As an outcome of the course, the prospective teacher should be able to apply knowledge of the learner, the learning process, and the learning setting to create an environment that offers a diverse student population the greatest opportunity to learn. A twenty-hour field experience is required (transportation is the responsibility of each student). For students pursuing Siena's certification sequence, the field experience must be at the secondary level (grades 7-12). (ATTR: ARTS)

EDUC—261. Foundations of Language and Literacy 3 credits

The acquisition and development of language is examined as the foundation of literacy. Three populations are studied: native English speakers with intact abilities and with impairments; speakers whose dominant language is not English; and speakers of variants of English. Children and early adolescents are viewed as applying cognitive strategies actively in processing spoken language and in deriving meaning from print. Topics include environmental influences on language and literacy, discourse theory, pragmatics, participation structure, literacy at home and in school, use of writing and of literature to enhance learning, and the impact of technology on literacy. A twenty-hour field experience is required (transportation is the responsibility of each student). For those pursuing Siena's certification sequence, the field experience must be at the secondary level (grades 7-12) in a "high needs" school. (ATTR: ARTS, CFD)

EDUC—275. TESOL Methodology 3 credits

TESOL is designed to equip pre-service teachers with the theoretical background and strategies for successfully teaching English to those who speak languages other than English in their homes. Additionally, TESOL will give students a brief introduction to current New York State ESOL Standards. Through in-depth readings, classroom discussions, and presentations, students will begin to master the body of knowledge relevant to teaching English Language Learners (ELLs) in New York State. A field experience component including observation of

experienced ESOL educators and developing, planning, and teaching lessons to recent newcomers to the United States will help students develop successful classroom strategies and practices. To help facilitate community in ELL classrooms, as well as to promote deeper appreciation for human diversity, this course also includes an in-depth look at the US refugee experience, particularly as it relates to English Language education and cultural understanding. Students will participate in a Cross-Cultural Solidarity Experience (CCSE) to include film, readings, guest lectures, and a field experience in inner-city classrooms with high refugee student populations. Thus, they will both instruct and learn from refugees as well as experts in the field of refugee resettlement. (ATTR: ARTS, CF)

EDUC—310. Topics in Education 1 - 3 credits

This course provides the opportunity to explore changing trends and challenges in America's schools, to address current issues affecting education, educational issues on the national agenda, state and national initiatives, and/or important developments in areas such as curriculum, instruction, urban education, assessment, or technology. The topic is one not normally investigated in depth in existing courses. This course may be taken more than once with different content. Offered as needed. 1 to 3 credits, depending on the topic. (ATTR: ARTS)

*****EDUC—350. An Introduction to Educational Research 3 credits**

The purpose of this course is to explore the area of educational research. Emphasis will be placed upon the attitude as well as the function of research, including the principles, methods, and strategies useful in planning, designing, and evaluating studies of education. Students will plan, design, and prepare a proposal that incorporates principles of research. The proposal will, when the opportunity permits, be translated into an empirical study. (ATTR: ARTS)

EDUC—360. Adolescence and Schooling 3 credits

Students will review narrative accounts of the school experiences of adolescents from diverse backgrounds. Their first task will be to consider how narrative, empirical, and theoretical knowledge provide different perspectives on understanding the school lives of adolescents. Then, they will examine how cultural canons about adolescence influence the many ways that young people live out their lives in school. They will review and interpret narrative accounts of schooling through fiction, autobiography, movies and self-reflection about adolescence. Students will not be "given the answers" or told what to think about adolescence and schooling. Rather, readings and class presentations will provide them with information and theoretical points of view which sometimes conflict. Ultimately, they will be asked to examine these multiple perspectives to create their own way of viewing adolescents in school settings. A twenty-hour field experience at the middle school or junior high school level is required (transportation is the responsibility of each student). Offered every Fall. (ATTR: ARTS)

EDUC—365. Exceptional and At-risk Learners 3 credits

This course is intended to serve as an introduction to the study of exceptional children. Students in the course will become familiar with the broad range of exceptionalities from giftedness to intellectual disabilities. While the main focus will be education of the exceptional person, emphasis will also be placed upon social and legal considerations. The course is recommended for those who are interested in regular classroom teaching as well as special education and school psychology or social work. A twenty-hour field experience working with children who have special needs is required (transportation is the responsibility of each student). (ATTR:ARTS)

EDUC—385. Teaching and Learning in the Middle School 3 credits

The major focus of this course will be on the nature, needs, and characteristics of the adolescent learner, as well as the philosophy, curriculum, and pedagogy (including methods and materials) appropriate for middle-level education in New York State. This course will address diverse instructional strategies, including interdisciplinary teaching, teaming, and cooperative learning. Successful middle-level educational programs, which focus on and promote both the intellectual and personal development of the early adolescent, will be examined. A twenty-hour field experience is required at the middle school or junior high school level (transportation is the responsibility of each student). Offered every Spring. (ATTR: ARTS)

EDUC—400. Education Proseminar 3 credits

This is an advanced level reading and discussion seminar that also serves as the capstone course for the Educational Studies Minor. In this course, students will explore their designated areas of concentration in depth, develop a substantial paper based on this interest and present it to the campus community. Students will also learn about educational research methods and current issues in educational studies. These course topics will vary depending on the areas of concentration of enrolled students, who will help to do/develop portions of the syllabus to align with their research interests. Enrollment in this course is limited to students who have

completed at least 12 of the 18 hours required for Educational Studies Minor (i.e., students may be concurrently enrolled in one other education course while taking Proseminar). Prerequisite: EDUC 210. (ATTR: ARTS)

EDUC—461. Literacy and the Reflective Practitioner (Lecture) 3 credits

This course, which accompanies clinical practice, is designed to address current issues and practices in literacy development in the content areas at the middle and high school levels, and assists prospective teachers in reflecting upon and improving their student teaching experience. Emphasis is on the responsibility of teachers of all subjects to create a literate environment in their classroom and to develop the literacy skills of students of all ability levels as well as of students who are English language learners. Specific instructional strategies will be explored that enable teachers to engage learners actively with course content, to enhance critical thinking skills and expression of ideas, to promote metacognitive skills and study skills, and to develop critical skills in evaluating sources of information. Special topics, including the utilization of technology and assistive technology to further learning and working with students from diverse backgrounds and with differing abilities will be stressed. Prerequisite: Admission to the Professional Sequence. (ATTR: ARTS)

EDUC—462. Literacy and Reflective Practitioner (Laboratory) 1 credit

EDUC—481. Instructional Theory & Practice in Inclusive Classrooms (Lecture) 3 credits

This course, which considers the theory and practice of effective instructional practices in diverse classrooms, will focus on the components of instruction and will be practice-oriented and performance-based. Additionally, this course provides prospective teachers with a framework to help them reflect on and improve their student teaching experience. Consequently, students will study Danielson's Framework for Teaching and use it to analyze their success within the four domains of planning and preparation, classroom environment, instruction, and professional responsibilities. Emphasis will be given to the understanding and application of the New York State Student Learning Standards in inclusive subject area classrooms. Such topics as unit planning and lesson planning, motivation, inclusion, diversity, teacher expectations, questioning skills, feedback strategies, methodology, technologies, and evaluation and assessment will be studied. The prospective teacher will develop and practice behaviors and strategies characteristic of effective teaching. Attention will be given to ways to place middle and high school students in more active roles as learners. Students pursuing Siena's teacher certification program will be required to successfully complete a forty-hour field experience in inclusive classrooms at the secondary level (grades 7-12). This course is available for all areas of certification. It is open to students seeking certification in French or Spanish in the fall semester only; in Business Marketing in the fall semester only; in Biology, Chemistry, and Physics in the fall semester only; and in Mathematics in the spring semester only. Prerequisites: EDUC—210, EDUC—260, EDUC—261, EDUC-365 and admission to the Professional Sequence. (ATTR:ARTS)

EDUC — 482. Instructional Theory & Practice in Inclusive Classrooms (Laboratory) 1 credit

EDUC—487. Clinical Experience in the Middle School 5 credits

This course will give the prospective teacher sustained experience in the middle school classroom. In addition to teaching, the student is expected to assume other professional responsibilities that are assigned to him/her by the cooperating teacher and/or principal. It is expected that student teachers will gradually add teaching responsibilities and assume a full teaching load. The student will return to the College for scheduled classes or seminars with the College staff. Prerequisites: EDUC—481 and admission to the Professional Sequence. Note: All students will be personally responsible for transportation arrangements. (ATTR: ARTS)

EDUC—488. Clinical Experience in the High School 5 credits

This course will give the prospective teacher sustained experience in the high school classroom. In addition to teaching, the student is expected to assume other professional responsibilities that are assigned to him/her by the cooperating teacher and/or principal. It is expected that student teachers will gradually add teaching responsibilities and assume a full teaching load. The student will return to the College for scheduled classes or seminars with the College staff. Prerequisites: EDUC—481 and admission to the Professional Sequence. Note: All students will be personally responsible for transportation arrangements. (ATTR: ARTS)

EDUC—495. Drug, Alcohol, & Tobacco Workshop 0 credits

This six-hour workshop is designed to provide the student with knowledge of physical and psychological addiction to controlled substances; chemical dependency; drugs of abuse; legal issues for teachers; behavioral indicators of substance abuse; goals of a school wide substance abuse prevention program; goals of a school wide intervention program; curriculum materials on decision-making, coping strategies, and self-esteem; issues of adolescence; and the continuum of services. Prerequisite: Enrollment in the Professional Semester. Fee required. (ATTR: ARTS)

EDUC—496. Child Abuse and School Violence Workshop 0 credits

This six-hour workshop is designed to provide the student with knowledge of the definition of abuse, maltreatment, and neglect according to NYS Family Court Act and Social Services Law; situations requiring reporting of suspected cases of child abuse maltreatment; a description of what constitutes reasonable cause to suspect child abuse or maltreatment; proper procedure for making a report of suspected child abuse; actions mandated reporters may take to protect a child in addition to filing a child abuse report; legal responsibilities in reporting that teachers have as care providers; legal protections afforded reporters and consequences for failing to report; distinctions among various behavioral and physical characteristics of abusive parents and caretakers; physical and behavioral indicators of physical abuse, maltreatment, and neglect; contrast between physical and behavioral indicators of sexual abuse; child abduction; and general principles for interviewing or interacting with child victims. The workshop also provides the training in School Violence Prevention and Intervention. Prerequisite: Enrollment in the Professional Semester. Fee required. (ATTR: ARTS)

***EDUC—499. Independent Study in Education 1 - 3 credits

A qualified student may pursue a particular topic in Education by means of independent research, periodic discussion with the department member concerned, and the development of a satisfactory written report. Approval for independent study must be obtained from the Department Chair, and the student will be expected to comply with all College guidelines concerning such projects. (ATTR: ARTS)

English Department

Chair: Dr. Erich Hertz, Prof.

Prof.: Dr. Pamela Clements, Dr. J. Gerard Dollar, Dr. Lisa Nevárez,

Dr. Rachel Stein, Dr. Charles R. Trainor, Dr. Meg Woolbright

Assoc. Prof.: Dr. Chris Farnan (sabb. Sp '18), Ms. Karin Lin-Greenberg, Dr. Chingyen Mayer,

Dr. Todd Snyder (sabb. F '17), Dr. Keith M. Wilhite (sabb. Sp '18)

Asst. Prof.: Dr. Christi Spain-Savage

Visiting Asst. Prof.: Dr. Chantelle Thauvette

Visiting Instructor: Ms. Elaina Frulla

As its principal mission the English Department seeks to foster an understanding of and appreciation for literature. To realize this mission, the department is committed to: teaching literature that represents the cultural diversity of our society; encouraging students to think critically and to express themselves clearly; extending our students' critical vocabulary and familiarity with literary history; and helping students integrate their Franciscan liberal arts education, by making them aware of the many links between literature and other fields.

In its major the department seeks to provide not only a strong background in American and English literary history but also a variety of approaches to literature — thematic, structural, generic, cultural, and gender-related. Courses in advanced writing, oral communication, creative writing, and journalistic writing aim at developing thoughtful and creative self-expression. A program in English education prepares students for careers in teaching. A professional internship program provides students with practical experience in print and broadcast journalism, public relations, and other career possibilities. A series of honors seminars challenges our best students to explore — at an in-depth and scholarly level — particular writers or themes.

A final mission of the English Department is to enhance the cultural and intellectual climate of Siena College — through, among other things, encouraging scholarly research and publication by the English faculty, sponsoring a visiting artist series, advising a student literary club and journal, and supporting interdisciplinary programs.

English Honors Program: A program of seminars for outstanding students. The program is student centered, designed for those who seek an intellectually exciting, collaborative learning experience. Instruction is conducted in seminar format, with students encouraged to take an active role in determining the direction of the class. The seminars allow close communication and interaction between a small number of students and the faculty, enriching the learning process. Entering students are invited to join the Great Books seminar on the basis of their high school record and SAT scores. Upper division Honors

Seminars are open to qualified students in any major with permission of the instructor. Students in any major who complete a minimum of four Honors seminars with an average of B+ or better, and maintain a cumulative index of at least 3.3, are eligible for a Certificate of Honors in English upon graduation.

Requirements for the Major, B.A. in English (39.000 credits):

ENGL 101	Introduction to Literature	OR	
ENGL 190	Honors Great Books		3 cr.
ENGL 200	Survey of English Literature I		3 cr.
ENGL 205	Survey of English Literature II		3 cr.
ENGL 213	Survey of American Literature		3 cr.

It is recommended that students take ENGL 200, ENGL 205, and ENGL 213 Before the end of their sophomore year, if possible.

At least 3 credits, but not more than 9 credits from 200-level courses: 3-9 cr.

ENGL 210	Women in Literature
ENGL 215	Sexuality in Literature
ENGL 220	Literature of the Environment
ENGL 222	Reading Film
ENGL 225	Comedy
ENGL 230	History of the English Language
ENGL 235	Science Fiction
ENGL 236	Adolescent Literature
ENGL 245	Early American Books and Maps
ENGL 250	The Drama
ENGL 253	The Short Story
ENGL 256	The Novel
ENGL 259	Poetry
ENGL 262	African American Literature
ENGL 265	Native American Literature
ENGL 268	Asian American Literature
ENGL 271	Latino/a Literature
ENGL 272	Literature of the War in Vietnam
ENGL 285	Topics in English

At least 15 credits from 300-level and above courses: 15-21 cr.

ENGL 300	Chaucer
ENGL 302	Shakespeare
ENGL 305	Elizabethan Literature
ENGL 310	English Renaissance Literature
ENGL 315	Literature of the Enlightenment
ENGL 320	Romantic Literature
ENGL 325	Victorian Literature
ENGL 330	Modern British Writers
ENGL 335	Irish Literary Revival
ENGL 340	Contemporary Irish Literature
ENGL 342	Contemporary British Culture
ENGL 345	Early American Literature
ENGL 350	American Literary Renaissance
ENGL 355	Realistic Movements in American Literature
ENGL 360	American Literature of the Jazz Age
ENGL 365	Cold War Literature
ENGL 367	The Horror Novel
ENGL 378	Contemporary American Literature
ENGL 395	Literary Criticism*
ENGL 480	Internship in English
ENGL 490	Honors Seminar

ENGL 499	Independent Study
ENGL 790	Washington Semester Journalism Seminar I
ENGL 791	Washington Semester Journalism Seminar II

Students may apply one 200-300 level WRIT course towards the completion of the 300-level and above ENGL requirements.

*It is recommended for students who plan to attend graduate school to take ENGL 395 Literary Criticism.

Culminating Seminar:

ENGL 498	English in the World	3 cr.
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Auxiliary (6.000 credits)

Two semesters in the same foreign language including American Sign Language.	6 cr.
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B.A. in English (39.000 credits) with a Certification in English Education:

English majors seeking initial teaching certification in grades 7-12 will need to maintain at least a 3.15 in English as well as an overall GPA of 3.0.

ENGL 101	Introduction to Literature	OR	3 cr.
ENGL 190	Honors Great Books		
ENGL 200	Survey of English Literature I	3 cr.	
ENGL 205	Survey of English Literature II	3 cr.	
ENGL 213	Survey of American Literature	3 cr.	
ENGL 230	History of the English Language	3 cr.	
ENGL 236	Adolescent Literature	3 cr.	
ENGL 302	Shakespeare	3 cr.	

It is recommended that students take ENGL 200, ENGL 205, and ENGL 213 Before the end of their sophomore year, if possible.

At least 3 credits, but not more than 6 credits from 200-level courses: 3-6 cr.

ENGL 210	Women in Literature
ENGL 215	Sexuality in Literature
ENGL 220	Literature of the Environment
ENGL 222	Reading Film
ENGL 225	Comedy
ENGL 235	Science Fiction
ENGL 245	Early American Books and Maps
ENGL 250	The Drama
ENGL 253	The Short Story
ENGL 256	The Novel
ENGL 259	Poetry
ENGL 262	African American Literature
ENGL 265	Native American Literature
ENGL 268	Asian American Literature
ENGL 271	Latino/a Literature
ENGL 272	Literature of the War in Vietnam
ENGL 285	Topics in English

At least 12 credits from 300-level and above courses: 12-15 cr.

ENGL 300	Chaucer
ENGL 305	Elizabethan Literature
ENGL 310	English Renaissance Literature
ENGL 315	Literature of the Enlightenment
ENGL 320	Romantic Literature

ENGL 325	Victorian Literature
ENGL 330	Modern British Writers
ENGL 335	Irish Literary Revival
ENGL 340	Contemporary Irish Literature
ENGL 342	Contemporary British Culture
ENGL 345	Early American Literature
ENGL 350	American Literary Renaissance
ENGL 355	Realistic Movements in American Literature
ENGL 360	American Literature of the Jazz Age
ENGL 365	Cold War Literature
ENGL 367	The Horror Novel
ENGL 378	Contemporary American Literature
ENGL 395	Literary Criticism
ENGL 480	Internship in English
ENGL 490	Honors Seminar
ENGL 499	Independent Study
ENGL 790	Washington Semester Journalism Seminar I
ENGL 791	Washington Semester Journalism Seminar II

English Education Major Auxiliary (9.000 credits)

WRIT 220	Rhetoric and Oral Communication	3 cr.
	Two semesters in the same foreign language including, American Sign Language.	6 cr.

In addition to these requirements, students must complete the Education Certificate. Please see the Education Department for specific requirements.

Requirements for the Minor, English (18.000 credits):

ENGL 101	Introduction to Literature	OR	
ENGL 190	Honors Great Books		3 cr.

At least 3 credits from 200-level course selected from the following: 3 cr.

ENGL 200	Survey of English Literature I
ENGL 205	Survey of English Literature II
ENGL 210	Women in Literature
ENGL 213	Survey of American Literature
ENGL 215	Sexuality in Literature
ENGL 220	Literature of the Environment
ENGL 222	Reading Film
ENGL 225	Comedy
ENGL 230	History of the English Language
ENGL 235	Science Fiction
ENGL 236	Adolescent Literature
ENGL 245	Early American Books and Maps
ENGL 250	The Drama
ENGL 253	The Short Story
ENGL 256	The Novel
ENGL 259	Poetry
ENGL 262	African American Literature
ENGL 265	Native American Literature
ENGL 268	Asian American Literature
ENGL 271	Latino/a Literature
ENGL 272	Literature of the War in Vietnam
ENGL 285	Topics in English

At least 3 credits from 300-level and above course selected from the following: 3 cr.

ENGL 300	Chaucer
ENGL 302	Shakespeare
ENGL 305	Elizabethan Literature

ENGL 310	English Renaissance Literature
ENGL 315	Literature of the Enlightenment
ENGL 320	Romantic Literature
ENGL 325	Victorian Literature
ENGL 330	Modern British Writers
ENGL 335	Irish Literary Revival
ENGL 340	Contemporary Irish Literature
ENGL 342	Contemporary British Culture
ENGL 345	Early American Literature
ENGL 350	American Literary Renaissance
ENGL 355	Realistic Movements in American Literature
ENGL 360	American Literature of the Jazz Age
ENGL 365	Cold War Literature
ENGL 367	The Horror Novel
ENGL 378	Contemporary American Literature
ENGL 395	Literary Criticism

English Electives (ENGL 200 to ENGL 499)

9 cr.

Requirements for the Minor, Writing and Communication (18.000 credits):

6 courses in Writing

18 cr.

Description of Courses

The English core requirement is satisfied with ENGL—101, ENGL—190, or transfer credit for literature courses. ENGL—101 (or ENGL—190) is a prerequisite for all of the ENGL courses. Transfer students may be allowed to satisfy the core requirement with Siena upper level literature courses. See English Honors Program section for additional listings.

ENGL—101. Introduction to Literature 3 credits

This course offers students practice in critical thinking, reading, responding to, and analyzing a wide variety of literature. Because the course is writing-intensive, students will gain experience in writing and revising critical essays about literature. Readings will include literature from diverse classic and contemporary authors, as well as various literary genres. (*Previously ENGL—011 Literary Perspectives*) (ATTR: ARTS, CDE)

ENGL—051. Greek Literature in Translation 3 credits

See CLSS—220 for course description. (ATTR: ARTS, CAL,CFH)

ENGL—055. Latin Literature in Translation 3 credits

See CLSS—225 for course description. (ATTR: ARTS, CAL, CFH)

ENGL—190. Great Books Seminar 3 credits

See description under English Honors Program listed below. (*Previously ENGL—090*)

ENGL—200. Survey of English Literature I 3 credits

An introduction to English literature from Beowulf to Swift, presented in cultural context, tracing the development of literary genres, such as the epic, the sonnet, and prose fiction. (ATTR: ARTS)

ENGL—205. Survey of English Literature II 3 credits

This course introduces students to English language prose, poetry, and other diverse forms of cultural expression of the Romantic, Victorian, Modern, and Contemporary periods. Students will analyze these works in the context of social, historical, and political changes that affected English and Anglophone literary production after the close of the eighteenth century. (ATTR: ARTS)

ENGL—210. Women in Literature 3 credits

This course is a study of women's various roles in literature from classical to modern times. Novels, short stories, poems, dramas, biographies and autobiographies across cultures and class emphasize the evolving image of women and the role of women as writers of literature. (Same as WSTU—210) (ATTR: ARTS, CAL, CFD, LTTT, WSTU)

ENGL—213. Survey of American Literature 3 credits

This course is an historical survey of American literature from the pre-colonial period through the twenty-first century. Covering a broad range of significant American authors, the course will examine writers within an historical and cultural context. (ATTR: AMSC, ALST, ARTS)

ENGL—215. Sexuality in Literature 3 credits

This course examines the treatment of sexuality in significant British and American literature. Readings include fiction, drama, and poetry that centers upon issues of sexuality such as censorship and freedom of expression, religion and sexuality, formations of heterosexuality and homosexuality, power and desire, social regulation of sexual expression, sexual violence, and AIDS. Authors may include: D.H. Lawrence, Jean Rhys, Margaret Atwood, Alice Walker, Peter Shaffer, Harvey Fierstein, James Baldwin and others. (Same as WSTU—215) (ATTR: ARTS, CAL, CFD, LTTP, WSTU)

ENGL—220. Literature and the Environment 3 credits

Beginning with Franciscan and philosophical perspectives on the natural world, this course moves to a consideration of the important role that wild nature – especially wilderness –has played in American culture, history, and art. Students are introduced to the long tradition of American nature writing, with an emphasis on Thoreau's *Walden*. Particular attention is then given to contemporary multicultural voices among environmental writers. The course includes nonfiction prose, poetry, and fiction. (Same as ENVA—220) (ATTR: ARTS, CFN, LTTP)

ENGL—222. Reading Film 3 credits

This course examines film as a textual form and attends to the formal and political dynamics of the history of film. By focusing on a director or a theme, students will learn how to analyze film and how to formulate arguments about film informed by cultural studies and film theory. The course will mostly be devoted to how we understand the textual elements of cinema: narrative, symbolism, characterization, and plot. However, it will also examine how that content is reflected in the technical formal elements of cinema: cinematography, mise en scene, editing, and sound. (ATTR: ARTS, FILM, LTTP)

ENGL—225. Comedy 3 credits

This course will explore the comic impulse in a range of literary genres and may include classical Greek modes, the Shakespearian tradition, as well as modern and contemporary versions. It will consider “comedy” in both of its typical meanings: (1) as a literary genre in which conflicts are successfully resolved through acts of reconciliation and harmony, and (2) as humor. The course will investigate the sometimes paradoxical relation between these two definitions. Some forms of comedy may not seem to us particularly funny, yet fulfill the traditional generic requirement of ending well. Other instances of the comic contain elements that make us laugh, but the overall effect may be distressing or disharmonious. The class will also consider comedy in relation to its traditional generic foil, tragedy, discovering perhaps a surprising number of connections between these two presumably opposite modes. While some discussions will focus on what comedy offers us in terms of understanding – or enduring – the human condition, the course will also examine the cultural and historical dynamics of comedy, including issues of economics and class, gender and sexuality, as well as race and region. Authors may include Aristophanes, Shakespeare, Austen, Wilde, and Heller. A number of films may also be analyzed. (ATTR: ARTS, LTTP)

ENGL—230. History of the English Language 3 credits

A survey of the development of the English language from its origins as an Indo-European dialect to modern British and American English. The course will also examine regional, ethnic, and national varieties of English as well as current social and political issues regarding contemporary English. (*Previously WRIT—230*) (ATTR: GSHU)

ENGL—235. Science Fiction 3 credits

This course will examine the category of literature usually designated as Science Fiction, SF, or Speculative Fiction. Science Fiction, in all its forms, is essentially a literature of ideas, in which the “facts” of current reality are altered in some way to answer the question “What if?” The course will consider these questions: How is Science Fiction defined? Where does Science Fiction begin? (With Verne and Wells, with Shelley's Frankenstein, or even earlier?) How is the literary category of Fantasy to be distinguished from Science Fiction? How do we evaluate the aesthetics of Science Fiction? Readings will include novels and short stories by authors such as H.G. Wells, Arthur C. Clarke, Isaac Asimov, Ursula LeGuin, Philip K. Dick, Octavia Butler, Samuel Delaney, William Gibson, and others. (ATTR: ARTS, CAL, LTTP, MINR)

ENGL—236. Adolescent Literature 3 credits

This course is designed for students pursuing the English/Education certificate. The main goal of the course is to familiarize students with the genre of adolescent literature. Students are required to write critical response papers and to lead class discussions. A final project, involving the creation of a literature unit appropriate for a middle school classroom, is required. (ATTR: ARTS, LTTP)

ENGL—245. Early American Books and Maps (1500-1820) 3 credits

Early American Books and Maps examines the parallels between the origins and developments of the American literary traditions and the new techniques in cartography, the art and science of map and chart making, both which reflected the period of European expansion through the establishment of the Early American Republic. (ATTR: ARTS, AMSC, ASLT, CFN, LTAM, LTBA, LTTP, REB)

ENGL—250. The Drama 3 credits

A study of representative dramatic types designed to increase appreciation of the drama as literature. Attention is paid to the historical development of the genre. (ATTR: ARTS, CAL, CFH)

ENGL—253. The Short Story 3 credits

This course examines the short story as a distinct, culturally diverse literary genre. By reading a variety of short fiction, students will learn the history, the artistry, and the versatility of the genre. Special emphasis will be given to critical reading and writing skills. (ATTR: ARTS, CAL, CFD,)

ENGL—256. The Novel 3 credits

A study of selected novels designed to increase appreciation of the genre. Works from the nineteenth century to the present will be read with emphasis placed on the techniques and purposes of the authors. (ATTR: ARTS, CAL, CFH)

ENGL—259. Poetry 3 credits

An introduction into the nature of poetic experience. Technical and structural factors of poetry will be studied in order to deepen appreciation of the genre. (ATTR: ARTS, CAL)

ENGL—262. African American Literature 3 credits

This course is an historical survey of African American literature which introduces students to a broad range of significant writers in the genres of poetry, prose, autobiography, fiction and drama. (*Previously ENGL—370*)(ATTR: ARTS, CAL, CFJ, LTAM, MULT, LTIB)

ENGL—265. Native American Literature 3 credits

This course surveys Native American creation myths, oral history, poetry and prose by such authors as Black Elk, N. Scott Momaday, Louise Erdrich, James Welch, Leslie Marmon Silko, Sherman Alexie and Linda Hogan. Students will study the literature within its cultural and historical context. The course may include films, guest lectures and a field trip. (*Previously ENGL—372*)(ATTR: ARTS, MULT, ALST, AMSC)

ENGL—268. Asian American Literature 3 credits

This course surveys the development of Asian American literature within the context of different Asian and Asian American cultural and historical traditions, and dominant American literary, racial, and political discourses. Students will read a wide array of literary, theoretical, and critical works by Asian American writers. Same as MULT—345. (*Previously ENGL—374*) (ATTR: ARTS, CAL, CFD, AMSC, ALST, LTAM, MULT)

ENGL—271. Latino/a Literature 3 credits

This course surveys Latino/a literature written in English. Students will be introduced to Latino/a poetry, fiction, drama and nonfiction prose. Latino/a literature will be examined within the context of American literature, and as a unique literary movement. Attention will be given to historical and social contexts and their impacts upon Latino/a literary tradition. Same as MULT—335. (*Previously ENGL—376*) (ATTR: ARTS, CAL, AMSC, ALST, LTAM, MULT, CFD)

ENGL—272. Literature of the War in Vietnam 3 credits

This course will examine the American War in Vietnam (1965-1975) through major literary works written by both American and Vietnamese authors. Emphasis is placed on situating the literature within the historical context. (*Previously ENGL—368*) (ATTR: AMSC, ARTS, ALST, CAL, LTAM, MCCP)

ENGL—285. Topics in English 3 credits

This course will explore literary topics not normally treated in regular English courses. Specific topics will be announced during the semester previous to that in which the course will be offered. May be taken twice with different topics. An additional fee may be required, depending on the topic offered. (ATTR: ARTS, LTTP)

ENGL—300. Chaucer 3 credits

An in-depth study of Chaucer's major work, *The Canterbury Tales*, along with selections from his other works. The literature will be discussed in the context of important issues of medieval times: the growing middle class, the position of women, the aftermath of war and plague, religious crisis and reform. All readings will be in Middle English. (ATTR: ARTS, LTBA, LTIB, MRST)

ENGL—302. Shakespeare 3 credits

A study of several major Shakespearean plays. The works will be analyzed against the background of Shakespeare's life and times. (*Previously ENGL—240*) (ATTR: ARTS, LTBA, LTIB, MRST)

ENGL—305. Elizabethan Literature 3 credits

Students will explore compelling issues of the era of Queen Elizabeth I such as: images of the self, the myth of the Golden Age, and the controversy over gender roles. Readings will be selected from writers such as Sir Thomas More, Edmund Spenser, Philip and Mary Sidney, and Queen Elizabeth. (ATTR: ARTS, CAL, LTBA, LTIB)

ENGL—310. English Renaissance Literature 3 credits

Students will explore compelling issues of the era such as: magic, science, and witchcraft; the New World; the African slave trade; early feminism; and the struggle for religious, political, and social freedom. Readings will be selected from writers such as John Donne, George Herbert, Aemilia Lanyer, John Milton, and Mary Wroth. (ATTR: ARTS, CAL, LTBA, LTIB, REB)

ENGL—315. Literature of the Enlightenment 3 credits

This survey of the poets and prose writers of the neo-classical movement may include the works of Dryden, Swift, Pope, Johnson, and Boswell, and one or two novelists of the period. (ATTR: ARTS, LTBA, LTIB, REB)

ENGL—320. Romantic Literature 3 credits

This course examines English language literature and culture from the late eighteenth to early nineteenth centuries, and allows students to explore themes related to this time of revolutionary change and political and social upheaval. Bracketed by the end of the Enlightenment, as well as the French Revolution, and the start of the Victorian Era, the Romantic period witnessed the emergence of new literary approaches that emphasized nature, the individual, and the imagination. Works by authors such as Austen, Baillie, Blake, Byron, Coleridge, Keats, the Shelleys, and Wordsworth may be included. (ATTR: ARTS, LTBA, LTIB)

ENGL—325. Victorian Literature 3 credits

This course examines English literature from the 1830s to the turn of the 20th century. Through critical reading and writing assignments, students will explore such themes as Industrialization, the Impact of Empire, Self and Society, Childhood, and the Role of Women. Works by such authors as Tennyson, Elizabeth Barrett Browning and Robert Browning, Dickens, Lewis Carroll, Wilde, and the Brontes will be included. (ATTR: ARTS, LTIB)

ENGL—330. Modern British Writers 3 credits

This course considers the evolution of British literature in the early to mid-20th century in the wake of a collapsing Empire and two World Wars. The innovative, experimental modes of expression of Modernism, disillusionment with Victorian values, changing attitudes toward gender and sexuality, and the redefinition of British identity will be explored through such writers as Conrad, Lawrence, Woolf, Mansfield, West, Ford, and Maugham. (ATTR: ARTS, LTIB)

ENGL—335. Irish Literary Revival 3 credits

An exploration of the controversial movement that sought to affirm a uniquely Irish culture through reviving Irish myth, encouraging the use of the Irish language, and founding an Irish national theater. Beginning with the catastrophic Potato Famine in the mid-1880s, the course will examine Irish writers' attempts to carve out an independent cultural niche in the late 19th and early 20th centuries. Writers to be considered will include W.B. Yeats, Lady Gregory, J.M. Synge, Sean O'Casey, and James Joyce, and issues of the changing roles and representation of Irish women as well as the imaginative construction of an Irish nation will be addressed. (ATTR: ARTS, LTIB)

ENGL—340. Contemporary Irish Literature 3 credits

This course considers recent Irish writing in the context of the historical, political, religious, economic, and cultural influences that have shaped that literature. Readings will be drawn from a variety of backgrounds and genres, and may include works by William Trevor, Conor McPherson, Eavan Boland, Nuala Ní Dhomhnaill, and Brian Friel. (ATTR: ARTS, LTIB)

ENGL—342. Contemporary British Culture 3 credits

This course examines British culture from the postmodern and contemporary era. By drawing on historic, political, and aesthetic concerns, this class may consider multiple genres of literature, but also emphasize how other arts shape what it means to have a British identity. Film, visual arts, popular music, and other cultural productions may be studied as primary or secondary sources in order to bolster a broader sense of how to understand the role of Britishness in the contemporary world. Readings will be taken from a variety of backgrounds and may include authors from the United Kingdom or Anglophone writers who reflect on the sordid legacy of the British Empire. (ATTR: ARTS, LTIB)

ENGL—345. Early American Literature: Encounters, Enlightenment and Election (1500-1820) 3 credits

Early American Literature examines the origins and developments of the American literary traditions from the period of European expansion through the establishment of the early American republic. Students may read authors such as Bradford, Jefferson, Knight, Sedgwick, Cooper, Adams, Rowson, and Brown. (ATTR: ARTS, AMSC, LTAM, LTBA, REB)

ENGL—350. American Renaissance Literature: Solitude and Society (1820-1865) 3 credits

American Renaissance Literature examines the emergence of the American narrative, the American character, and the development of the Transcendentalist and Romantic literary movements. Close attention will also be paid to abolitionist writing, slave narrative, and the establishment of the American woman writer against the background of the expanding nation. Students may study such authors as Irving, Cooper, Jacobs, Emerson, Thoreau, Hawthorne, Poe, Fuller, Fern, Stowe, Douglas, Melville, Sedgwick, Whitman, or Kirkland. (ATTR: ARTS, ALST, AMSC, LTBA, LTAM)

ENGL—355. Realistic Movements in American Literature: Realism, Regionalism, and Naturalism (1865-1915) 3 credits

This course examines the development of the realistic impulse in America from the close of the Civil War to WW I. Texts will be examined within the context of the American transformation from an agrarian republic to an industrial world power. Students may read authors such as Twain, James, Chopin, Jewett, Freeman, Crane, Wharton, Zitkala Sa, Sui Sin Far, Harper, Dreiser, and Norris. (ATTR: ARTS, ALST, AMSC, LTAM)

ENGL—360. American Literature of the Jazz Age 3 credits

This course will examine literary works written primarily during the 1920s, a period of intense cultural freedom as well as restraint within the United States. On the one hand, this was the heyday of flappers and speakeasies; on the other hand, the Jazz Age was darkened by the historical trauma of the First World War as well as the economic hardships of The Crash of 1929 and the impending Great Depression. We will discuss the contributions of the "Lost Generation" of American expatriate authors in Paris and witness the cultural flowering of the Harlem Renaissance. Readings may include fiction by Willa Cather, F. Scott Fitzgerald, Ernest Hemingway, and William Faulkner; poetry by Gertrude Stein, T. S. Eliot, Countee Cullen, Langston Hughes, and e.e. cummings; and drama by Eugene O'Neill. To give a fuller sense of both the era and its literature, we may also explore other cultural media of the "Roaring Twenties," such as experimental painting, silent film, blues music, and of course jazz. (ATTR: ARTS, ALST, AMSC, LTAM)

ENGL—365. Cold War Literature and Culture 3 credits

This course examines American literature and culture of the Cold War era (1945-1989). The Cold War was a period of American prosperity, but it was also an era of communist "witch hunts," racial strife, war protests, persistent gender inequality, and general anxieties about nuclear disaster, individual liberty, and suburban conformity. In this course, we will explore how writers responded to this fraught historical period. We will examine literary works and other cultural texts (such as films, advertisements, theoretical and historical documents) that break down the boundaries between art, popular culture, and politics. Reading selections will vary, but may include works by: John Barth, Don DeLillo, Philip K. Dick, Allen Ginsberg, Joseph Heller, Ken Kesey, Grace Paley, Sylvia Plath, Thomas Pynchon, Ishmael Reed, Adrienne Rich, J.D. Salinger, Anne Sexton, Kurt Vonnegut, Alice Walker, and Richard Yates. (ATTR: AMSC, ARTS, ASLT, LTAM)

ENGL—367. The Horror Novel 3 credits

In this course Students will study a specific genre of fiction: the horror novel. The horror novel as a genre first appeared in English-Language literature in the late eighteenth century, and has unfolded in many permutations through the twenty-first century. Readings for this course may span the two hundred plus years of this genre, and/or take a thematic approach. Students will study the distinction between “horror” and “terror” and discuss the “gothic” and the figure of the “monster” all in conjunction with literary analyses. Works by authors such as Matthew “Monk” Lewis, Ann Radcliffe, Bram Stoker, Shirley Jackson, Anne Rice, Thomas Harris, and Stephen King may be included in the course. (ATTR: ARTS, LTTP)

ENGL—378. Contemporary American Literature 3 credits

This is a multi-genre survey of American literature produced in the contemporary period (1980s to the present). We will examine literary texts in their historical, social and aesthetic contexts, exploring the various ways American literature responds to the complexities of race, class, gender, and sexuality in contemporary society. In part, this means thinking about American literature in an increasingly postmodern, multicultural, global context. Course readings will draw from a diverse range of contemporary American authors. Reading selections will vary, but could include works by: Sherman Alexie, T.C. Boyle, Raymond Carver, Junot Diaz, Don DeLillo, Louise Erdrich, Jeffrey Eugenides, Jonathan Franzen, Jorie Graham, Gish Jen, Edward P. Jones, Jhumpa Lahiri, Chang-rae Lee, Cormac McCarthy, Toni Morrison, Sharon Olds, Philip Roth, Kay Ryan, Paula Vogel, and August Wilson. (ATTR: AMSC, ARTS, ASLT, LTAM)

ENGL—395. Literary Criticism 3 credits

This course offers students an opportunity to examine literary theory in detail and to apply it to selected texts. Students may study a range of critical approaches, such as New Historicism, Postcolonial theory, and Cultural Studies. Prerequisite: 12 hours of ENGL credits. Permission of instructor required. (*Previously ENGL—400*) (ATTR: ARTS)

ENGL—480. Internship in English 1 - 3 credits

This course enables students to earn academic credit while gaining work experience in broadcast and print media, public relations, and other communications fields. Interns must complete 120 hours of on-site work as well as fulfilling the academic components of the course, including regular written assignments. Evaluation will be conducted by the Department Internship Director in consultation with the worksite supervisor. The internship is open to Junior and Senior English majors and minors or Writing minors who have completed at least 12 hours in English and/or Writing and have an index of at least 3.0 in those courses. Permission of the Internship Director is required for admission to the course. (Same as WRIT—480.) (ATTR: ARTS, INT)

ENGL—498. English in the World 3 credits

An intensive examination of topics relevant to advanced literary studies and writing in the workplace. Provides culminating experience through reflection upon and revision of previous English and Writing coursework. Students must effectively articulate the meaning of their Siena College English degree in the world. Students will actively engage in and/or pursue a specific path, be it for their education, employment, or service opportunities. (ATTR: ARTS)

ENGL—499. Independent Study 1 - 3 credits

Students may design a course of study in consultation with a faculty member. This topic, including bibliography, must be submitted in writing and approved by the professor and the department chair. May be repeated twice with different topics, for up to 6 credits. (ATTR: ARTS)

ENGL—790. Washington Semester Journalism Seminar I 4 credits

The Washington Journalism Semester provides a seminar which offers an intensive scrutiny of the gathering and presentation of news. Reporters, news executives, news sources, and others share their ideas and experiences. Students study the workings of large and small newspapers and broadcast news bureaus. Meetings are generally four to six times per week and may be held at field sites as well as on campus. (See: ATDV—789) (ATTR: ARTS)

ENGL—791. Washington Semester Journalism Seminar II 4 credits

This is a correlated course to the work being carried on in ENGL—790. (See: ATDV—789) (ATTR: ARTS)

English Honors Program

Permission of the instructor is required prior to enrolling in any Honors Seminar. The topics vary from year to year, which allows the student to repeat Honors courses with different subject matter.

ENGL—190. Great Books Seminar 3 credits

This is a student-centered course, designed for those who seek an intellectually exciting, collaborative learning experience. Instruction is conducted in seminar format, with students encouraged to take an active role in determining the direction of the class. Students will meet weekly to discuss classic literary works of the Western tradition, such as Homer's *Odyssey* and Shakespeare's *Much Ado about Nothing*, as well as contemporary multicultural works. (Previously ENGL—090) (ATTR: ARTS, CDE, HNRS)

Writing Courses

WRIT—100. Rhetoric and Writing 3 credits

WRIT-100 asks students to critique and analyze the methods and motives of other academic writers. Introducing students to basic rhetorical theories and concepts, this course is designed to help students to write effectively for the college academic community, which involves demonstrating critical reading, thinking, researching, and writing skills. The purpose of this course is to help students become familiar with the dominant conventions and expectations of academic argumentation and to assist them in writing persuasive academic prose. No exam. (ATTR: ARTS, WRIT)

WRIT—110. Introduction to Creative Writing 3 credits

Introduction to Creative Writing is the first course in the creative writing sequence at Siena and is intended for students with little to no experience with creative writing. This course will introduce students to the basics of writing poetry, fiction, and creative nonfiction and will prepare students for further study in these three genres. This class will feature a great deal of in-class writing exercises, and students should be prepared to write in class and share what they've written out loud for critique. There is a workshop component to this class, and students should expect to share their creative work with their classmates throughout the semester. Students should also be prepared to study and analyze contemporary published poetry, fiction, and creative nonfiction and to respond to these readings with short critical responses. (ATTR: ARTS, NOEX, WRIT)

WRIT—200. Advanced Rhetoric and Writing 3 credits

Rhetoric is the study and art of persuasion: understanding how "texts" are constructed to persuade specific audiences to think or believe a certain way. Speeches and essays are rhetorical "texts" for sure, but advertisements, films, music, and art can be defined similarly. In WRIT-200, students will be asked to critique and analyze rhetorical "texts" that extend beyond written modes of persuasion. The purpose of this course is to help students become familiar with the role of context, audience, and purpose in the creation of a variety of rhetorical texts. No exam. (ATTR: ARTS, WRIT)

WRIT—220. Rhetoric and Oral Communication 3 credits

WRIT-220 is designed to help students gain confidence and fluency in communicating arguments orally. Introducing students to basic theories and concepts of public speaking, this course explores how verbal and nonverbal communication impacts the rhetorical effectiveness of public speakers. Students will critique, analyze, compose, and perform original persuasive speeches. No exam. (ATTR: ARTS, WRIT)

WRIT—240. Peer Tutoring in Writing 3 credits

The purpose of this course is to teach students how to tutor others in writing. The major emphasis of the course is on writing: analyzing your own writing processes while learning to talk to others about theirs. This course is required for anyone who wants to be a Writing Center tutor.

WRIT—250. Writing Poetry 3 credits

This course will use peer evaluations and the traditional writing workshop to foster student skills in writing poetry. Students are required to distribute poems they have written to the class for critique and group evaluation. Poetic theory and technique will be examined, and the works of contemporary poets will be studied. Students will be introduced to the art of writing contemporary poetry. (ATTR: ARTS, WRIT)

WRIT—260. Writing Short Fiction 3 credits

This course will use peer evaluation and the traditional writing workshop to foster student skills in writing short fiction. Students are required to distribute stories they have written to class for critique and group evaluation. The works of contemporary writers will be studied with an eye toward formal concerns and techniques. Students will be introduced to the art of contemporary short fiction writing. (ATTR: ARTS, WRIT)

WRIT—270. Writing Creative Nonfiction 3 credits

In Writing Creative Nonfiction we'll explore how to artfully write and shape true stories. Often, we'll rely on the tools associated with fiction writing and consider craft elements such as characterization, setting, description,

and use of figurative language as we write about real events and people. Topics we'll examine include the challenge of turning oneself into a character in an essay, the ethics of creative nonfiction, how to write about what we don't remember, recreating conversations, and writing about family and friends. We will read and write various types of essays including memoir, the personal essay, the lyric essay, the nature essay, and the graphic essay. Assignments include three essays and many shorter craft exercises. Students will also be responsible for analytical responses to published work. There will be a workshop component to this course, and students are expected to share their work with classmates and engage in peer review. (ATTR: ARTS, NOEX, WRIT)

WRIT—320. Journalistic Writing 3 credits

An introduction to the basic techniques of journalistic writing. Among the areas covered are: conducting interviews, researching news stories, examining categories of journalistic writing, journalistic ethics. (ATTR: ARTS, WRIT)

WRIT—350. Rhetoric(s) of Hip-Hop Culture 3 credits

WRIT 350 is a writing course that focuses on rhetorical theory in popular culture, such as the role of context, audience, and purpose in the creation of written and visual arguments. Students employ the language of rhetorical analysis in locating and critiquing argumentative trends found within hip-hop music, movies, fashion, and other observable aspects of hip-hop identity. (ATTR: ARTS, WRIT)

WRIT—390. Topics in Writing 3 credits

This course will explore writing topics not usually offered as part of the regular curriculum. Specific topics will be announced during the semester previous to the one in which the course will be offered. The course may be taken twice with different topics. (ATTR: ARTS, WRIT)

WRIT—480. Internship in Writing 1 - 3 credits

See ENGL—480 for course description. (ATTR: ARTS, INT)

WRIT—499. Independent Study 1- 3 credits

Students may design a course of study in consultation with a faculty member. This topic, including a bibliography, must be submitted in writing and approved by the professor and the department chair. May be repeated twice with different topics, for up to 6 credits. (ATTR: ARTS, WRIT)

Health Studies Department

Dr. Duane Matcha, Director

Track Coordinators:

Dr. Elizabeth Brookins, Health Science Track

Joseph Fitzgerald, M.P.A. - Health Administration Track

Dr. Duane Matcha - Health Policy Track

The health care field is vast and diverse. The B.A. in Health Studies represents a truly interdisciplinary experience for students at Siena College. All students in the Health Studies major are required to take courses from the schools of Business, Science and the Liberal Arts. The core curriculum provides an overview of critical science, policy and administrative disciplines. Additional coursework includes completion of two semesters of biology and two semesters of chemistry. The core feature of the Health Studies major is that in addition to a broad range of core courses, it also enables students to gain valuable depth in one of the three critical health studies tracks that align with broader interests and opportunities in the health care community. Each track requires the completion of 21 credit hours (possibly 22 in the Health Science Track). In the spring of their senior year, students from all three tracks will work together on a capstone project, utilizing the skills and knowledge gained within each of their tracks to solve a current health care issue.

The minors in Health Studies and Health Services Administration are offered as a result of diverse interests in the health care industry today. This program provides students, regardless of major, with a cohesive core of courses that focus on significant aspects of health care issues in American society. These courses are not meant to serve as a major, but rather as an area of knowledge within the broader framework of health. As students decide upon careers, such knowledge is beneficial. The program can assist students if they decide upon a career path within some aspect of the broad field of health. Such career paths include, but are not limited to, work in medicine, nursing, public health, hospital administration, epidemiology, insurance, health research, marketing, health finance, health policy and management, medical sociology, and medical social work. Many of these paths require advanced degrees. However, the minors also benefit students who have decided upon career paths that do not include an advanced degree by making them a more marketable candidate to the work world.

*BIOL 110 does not count towards the Health Care Minor for Biology or Biochemistry Majors. Students majoring in Biology or Biochemistry do not need to complete another Biology course for the Health Studies or Health Services Administration minor. Students should contact the Assistant Dean in the School of Liberal Arts office for a Substitution/Waiver authorization form. Science courses from students' auxiliary credits can be counted towards the Biology requirement in the Health Studies and Health Services Administration minors.

Requirements for the Major, Health Studies (83.000-86.000 credits)

15-16 of these credits may also count towards the Siena Core Requirements.

Economics and Political Science:

ECON 101	Principles of Economics, Micro	3 cr.
POSC 100	Contemporary U.S. Politics	3 cr.

Ethics Course: *Students must choose one of the following courses.*

PHIL 210	Ethics*	OR	
PHIL 315	Ethics of Science and Technology*	OR	
RELG 260	Religion and Moral Decision*	OR	
RELG 360	Morals and Medicine*		3 cr.

**Courses in the Ethics section may fulfill the CFJ core requirement.*

Health Based Courses:

CLSS 275	Medical Terminology	3 cr.
HLTH 001	Gateway to Health Studies	1 cr.
HLTH 101	Introduction to Global Health	3 cr.
HLTH 205	Nutrition and Public Health	3 cr.
HLTH 450	Seminar in Health Studies	3 cr.
NURS 408	Health Policy in Nursing Practice	2 cr.
SOCI 370	Medical Sociology	3 cr.
SWRK 454	Health Care Communication Skills	3 cr.

Psychology Courses:

PSYC 100	General Psychology*	3 cr.
PSYC 230	Lifespan Development	3 cr.

**PSYC 100, General Psychology, may fulfill the CDS requirement.*

Religious Studies Courses:

RELG 101	Religion in Western Culture*	OR	3 cr.
RELG 121	Introduction to Biblical Studies*	OR	3 cr.
RELG 141	An Introduction to Religious Thought*	OR	3 cr.
RELG 181	Experiences of the Sacred		3 cr.

**Courses in the Religious Studies section may fulfill the CDR core requirement.*

Science Foundation:

BIOL 110	General Biology I	4 cr.
BIOL 120	General Biology II	4 cr.
CHEM 110	General Chemistry I*	4 cr.
CHEM 120	General Chemistry II	4 cr.

**CHEM 110, General Chemistry I, may fulfill the CDN requirement.*

Sociology Courses:

SOCI 101	The Sociological Perspective	3 cr.
SOCI 304	Research Methods I	3 cr.
SOCI 315	Social Epidemiology	3 cr.

Statistical Course: *Students must choose one of the following courses.*

ATDV 110	Statistics for Social Sciences*	OR	
QBUS 200	Business Statistics I	OR	
MATH 275	Introductory Statistics with Computation	OR	
MATH 371	Probability for Statistics		3 cr.

**ATDV 110, Statistics for Social Sciences, may fulfill the CDQ requirement.*

Track Courses:

In addition to the core requirements, all students enrolled in the Health Studies major must pick one of the three tracks below. These tracks are intended to provide students with an extensive knowledge base of health and health care from that perspective. Each track and appropriate coursework are identified below.

Health Administration Track	OR	
Health Science Track	OR	
Health Policy Track		19-22 cr.

Health Administration Track

The Health Administration track prepares students for management and leadership positions in a variety of organizations that support or provide health care services. Graduates of this track will be able to pursue careers in the management of health care facilities, physician-practice organizations, pharmaceutical organizations, health insurance/financing entities, home care, elder care, and disability services, as well as in health-related government oversight agencies. Graduates interested in further pursuing their education could pursue graduate programs including Master of Public Administration, Master of Public Health, Master of Business Administration, as well as other degrees and certificate programs related to Non-Profit Organization Management.

Requirements for the Health Administration Track (19.000-21.000 credits):

MGMT 211	Management	3 cr.
SCDV 220	Healthcare Informatics	3 cr.
MGMT 345	Healthcare Management	3 cr.
MGMT 230	Project Management	3 cr.
MGMT 332	Human Resource Management	3 cr.
POSC 265	Public Policy	3 cr.
HLTH 350	Selected Topics in Health Administration	1-3 cr.

Health Science Track

The Health Studies Science track is an interdisciplinary pre-professional major that prepares students for numerous career paths in the health care field. The science track is designed to allow students to gain a deep knowledge base along with a variety of perspectives to bring to a career in health care. Students will take courses in a multitude of areas – including science, humanities, ethics, global health, sociology, and more. Health Studies-Science major is a rigorous course of study to provide students with a solid academic background in a pre-health professional program. Graduates would have options to pursue employment in health-related positions or further their education for a career with direct or indirect patient care. Completion of this major will prepare students for graduate level studies in health professions, primarily in the allied health fields. Students interested in becoming allied health care professionals would continue their education at graduate level programs such as Physician's Assistant, Physical Therapy, Occupational Therapy. Additional areas of interest for graduates may be in the fields of Public Health and Nutrition.

Requirements for the Health Science Track (21.000-22.000 credits):

BIOL 195	Health Studies Microbiology	4 cr.
SCDV 210	Anatomy and Physiology I	4 cr.
SCDV 211	Anatomy and Physiology II	4 cr.
	Upper-level Science Elective	3-4 cr.
SCDV 220	Healthcare Informatics	3 cr.
HLTH 360	Selected Topics in Health Science	3 cr.

Health Policy Track

The Health Policy track prepares students for a multiplicity of career paths. Students interested in furthering their education could pursue graduate programs such as the MPH (Masters in Public Health) and focus on areas such as epidemiology, or health policy. Students could also pursue graduate degrees in Sociology or Political Science. Doing so would open students to opportunities in academia, federal or state government offices that address health-related issues. These could range from aging-related issues to community health concerns. Students could also pursue employment opportunities with international organizations involved in providing health related services. Students with an undergraduate degree could pursue employment opportunities with non-profit organizations dedicated to serving under-represented populations as well as local governmental agencies. Here, programs that highlight the interconnection between economic well-being and health would allow students to demonstrate their mastery of analytic skills and their knowledge of public policy implications.

Requirements for the Health Policy Track (21.000 credits):

SCDV 220	Healthcare Informatics	3 cr.
POSC 362	Refugee and Migration Studies	3 cr.
SOCI 240	Growing Older in a Global Environment	3 cr.
POSC 265	Public Policy	3 cr.
SOCI 376	Health Care in the Developing World	3 cr.
SOCI 375	Health Care in the Developed World	3 cr.
HLTH 355	Selected Topics in the Care of Diverse Populations	3 cr.

Requirements for the Minor, Health Studies (18.000 credits)

SOCI 375 - Health Care in the Developed World	3 cr.
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Students must take 4 courses with HSMR attribute from: 12 cr.

SOCI 240 – Growing Older in a Global Environment
SOCI 376 – Health Care in the Developing World
SOCI 370 – Medical Sociology
SOCI 490 - Seminar in Sociology (When Appropriate)
PSYC 225 - Health Psychology
PSYC 345 - Drugs and Human Behavior
POSC 260 - Public Administration
POSC 265 - Public Policy
PHIL 210 - Ethics
SOCI 376 – Health Care in the Developing World
SPAN 250 – Medical Spanish
SWRK 452 - Social Work Practice: Drugs and Alcohol
SWRK 453 – The Wheel of Life: Perspectives on Loss & Grief
RELG 360 - Morals and Medicine
ECON 325 - Health Economics

Student must successfully complete one of the following: 3 cr.

BIOL 020 - Topics in Human Biology
BIOL 110 - General Biology I
BIOL 140 - Gen Biology for Social Science

Requirements for the Minor, Health Services Administration (18.000 credits):

SOCI 375 - Health Care in the Developed World	3 cr.
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Student must successfully complete one of the following: 3 cr.

BIOL 020 - Topics in Human Biology
BIOL 110 - General Biology I
BIOL 140 - Gen Biology for Social Science

PHIL 210 - Ethics
RELG 360 - Morals and Medicine **OR** 3 cr.

FINC 341 - Life and Health Insurance
MGMT 332 - Human Resources Management **OR** 3 cr.

Student must successfully complete two of the following: 6 cr.

POSC 265 - Public Policy
FINC 422 - Public Finance
BLAW 200 - Legal Environment of Business

Students interested in the Health Studies Major or Minor should contact Dr. Duane A. Matcha (Rosetti Hall 325), call (518) 783-2944 or email matcha@siena.edu. Students interested in the Health Services Administration Minor should contact Assistant Dean of Business (Siena Hall 301) or call (518) 783-2321.

Description of Courses

HLTH—001. Gateway to Health Studies. 1 credits

Gateway to Health Studies is an introduction to the various disciplines and tracks within the healthcare field, with emphasis on careers and hot topics in health studies. In particular, students will be introduced to the principles and vocabulary used in the study and practice of health sciences, health policy and health care administration. This class provides students with the opportunity to begin to develop some of the foundational skills (communication, critical thinking and problem solving) that are important learning outcomes for the Health Studies major. Further, it provides students with an introduction to engagement activities (undergraduate research, service, and experiential learning) that will help position students for the future. (ATTR: ARTS, HLTH)

HLTH—101. Introduction to Global Health. 3 credits

This course explores the factors that explain the unequal distribution of health and disease in the world. Students will receive an overview of global health issues through examination of major determinants of health and key areas of disease burden. Students will be introduced to the interrelationships of economic, political, social, and environmental factors that affect the health of populations globally. Students will also examine global health interventions to understand what programs work and why. (ATTR: ARTS, HLTH)

HLTH—205. Nutrition and Public Health. 3 credits

This course covers the field of Nutrition in the context of Public Health. Students will learn about the chemistry and biological action of nutrients and how health policies seek to promote optimal nutritional health for both individuals and whole populations. Course activities will allow students to improve their science literacy, critical thinking, and communication skills by applying what they learn to current issues and events. This course is required for all Health Studies majors. Prerequisites: BIOL—110. (ATTR: ARTS, HLTH)

HLTH—350. Selected Topics in Health Administration. 1-3 credits

This course will cover a selected topic at an intermediate level. This course may be taken multiple times with different topics. Prerequisites: MGMT—211. (ATTR: ARTS, HLTH)

HLTH—355. Selected Topics in THE Care of Diverse Population. 3 credits

This course will cover a selected topic at an intermediate level. This course may be taken multiple times with different topics. (ATTR: ARTS, HLTH)

HLTH—360. Selected Topics in Health Sciences. 3 credits

This course will cover a selected topic at an intermediate level. Topics to include but not limited to anatomy and physiology, aging, women, children, complementary and alternative approaches to health and an upper level nutrition course. Course may be repeated up to two times. Prerequisites: BIOL—110. (ATTR: ARTS)

HLTH—450. Seminar in Health Studies. 3 credits

This capstone course is designed to give the student the opportunity to assimilate the knowledge learned in the Health Studies core curriculum. The student engages in case study assignments that reflect application, synthesis and evaluation of concepts and issues that have been studied throughout the Health Studies program. Current issues in healthcare will be explored using case studies drawn from the fields of health sciences, administration and policy. This is a multidisciplinary course, emphasizing problem solving, communication, teamwork, leadership and moral consideration. The course will be taught by professors from a variety of disciplines, but always with an emphasis on interprofessional collaboration and integration. Prerequisites: All Health Studies Core Courses. Permission of instructor required. (ATTR: ARTS, HLTH)

History Department

Chair: Fr. Daniel Dwyer, O.F.M., Assoc. Prof.
Prof.: Dr. Bruce W. Eelman, Dr. Karen W. Mahar, Dr. Wendy Pojmann
Assoc. Prof.: Dr. Jennifer H. Dorsey, Dr. Robert Nii Nartey
Asst. Prof.: Dr. Tim Cooper, Dr. Karen Sonnelitter

The Department of History introduces students to richness, complexity and diversity of the human past. The study of history stimulates intellectual curiosity and demands careful scholarship and reasoned argument. At Siena, history majors gain purposeful, mission-driven hands-on experience that equips them with skills valued by employers and graduate programs. History majors craft research questions, judge sources, contextualize accounts, analyze data, synthesize scholarship, and effectively communicate findings. The intellectual and technical skills of Siena history graduates prepare them for graduate work and careers in business, government, law, higher education, nonprofits, journalism, NGOs, public history, secondary education, and administration. To accomplish these purposes, students are offered a wide variety of courses as well as specialized colloquia, honors seminars, and independent study. In addition, each history major is required to complete three credit hours of coursework with the attribute EXPH (Experiential History). This “hands-on history” requirement might mean intensive archival research, interviewing oral history subjects, teaching a class, interning at a historic site, delivering original scholarship at a conference, exploring history on international trips, or digitizing documents.

History Honors Program: Students with high academic achievement, regardless of their major, are invited to participate in Honors seminars. Students who maintain a cumulative index of 3.3 and complete a minimum of four Honors seminars with a B+ average will be eligible for a certificate of Honors in History upon graduation. Admission to the seminars is by permission of the instructor.

High school students who score 4 or better on Advanced Placement tests shall receive 3 credits towards equivalent courses: AP World History shall be considered equivalent to HIST—102, AP Modern European history shall be considered equivalent to HIST—103, AP American History shall be considered equivalent to either HIST—104 or HIST 105.

Requirements for the Major, B.A. in History (39.000 credits):

Students must earn 6 credits from the following 100 level courses: 6 cr.

HIST 101 Shaping of the Contemporary World **OR**
HIST 190 Honors World History

HIST 102 The West and the World to 1500
HIST 103 The West and the World 1500-1900
HIST104 America in the World, 1596-1877
HIST 105 America in the World, 1877-2001

Students must earn 6 credits in **each** of the following areas from courses at the 200-level or above:

European History (HEUR) 6 cr.
non-Western History (HNW) 6 cr.
American History (HAM) 6 cr.

History Electives (HIST 300 – HIST 495) 9 cr.
HIST 497 Proseminar 3 cr.
HIST 499 History Capstone 3 cr.

Auxiliary (9.000 credits)

Two semesters in the same foreign language* 6 cr.
*American Sign Language does **not** fulfill this requirement.

In addition, students must complete 3 credits of Experiential History (EXPH)** 3 cr.
**EXPH course counts for both the History major and major auxiliary requirement.

Requirements for the Minor, History (18.000 credits):

Students must earn 3 credits from the following 100 level courses: 3 cr.

HIST 101 Shaping of the Contemporary World **OR**
 HIST 190 Honors World History

HIST 102 The West and the World to 1500
 HIST 103 The West and the World 1500-1900
 HIST104 America in the World, 1596-1877
 HIST 105 America in the World, 1877-2001

Students must earn 6 credits in **one** of the following areas from courses at the 200-level or above:

European History (HEUR)
 non-Western History (HNW)
 American History (HAM) 6 cr.

History Electives 9 cr.

Requirements for the Major, B.A. in History with Certificate in Social Studies Teaching (39.000 credits)

History majors seeking initial teaching certification in grades 7-12 will need to maintain at least a 3.1 in History as well as an overall GPA of 2.9.

HIST 101 Shaping of the Contemporary World **OR**
 HIST 190 Honors World History 3 cr.

HIST 102 The West and the World to 1500 3 cr.
 HIST 103 The West and the World 1500-1900 3 cr.
 HIST104 America in the World, 1596-1877 3 cr.
 HIST 105 America in the World, 1877-2001 3 cr.

HIST 266 New York State History **OR**
 HIST 328 Dutch Roots of New York 3 cr.

Select from courses numbered between 200 – 495 level:
 3 credits in European History (HEUR) 3 cr.
 6 credits in non-Western History (HNW) 6 cr.
 3 credits in American History (HAM) 3 cr.

History Electives (HIST 300 – HIST 495) 3 cr.
 HIST 497 Proseminar 3 cr.
 HIST 499 History Capstone 3 cr.

Auxiliary (15.000 credits)

POSC 100 Contemporary US Politics 3 cr.

Students must earn 3 credits in **each** of the following subjects:
 Economics 3 cr.
 Sociology 3 cr.

Two semesters in the same foreign language* 6 cr.

*American Sign Language does **not** fulfill this requirement.

In addition to these requirements, students must complete the Education Certificate. Please see the Education Department for specific requirements.

Description of Courses

HIST—101. The Shaping of the Contemporary World 3 credits

This course aims to provide students with an introduction to the discipline and methodologies of history through the study of the relationship of the West to non-Western societies in the contemporary world. Attention is focused on understanding the unique events and trends of the 20th century and their political, social, economic, literary and artistic antecedents in the previous century. (ATTR: ARTS, CDH, GLST, ILST)

HIST—102. The West and the World to 1500 3 credits

This course provides a broad historical study of the main trends and events in global history from the rise of civilization in the Near East to the Italian Renaissance. It examines how patterns of interaction in the past have contributed to shaping historical change. Students will learn to understand and appreciate the important role of cross-cultural communication between the civilizations of “the West” and the rest of the World. They will examine the human condition over time, both the role of the powerful and the powerless. This course also introduces students to the discipline and methodologies of history. Students will engage with enduring questions of human concern, demonstrate competence in historical literacy, and practice intercultural knowledge and respect. (Same as HIST—201)(ATTR: ARTS, CDH, GLST, HEUR, HMEU, ILST, PNH)

HIST—103. The West and the World 1500-1900 3 credits

This course provides a broad historical study of the main trends and events in global history from 1500 to 1900. It examines how patterns of interaction in the past have contributed to shaping historical change. Students will learn to understand and appreciate the important role of cross-cultural communication between the civilizations of “the West” and the rest of the World. They will examine the human condition over time, both the role of the powerful and the powerless. This course also introduces students to the discipline and methodologies of history. Students will engage with enduring questions of human concern, demonstrate competence in historical literacy, and practice intercultural knowledge and respect. (Same as HIST—202)(ATTR: ARTS, CDH, GLST, HEUR, HMEU)

HIST—104. America in the World, 1596-1877 3 credits

This course examines American history through a global lens. It focuses on the effect of globalization on the development of the economy, society, culture and government of the United States to 1877. Students examine migration and cultural interactions among Native Americans, Africans, Europeans and Asians; the origins of the market economy and new labor systems; and the effect of the Enlightenment and religious revivals on political and cultural development. Additional topics covered will vary with the expertise of the instructor. This course also introduces students to the discipline and methodologies of history. Students will engage with enduring questions of human concern, demonstrate competence in historical literacy, and practice intercultural knowledge and respect. (Same as HIST—203)(ATTR: ARTS, AMSA, CDH, HAM, HMAM)

HIST—105. America in the World, 1877-2001 3 credits

This course examines American history through a global lens. It provides a broad survey of the political, geographic, social, economic, and intellectual factors that have contributed to the Civil growth of the United States as a great power and its changing role in the world from the Civil War era to 2001. Topics will include immigration and industrialization, social and political reform, cycles of prosperity and recession as well as technology as a driving force in American development. Additional topics covered will vary with the expertise of the instructor. This course also introduces students to the discipline and methodologies of history. Students will engage with enduring questions of human concern, demonstrate competence in historical literacy, and practice intercultural knowledge and respect. (Same as HIST—204)(ATTR: ARTS, AMSA, CDH, HAM, HMAM)

HIST—190. Honors World History 3 credits

See “History Honors Program” course descriptions at end of the history course descriptions.

HIST—210. History of Medicine 3 credits

This course will explore the changing intellectual, economic, institutional and cultural relationships that have characterized medicine in world history from antiquity to the present. We will consider the education of practitioners, the locations of healing, the availability of treatment, and the expectations that people had of medicine as ideas about the body and illness shifted radically with new discoveries and theories about health and disease. We will study the evolution of public health and examine the social responses to epidemic disease. Students will learn about the role of general social and cultural trends (industrialization, technology) in shaping medical practice and the medical professions. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, CFJ, HEUR, HNW, HSMR, ILST, MRST, STVS)

HIST—225. Medieval Europe 3 credits

A survey of western European history between roughly 450 and 1350, tracing political, social, and cultural trends. This course will focus on the formation of an entity called “Europe,” distinct from its neighbors in the Byzantine and Arabic worlds, yet including non-Christians as an integral part of European history. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, CFH, HEUR, HMEU, MRST, PNH)

HIST—230. Renaissance Europe 3 credits

A survey of European history between roughly 1350 and 1500, with special emphasis on cultural change and on Italy. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, HEUR, HMEU, PNH)

HIST—241. Latin America: The Colonial Period 3 credits

A survey of the history of Latin America from 1492 to independence in the 1820s. Prerequisites: Any HIST 100-level course.. (ATTR: ARTS, CAH, CFD, HNW, ISP, MULT, REA)

HIST—243. Latin America: The National Period 3 credits

A survey of the history of Latin America from the 1820s to the present. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, CAH, HNW, ISP)

HIST—251. Nineteenth Century Europe, 1815-1914 3 credits

This course treats industrialization and social change, the emergence of socialism and workers’ movements, political and economic liberalism, German and Italian unification, Social Darwinism, and European imperialism. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, HEUR, HMEU, ISP)

HIST—253. Europe, 1914-1945 3 credits

A study of the period as affected by the First World War, the Russian Revolution, the rise of Fascism in Italy and Nazism in Germany, the Great Depression, the problems of the democratic states, the breakdown of international cooperation, and World War II. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, GLST, HEUR, ILST, ISP, HMEU)

HIST—256. Contemporary Europe since 1945 3 credits

A historical treatment from the European perspective of the principal developments and crises from the end of World War II to the present. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, GLST, HEUR, ILST, ISP, HMEU)

HIST—258. Modern Britain and the British Empire 3 credits

This course is an introduction to the major themes, debates and concepts that characterize the history of Modern Britain and the British Empire. This course surveys the scope of the British overseas expansion at its height in the nineteenth and twentieth centuries. It examines the effects of the Empire on Britain’s colonies and on Britain domestically. Finally, the course examines the process of decolonization and the legacy of the British Empire up to the present day. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, HEUR, HMEU, ISP, PONH)

HIST—264. U.S. Military History 3 credits

A study of the military history of the U.S. (and necessary European background) from the age of settlement through Vietnam, concentrating on the roots of the armed forces in the society and the impact of change, social, political, and technological on the role and functions of the armed forces of the U.S. Prerequisites: Any HIST 100-level course. (ATTR: AMSA, ARTS, HAM, HMAM, REA)

HIST—266. New York State History 3 credits

This course examines the history and cultural heritage of New York State from the colonial era to the present. Topics include cross-cultural relations between Native Americans, Dutch and English in the colonial era; the the American Revolution in New York State; the environmental impact of the Erie Canal, immigration, industrialization, and urbanization since the 19th century; reform politics from the Civil War through the 20th century; and the history and legacy of the September 11, 2001 Terrorist Attacks. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, AMSA, CFD, EXPH, HAM, HMAM)

HIST—271. The Westward Movement, 1750-1890 3 credits

The development of the American West from its role in the Anglo-French conflict for empire to the official closing of the frontier by the census of 1890. Prerequisites: Any HIST 100-level course. (ATTR: AMSA, ARTS, HAM, HMAM, REA)

HIST—273. United States Women’s History 3 credits

History of women in the United States from the pre-Columbian era to the present. Students will focus on issues of gender difference in the history of American business, labor, politics, culture, and social life, as well as considering differences between women with regard to race, ethnicity, class, and age. Prerequisites: Any HIST 100-level course. (same as WSTU—305) (ATTR: ARTS, EXPH, HMAM, HAM, WSTU, AMSA)

HIST—275. African-American History 3 credits

A study of the course of black history in the United States, including migration to English America, slavery, emancipation, segregation, rise of organized protest movements, and the civil rights revolution, as well as a consideration of the influence of blacks upon various phases of American political, social, economic, and intellectual development. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, CAH, HAM, ISP, AMSA, HMAM, MULT)

HIST—278. Public History 3 credits

This course considers the practice of history outside of the formal classroom. Areas of study may include, but are not limited to, museums, libraries, archives, state and national parks, historical societies, theme parks, publishing, filmmaking, archaeology, and historic preservation. Prerequisites: Any HIST 100-level course.. (Same as AMST–475) (ATTR: ARTS, ACOM, EXPH, HAM, HMAM, REC)

HIST—281. Conflict in South Africa 3 credits

A survey of South Africa history from pre-colonial times through the arrival of white settlers and the ensuing race conflict which has raged through the centuries, with emphasis on the social, political and economic dimensions, up to the present. Prerequisites: Any HIST 100-level course.. (ATTR: ARTS, HNW, ISP, MULT)

HIST—285. History of Modern China 3 credits

History of modern China since 1840, with particular attention given to China’s response to the West, the disintegration of Imperial China, the development of nationalism, and the rise of Chinese communism. Prerequisites: Any HIST 100-level course.. (ATTR: ARTS, HNW, ISP, MULT)

HIST—287. History of Modern Japan 3 credits

History of modern Japan, with principal emphasis on political, economic, intellectual, and social developments since 1853. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, HNW, ISP, MULT)

HIST—295. History of Modern Russia 3 credits

A survey of Russian history from the reign of Ivan III (1462-1505) to the 20th century. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, HEUR, HMEU, ISP)

HIST—298. Russian Intellectual and Social History 3 credits

The evolution and development of Russian society and currents of thought from Kievan Rus to the present. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, CAH, HEUR, HMEU, ISP)

HIST—303. America and the World I: U.S. Foreign Relations 1776-1920 3 credits

This survey examines the people, ideas, and institutions that have shaped U.S. foreign relations from the American Revolution to the end of World War I. The course takes a broad view of foreign relations to include interstate diplomacy and economic, social, and cultural interactions among individuals, institutions, and non-governmental organizations. Prerequisites: Any HIST 100-level course.. (ATTR: ARTS, HAM, AMSA, HMAM, GLST, ILST)

HIST—305. America and the World II: U.S. Foreign Relations in the 20th Century 3 credits

This survey examines the people, ideas, and institutions that have shaped U.S. foreign relations from World War I to the present. The course takes a broad view of foreign relations to include interstate diplomacy and also economic, social, and cultural interactions among individuals, institutions, and non-governmental organizations. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, GLST, ILST, HAM, AMSA, HMAM)

HIST—311. American Colonies, 1558-1763 3 credits

A survey of the origins and development of the English colonies from the Elizabethan era explorations of the Eastern Atlantic to the French and Indian War. This course emphasizes cultural exchange and conflict between Europe, Native American, and African peoples in the New World. Topics will include the economic and religious motivations for colonization, imperial wars, and the economic, political, and cultural development of British North America. Prerequisites: Any HIST 100-level course.. (ATTR: ARTS, EXPH, HAM, AMSA, HMAM, REA)

HIST—312. American Revolution, 1763-1815 3 credits

A survey of the origins and development of the American Revolution and the United States from the British imperial crisis of the 1760s through the conclusion of the War of 1812. Topics will include the political, social, and economic causes of the American Revolution, the military course of the War of Independence, and the outcome of the war and revolution on diverse populations. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, EXPH, HAM, AMSA, HMAM, RVEE)

HIST—313. Antebellum America, 1815-1854 3 credits

This course explores the political, social, cultural, geographical, and economic expansion of the United States from the end of the War of 1812 to the sectional crisis over the Kansas territory in 1854. Students will analyze major themes including race, class, gender, immigration, social reform, nationalism, and sectionalism. Prerequisites: Any HIST 100-level course.. (ATTR: ARTS, HAM, AMSA, HMAM, REA)

HIST—315. The Civil War and Reconstruction, 1850-1877 3 credits

Description and analysis of the causes for the disruption of the Union, the conduct of the war, and the policies and politics of the Reconstruction era. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, HAM, AMSA, HMAM)

HIST—320. Industrial America 1877-1920 3 credits

A study of the emergence of the United States as an industrial, urban nation and as a world power. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, EXPH, HAM, AMSA, HMAM)

HIST—321. New Deals: US 1920-1945 3 credits

This course will consider politics, culture, economics, and society of the United States from the end of World War I through the 1920s, the Great Depression, and the Second World War. Prerequisites: Any HIST 100-level course. (ATTR: AMSA, ARTS, EXPH, HAM, HMAM)

HIST—322. American Century: US Since 1945 3 credits

U.S. history in the decades following the last World War, examining politics, culture, economics, and society from the Cold War to the rise of the internet. Prerequisites: Any HIST 100-level course. (ATTR: AMSA, ARTS, EXPH, HAM, HMAM)

HIST—328. Dutch Roots of New York 3 credits

An academically oriented study of New York State's Dutch Background, this specially designed course offers three semester hours credit for an intense study program in the Netherlands, preceded by orientation lectures, and followed by supervised research into various aspects of the field tour. Travel costs paid by student. Cost varies each semester. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, AMSA, EXPH, HAM, HEUR,)

HIST—330. The Middle East: Foundations of the Modern Experience 3 credits

A study of the region from the rise of Islam to the beginnings of modernization, with emphasis on the interplay of politics, religion, economy, and culture between 600 and 1800. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, CAH, GLST, HNW, ILST, ISP)

HIST—333. The Middle East in Modern Times 3 credits

A study of the emergence of the regional state system, deep economic transformation, and wrenching social and cultural changes since 1800. Particular attention is given to the reasons for conflict and war. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, GLST, ILST, HNW, ISP, MULT)

HIST—335. Greek Civilization 3 credits

A survey of the social, cultural, and political development of the Ancient Greeks, beginning with the Ancient Near East and continuing through the Homeric to the Hellenistic Age. This course may not be used to fulfill the requirement of six hours of foreign language study. Prerequisites: Any HIST 100-level course. (Same as CLSS—305) (ATTR: ARTS, CAH, HEUR, PNH)

HIST—336. Roman Civilization 3 credits

A survey of the social, cultural, and political development of Rome from its foundation to the fall of the Empire. Prerequisites: Any HIST 100-level course. (Same as CLSS—306) (ATTR: ARTS, CAH, HEUR, PNH)

HIST—337. Late Antiquity 3 credits

The study of Late Antiquity will investigate the fundamental period of transition from the classical to medieval world as it was experienced across the Mediterranean. Spanning the crises of the Late Roman Empire to its

disintegration, it will encompass diverse areas of inquiry: the establishment of Christianity within the Roman empire; the barbarian migrations and the ensuing destabilization of the Roman Empire in the west; the emergence of the papacy and the rise of the Frankish king, Charlemagne as a new emperor; the continuity of the Roman Empire in the east through the successors of Augustus who ruled the “Byzantine” Empire from Constantinople; the emergence of the Islamic caliphate and the founding of Bagdad. Prerequisites: Any HIST 100-level course. (Same as CLSS—340) (ATTR: ARTS, CFD, HEUR, MRST, PNH)

HIST—338. The Spartans 3 credits

Students will study the history and culture of Sparta from its beginnings ca. 1,000 BCE to its eventual collapse in the 4th Century BCE. The name Sparta has survived in the cultural memory of the west for more than 2,000 years in no small part due to its reputation for heroism and military might. We will examine the character of Spartan society and its emphasis on the heroic ideal. Students will learn how this ideal evolved, and how it enabled Sparta to become the most powerful state in ancient Greece. We will learn that Sparta’s truly unique military, social and political systems came at a heavy price; this aspect of Spartan culture will constitute another major focus of the course. Our examination of Sparta and its history will be based on evidence derived from primary sources, archaeology, art and secondary sources. Prerequisites: Any HIST 100-level course. (Same as CLSS—360.) (ATTR: ARTS, HEUR, PNH)

HIST—345. History of Mexico 3 credits

The political, social, and economic development of Mexico from colonial times to the present. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, CAH, HNW, ISP)

HIST—350. History of East Asia I 3 credits

A survey of East Asian history with emphasis on the political, economic, social, and cultural development of China, Japan, and Korea: from earliest times to 1600. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, CAH, GLST, HNW, ILST, ISP)

HIST—353. History of East Asia II 3 credits

A survey of East Asian history with emphasis on the political, economic, social, and cultural development of China, Japan, and Korea: since 1600. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, GLST, ILST, HNW, ISP, MULT)

HIST—370. Africa I: Genesis of Modern Africa 3 credits

A general examination of the social, political, economic and environmental developments of the indigenous African states including their response to Eastern and Western contacts from pre-history to 1875. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, GLST, HNW, ILST, ISP, MULT, REA)

HIST—373. Africa II: The Modern Transition 3 credits

A general examination of the development of Africa from 1875 with emphasis not only on the economy, society, and politics but also the impact of colonization upon the course of modernization. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, CAH, GLST, ILST, HNW, ISP, MULT)

HIST—375. Women in European History 3 credits

This course surveys the history of European women from ancient times to the present, with particular attention to how the study of women and gender has changed the way historians analyze the past. The construction of the concepts of masculinity and femininity will be explored through careful examination of primary and secondary materials. The latest historiographical approaches to the study of women and gender will be considered as will new resources for research. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, GLST, ILST, ISP, WSTU, HMEU, HEUR)

HIST—376. History of the Franciscan Tradition 3 credits

This course will familiarize the student with the persons, events and ideas that have inspired the Franciscan Movement. The student will come to understand the background of Franciscanism in the context of the High Middle Ages, and in contrast to earlier forms of religious life within the Christian tradition. The student will learn about the role of Franciscans in the development of western art; in higher education; in politics; in the age of exploration; and in the development of Christian Spirituality over the past 800 years. Appropriate attention will be paid to the internal struggles of Franciscans; to the role of women in the Franciscan family; and to the place of Franciscans in the Anglican Communion. The course will culminate in a look at the founding of Siena College as a Franciscan contribution to higher education. Prerequisites: (Any HIST 100-level course.) and (RELG—101 or 121 or 141 or 181). (Same as RELG—401) (ATTR: ARTS, CFH, HEUR, HNW, PONH, CAR, RSHS)

HIST—384. The Reformation of Christendom 3 credits

The reform of western Christianity in the sixteenth and seventeenth centuries as Europe moved from the medieval to the modern world. Special attention will be paid to significant figures such as Luther, Calvin, and Ignatius Loyola. Prerequisites: (Any HIST 100-level course.) and (RELG—101 or 121 or 141 or 181). (ATTR: ARTS, HEUR, HMEU, CFH, PHN) (Same as RELG—301)

HIST—389. History of Ireland. 3 credits

This course begins with the Celtic invasion of Ireland and proceeds through the recent attempts to create a lasting peace settlement in Northern Ireland. Along the way it examines the lasting influence of the Celtic, Viking, Norman, and English invasions of Ireland. This course focuses on political, cultural, social, and religious history as a way of understanding the many factors that have shaped Irish history. In addition, this course will address the relationship between Ireland and the Irish Diaspora. It discusses Ireland's changing place in the world, its role in the British Empire, and its participation in the European Union. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, HEUR, HMEU, ISP)

HIST—396. England from 1485-1815 3 credits

The emergence of modern England during the reigns of the Tudors, Stuarts and first four Hanoverians, with emphasis on political, social and economic changes. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, HEUR, ISP, PNH, HMEU, REA)

HIST—401 (402, 403). Colloquium in History 3 credits

This course is designed to explore areas and topics not treated in the traditional history course offerings. The area or theme will be studied in depth and emphasis will be on discussion. The subject will be announced before the semester in which the colloquium is to be given. An additional fee may be required, depending on the topic offered. May be taken more than once with different topics. Prerequisites: Any HIST 100-level course.. (ATTR: ARTS, REA)

HIST—411. Slavery in Historical Perspective 3 credits

An historical examination across the major world civilizations from the ancient period to the present of the development of slavery. Focus will be upon the causes and sources of slavery, its impact and consequences upon society, attitudes toward slavery, the life of the slave, and abolition. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, CAH, CFJ, GLST, HAM, HEUR, HNW, ILST, MULT, PNH, AMSA, REA)

HIST—415. The French Revolution and Napoleon 3 credits

A study of the revolution and its Napoleonic aftermath in its French and international aspects. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, CAH, HEUR, HMEU, ISP, PNH, REA)

HIST—418. History of Modern France 3 credits

Political and cultural development of modern France from the French Revolution to the present. Prerequisites: Any HIST 100-level course. (ATTR: ARTS, HEUR, ISP, HMEU)

HIST—421. Russian Foreign Policy: The Soviet Period 3 credits

An analysis of Soviet foreign relations: goals, strategy, and tactics, including the Cold War and post-Soviet foreign policy. Prerequisites: Any HIST 100-level course.. (ATTR: ARTS, HMEU, HEUR, ISP)

HIST—430. Russia Since 1900 3 credits

The study of the reign of Nicholas II (1894-1917), the Soviet period, and post-Soviet Russia. Prerequisites: Any HIST 100-level course.. (ATTR: ARTS, HEUR, ISP, HMEU)

HIST—457. American Immigration in Historical Perspective 3 credits

A study of the historical movement of peoples from around the world to the United States within the context of global political and economic changes that emphasizes transnational connections and the complex history of race, citizenship, and intercultural relations. Prerequisites: Any HIST 100-level course. (ATTR: AMSA, ARTS, GLST, ILST, HAM, HMAM, MULT)

HIST—465. Spanish Borderlands 3 credits

An historical examination of the Spanish borderland region of the United States between 1513 and 1821 with concluding remarks regarding the period of Mexican authority over Texas and the Southwest between 1821-1848. Focus will include the exploration and occupation of the region as well as social, political, economic, and military developments. Prerequisites: Any HIST 100-level course. (ATTR: AMSA, ARTS, CAH, GLST, HAM, HNW, ILST, ISP, MULT, REA)

HIST—480. Internship in History 3 credits

Work in local historical societies, museums, archival and resource centers, etc. Open to second semester Juniors and Seniors who have completed a minimum of 12 credit hours in history, including U.S. history, and who present a GPA of 3.0 or higher in history and 2.9 or higher overall. Permission of the Director of American Studies and the Head of the History Department is required. Evaluation of such credit is made by the staff of the participating institution, and the Director of American Studies or a member of the History Department chosen by the Department in consultation with the Director of American Studies. Prerequisites: Any HIST 100-level course. (Cross-listed as AMST—480) (ATTR: ARTS, EXPH, INT)

HIST—483. Public History Capstone 3 credits

The Public History Capstone is an intensive internship for students pursuing the Certificate in Public History. Capstone interns will be placed in museums, archives, and other appropriate public history centers, and tasks may include accounting, marketing, communications, as well as curatorial duties, programming, education, and/or other duties employed by professionals working in public history. The academic and on-site supervisor will coordinate a research project. Prerequisites: Any HIST 100-level course. Permission of instructor is required. (ATTR: ARTS, INT, NOEX)

HIST—485 (486, 487). Topics in Revolutionary Era History 3 credits

A study of specialized topics encompassing the Revolutionary Era from 1754 to 1815 that include: Economics of the Revolution; Education in the Colonies; Blacks in the Revolution: Free and Slave; Local History-Albany, Schenectady, Troy in the Revolution; Weapons and Tactics in the World and Revolution, 1785-1815; Colonial Women; Diplomacy in the Revolutionary Era. The specific topic is announced in the schedule of course offerings. Students may repeat the course for credit provided the selected subject matter has not been taken previously for credit. Prerequisite: HIST-104. (Cross-listed as AMST-485). (ATTR: ARTS, HAM, AMSA, HMAM, REA)

HIST—495. Independent Study 1 - 3 credits

Highly advanced individual study under the direction of a member of the department of a topic chosen by the student and based upon his/her particular interest and background. It will involve private consultation with the advisor, independent research, and the writing of a research paper. A senior History major with exceptional qualifications and a record of distinctive achievement may pursue independent study with the approval of an instructor and the department. Prerequisites: Any HIST 100-level course. (ATTR: ARTS)

HIST—497. Proseminar 3 credits

This seminar aims to introduce history students to both the methods and philosophical problems of history. The seminar will first consider a historical issue or a school of historical writing or the works of an eminent historian. It will then consider the philosophy of history and the questions historians have asked about their discipline. Assumes 12 hours of History. Permission of instructor required. (ATTR: ARTS)

HIST—499. History Capstone 3 credits

A student research oriented course requiring a substantial paper based on direct investigation of primary sources. Papers will be critiqued by members of the class. Additional, shorter writing assignments may also be required. Topic will vary with instructor. Open only to History and History Education majors. Prerequisites: Senior standing (90 hours), Prerequisites: Any HIST 100-level course., 21 hours of History (including a HIST 100-level course). (ATTR: ARTS, REA)

History Honors Program

HIST—190. Honors World History 3 credits

Selected topics in world history. This seminar fulfills the core disciplinary requirement of three credits in history for those students who qualify. (ATTR: ARTS, CDH, HNRS)

HIST—390. Honors Seminar: Selected Research Topics 3 credits (ATTR: ARTS, HNRS)

HIST—490. Honors Seminar: Selected Research Topics 3 credits (ATTR: ARTS, HNRS)

Modern Language and Classics Department

Chair: Dr. Michael Sham, Prof.

Prof.: Dr. Carolyn F. Malloy, Dr. Janet Shideler

Assoc. Prof: Dr. Nathalie M. Degroult, Dr. Marcela T. Garces

Asst. Prof.: Dr. Lisette V. Balabarca

The study of modern languages has multiple objectives. It presents to the student vocabulary, idiom, and structure of a foreign language, and at the same time it teaches the student to understand the spoken language and to converse in it, to read well and to write correctly. Also, through the study of cultural differences, modern language courses endeavor to help free students' thinking from provincialism and narrow-minded world views. Through the study of literature, the student moves beyond the language itself and gains important insight into other civilizations, other times and their ideas.

The objectives of the Classics curriculum are twofold. First, the Department teaches courses in Greek or Latin as a preparation for a professional career where a knowledge of the original languages is essential. Second, the Department teaches courses (requiring no knowledge of Greek or Latin) which set forth significant aspects of classical civilization: its pervasive ideals, political experiences, artistic forms, and literary archetypes. The offerings of the Classics curriculum are designed to provide a student with a unique grasp of the origins of Western Culture. Courses are structured in three units: GREK-Greek Language and Literature; LATN-Latin Language and Literature; CLSS-Greek and Roman Studies.

All incoming students who desire to begin their modern language study on the intermediate level shall present a minimum of two years modern language study with a grade of C or higher.

Modern Language majors interested in international studies and international business should consult the section of the catalog describing Siena's program in International Studies, Foreign Languages, and Business.

Individuals who are native speakers of the language being studied will require departmental permission to take FREN—101 through FREN—302 or SPAN—101 through SPAN—302 or GERM—101 through GERM—302 or RUSS—101 through RUSS—302 for credit.

Requirements for the Major, B.A. in French (33.000 credits):

FREN 301	French Conversation I	3 cr.
FREN 302	French Conversation II	3 cr.
FREN 410	Advanced Grammar and Composition	3 cr.

One course on French Society and Culture course taught in French (such as FREN 330 or FREN 340 or their equivalents) 3 cr.

FREN 400 or higher with the attribute of FRLT * 3 cr.

One course at the 400 level or above which is Literature, Culture or Cinema * 3 cr.

Electives 15 cr.

Courses below FREN 201 cannot count in the major.

Students who plan to teach or enter graduate study are advised to take additional courses in a second foreign language.

A study abroad experience is strongly advised (preferably a minimum of a semester during the junior year). Courses taken abroad may count toward the major.

indicates that this course must be at taken at Siena.

* Indicates that one of these two courses must be taken at Siena.

Requirements for the Minor in French (18.000 credits):

FREN 301	French Conversation I	3 cr.
FREN 302	French Conversation II	3 cr.
	One French Literature course taught in French (Attribute FRLT)	3 cr.
	One course on French "Society or Culture" taught in French (Such as FREN 330 or 340)	3 cr.
	French Electives	6 cr.

Course below FREN 201 cannot count toward the minor.

Requirements for the Major, B.A. in Spanish: (33.000 credits):

SPAN 301	Communication in Spanish I	3 cr.
SPAN 302	Communication in Spanish II	3 cr.
SPAN 320	Introduction to Hispanic Literature (or equivalent SPLT)	3 cr.
SPAN 340	Advanced Grammar (must be completed at Siena)	3 cr.

SPAN 350	Spanish Civilization	OR	
SPAN 360	Spanish American Civilization (or equivalent)		3 cr.

	*One course SPAN 400 or higher with attribute SPUL	3 cr.
	One additional course SPAN 400 or higher	3 cr.
	Spanish Electives	12 cr.

Courses below Spanish 201 cannot count in the major.

A study abroad experience is strongly advised (preferably a minimum of one semester during the junior year).

Courses taken abroad may count toward the major.

*Indicates that one of these two courses must be taken at Siena.

Requirements for the Minor, Spanish (18.000 credits):

SPAN 301	Communication in Spanish I	3 cr.
SPAN 302	Communication in Spanish II	3 cr.
	One course in literature taught in Spanish(ATTR: SPLT)	3 cr.
SPAN 350	Spanish Civilization	OR
SPAN 360	Spanish American Civilization (or equivalent)	3 cr.
	Spanish Electives	6 cr.

Courses below SPAN 201 cannot count in the minor. Courses given in English do not count toward the minor in Spanish.

Requirements for the Minor, German (18.000 credits):

	18 credits in German	18 cr.
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Courses below GERM 201 cannot count in the minor.

Requirements for the Major, B.A. in Classics: (36.000 credits):

	24 credits in Classics	24 cr.
	12 credits in Greek	OR
	12 credits in Latin	12 cr.

Students who plan to enter graduate study in Classics are advised to take additional courses in the second of the classical languages. For students planning an advanced degree it is also recommended that they begin the study of French and/or German.

Requirements for the Minor, Classics (18.000 credits):

	6 credits in Greek	OR	
	6 credits in Latin		6 cr.
	An additional 12 credits from the following: LATN, GREK or CLSS.		12 cr.

Requirements for the Minor, Greek (18.000 credits):

	12 credits in Greek	12 cr.
	6 credits in Classics	6 cr.

Requirements for the Minor, Latin (18.000 credits):

12 credits in Latin	12 cr.
6 credits in Classics	6 cr.

Requirements for the Minor, Italian (18.000 credits):

*ITAL 201	Intermediate Italian I	3 cr.
*ITAL 202	Intermediate Italian II	3 cr.
*ITAL 301	Communication in Italian I	3 cr.
*ITAL 302	Communication in Italian II	3 cr.

**Additional credits of advanced courses taken outside of Siena (at nationally or internationally accredited institutions) 6 cr.

*A minimum of three courses must be taken at Siena.

** Additional courses taken to count toward the minor must be approved by the Assistant Dean

Courses below ITAL 201 cannot count in the minor.

Education Certification in French or Spanish

French and Spanish majors seeking entrance to the Education Certification Program must consult their language advisors regarding specific requirements for the program.

The Modern Languages and Classics Department will recommend for participation in the Education Certification Program students who have achieved: 1) an overall GPA of at least 3.0; 2) a GPA of 3.2 in the major field, and 3) a score of at least an Advanced Low on their Oral Proficiency Interview (OPI) which is based on the American Council for the Teaching of Foreign Languages (ACTFL) standards. Students are responsible for the expense of the OPI.

OPI requirements for acceptance to the Education Certification Program:

The targeted level of oral proficiency is a rating of Advanced Low on the OPI. We use the following criteria for acceptance into the Education Certification Program:

1. Students who receive a minimum of Advanced Low will be admitted immediately into the Education Certification Program;
2. Students who receive an Intermediate High on the oral OPI will be conditionally accepted into the Education Certification Program but must engage in remedial academic work to improve their language skills, and
3. Students who receive less than Intermediate High on the OPI will not be admitted into the Education Certification Program.

The OPI must be taken within a month of returning from an abroad experience. Fall experience: by January 31; Spring experience: by June 30. Study abroad is an optimal way to achieve oral proficiency. A minimum of a semester abroad in a French or Spanish speaking country is strongly advised. Students will not be recommended for certification until they achieve a minimum of Advanced Low as defined by the ACTFL standards.

American Sign Language Description of Courses

AMSL—101. Elementary American Sign Language I 3 credits

An introduction to visual-gestural language. Contains the manual alphabet, basic numbers, sign vocabulary, aspects of deaf culture and history, and basic conversational skills with American Sign Language (ASL). No prerequisites.

AMSL—102. Elementary American Sign Language II 3 credits

A continuation of AMSL 101, an introduction to visual-gestural language. Contains the comprehensive numbers, classifiers and grammatical structures. The skill development of conversation and storytelling is emphasized. Prerequisite: AMSL—101

Arabic

Description of Courses

ARAB—035. Arabic Study Travel Course-English 3 credits

This course consists of coursework that will be taught in English and consist of coursework in English followed by an intensive travel study component in a selected Arabic speaking country. Orientation meetings, research, lectures and discussions will prepare students for an informed field experience. Upon return, students present a project/research paper and portfolio based on their cultural, historical, socio-economic knowledge acquired in the class and abroad. Students may repeat this course for credit if subject matter differs. Travel costs are paid in full by students. The cost varies each semester. This course will not fulfill a language requirement. Prerequisite: Permission of Instructor. (ATTR: ARTS, ISP, CFD, MULT, GLST, ILST)

ARAB—101. Fundamentals of Arabic I 3 credits

The study of formal spoken and written modern Arabic: the writing system, pronunciation, vocabulary, grammar, and composition with supplementary reading in the language. Introduction to cultural realities of the Arabic-speaking world. This course is for students with no prior study of Arabic. (ATTR: ARTS)

ARAB—102. Fundamentals of Arabic II 3 credits

A continuation of ARAB 101. Further study of grammar, vocabulary, and composition with supplementary readings in the language. Continued study of cultural realities of the Arabic-speaking world. This course is for students who have completed the equivalent of one semester of college Arabic. (ATTR: ARTS)

ARAB—201. Intermediate Arabic I 3 credits

A thorough review of the structures of Arabic, supplemented by selective readings. The audio lingual aspect of the language is further developed, and the ability to read with understanding is increased. Further cultural study. This course is for students who have completed the equivalent of two semesters of college Arabic. (ATTR: ARTS)

ARAB—202. Intermediate Arabic II 3 credits

A continuation of ARAB 201. This course is for students who have completed the equivalent of three semesters of college Arabic. (ATTR: ARTS)

ARAB—301. Communication in Arabic I 3 credits

To increase proficiency in speaking Arabic and deepening the understanding of the cultural realities. This course is for students who have completed the equivalent of four semesters of college Arabic. (ATTR: ARTS)

ARAB—302. Communication in Arabic II 3 credits

A continuation of ARAB 301. Emphasis on the development of writing skills and extended study of cultural realities. This course is for students who have completed the equivalent of five semesters of college Arabic. (ATTR: ARTS)

ARAB—305. Arabic Study Travel Course 3 credits

This academically oriented course will be taught in Arabic and consists of coursework followed by an intensive travel study component in a selected Arabic-speaking country. Orientation meetings, research, lectures and discussions will prepare students for an informed field experience. Upon return, students present a project/research paper and portfolio based on their cultural, historical, socio-economic knowledge acquired abroad. Students may repeat this course for credit if subject matter differs. Travel costs are paid in full by students. The cost varies each semester. This course will fulfill a language requirement. Prerequisites: ARAB-102 and permission of Instructor. (ATTR: ARTS, ISP, CFD, MULT, GLST, ILST)

French

Description of Courses

FREN—025. Modern French Novel in Translation 3 credits

The course examines representative works from Proust to the present day and provides discussion of each author's ideas of basic modern problems in English. No knowledge of French language is required. May not be used as part of French major or minor. (ATTR: ARTS, CAL)

FREN—026. French Literature in Translation 3 credits

A study of selected masterworks of French literature from its medieval beginnings through the twentieth century, including novels, short stories, drama and poetry, read in English translation. No knowledge of French language is required. May not be used as part of French major or minor. (ATTR: ARTS, CAL, CFH)

FREN—027. French Cinema 3 credits

A study of selected contemporary French language films (subtitled) with focus on the films' artistic expression and psychological, social, historical, and cultural content. Course taught in English. No prerequisites. (ATTR: ARTS, CAA, CFD, FILM, GLST, ILST)

FREN— 035. French Study Travel Course-English 3 credits

This academically oriented course will be taught in English and consist of coursework in English followed by an intensive travel study component in a selected French- speaking country. Orientation meetings, research, lectures and discussions will prepare students for an informed field experience. Upon return, students present a project/ research paper and portfolio based on their cultural, historical, socio-economic knowledge acquired in the class and abroad. Students may repeat this course for credit if subject matter differs. Travel costs are paid in full by students. The cost varies each semester. This course will not fulfill a language requirement, nor will it count toward a major or minor in French. Prerequisites: Permission of Instructor. (ATTR: ARTS; ISP;CFD;MULT;GLST, ILST)

FREN—101. Fundamentals of French I 3 credits

The study of French pronunciation, vocabulary, grammar, and composition with supplementary reading in the language. (ATTR: ARTS)

FREN—102. Fundamentals of French II 3 credits

A continuation of FREN—101. Prerequisite: FREN—101 or equivalent. (ATTR: ARTS)

FREN—201. Intermediate French I 3 credits

A thorough review of the structures of the French language, supplemented by selected readings. Emphasis will be placed on the oral aspect of the language. Prerequisite: FREN—101 and 102 or evidence of having successfully completed at least two years' study of French on the secondary level. (ATTR: ARTS)

FREN—202. Intermediate French II 3 credits

A continuation of FREN—201. Prerequisite: FREN—201. (ATTR: ARTS)

FREN—301. French Conversation I 3 credits

This course is intended for those students who have a good knowledge of written French but who have had limited opportunity to hear and speak it. Class work will consist of building the vocabulary of everyday speech with a view towards an active vocabulary and giving confidence in oral expression. Prerequisites: FREN—201 and 202 or equivalent. (ATTR: ARTS, ISP)

FREN—302. French Conversation II 3 credits

A continuation of the work of French Conversation I but with stress upon more complicated structures, more extensive and specialized vocabularies. The aim is to prepare the student for increased ease and ability to carry on day-to-day activities in French. Prerequisites: FREN—201 and 202, or equivalent. (ATTR: ARTS, ISP)

FREN—305. French Study Travel Course 3 credits

This academically oriented course will be taught in French and consist of coursework followed by an intensive travel student component in a selected French-speaking country. Orientation meetings, research, lectures and discussions will prepare students for an informed field experience. Upon return, students present a project/research paper and portfolio based on their cultural, historical, socio-economic knowledge acquired abroad. Students may repeat this course for credit if subject matter differs. Travel costs are paid in full by students. The cost varies each semester. This course will fulfill a language requirement and count toward a major or minor in French. Prerequisites: FREN-202 and permission of instructor. (ATTR: ARTS, CFD, GLST, ILST, MULT, ISP)

FREN—310. Advanced French Conversation 3 credits

Advanced oral work through class discussion of selected topics and creation of dialogues. Intensive pronunciation work. Prerequisite: FREN—301 and 302 or permission of instructor. (ATTR: ARTS, ISP)

FREN—330. French Civilization 3 credits

A survey of the factors and forces that made Modern French Civilization. Prerequisite: FREN—301. (ATTR: ARTS, GLST, ILST, ISP)

FREN—340. Civilization of Québec 3 credits

A study of Québec, through its history, geography, arts and literature, political, and social structures. Various social justice concepts, such as human rights, equality, equity, and the status of minorities, will inform our study of historical events as we consider a number of questions. What happens when the colonizer becomes the colonized? What are the consequences when cultural imperialism becomes a guiding principle of government? Do the rights of minority populations outweigh commitment to the common good? Prerequisite: FREN—301 or equivalent. (ATTR: ARTS, CFJ, FSCL, GLST, ILST, ISP)

FREN—341. Civilization of Québec in English 3 credits

A study of Québec, through its history, geography, arts and literature, political, and social structures. Various social justice concepts, such as human rights, equality, equity, and the status of minorities, will inform our study of historical events as we consider a number of questions. What happens when the colonizer becomes the colonized? What are the consequences when cultural imperialism becomes a guiding principle of government? Do the rights of minority populations outweigh commitment to the common good? Taught in English. This course will not fulfill any of the French major or minor requirements. (ATTR: ARTS, CFJ, GLST, ILST, ISP)

FREN—360. Introduction to French Literature 3 credits

Reading and analysis of texts of different genres, which will be selected primarily from the works of modern French authors. In order to develop further the oral skills, class discussions will be conducted in French. Prerequisite: FREN—301 or equivalent. (ATTR: ARTS, ISP, FRLT)

FREN—370. Introduction to French Drama 3 credits

This course constitutes an introduction to French Literature through the medium of the Drama. (ATTR: ARTS, ISP, FRLT)

FREN—380. The Short Story 3 credits

This course introduces the student to French literature through the medium of one of its most important genres. With an important emphasis on oral work on the part of the student, the course will be conducted in French. Prerequisites: FREN—301. (ATTR: ARTS, ISP, FRLT)

FREN—400. Topics in French 3 credits

An in-depth study of specialized topics in French. This course may be taken more than once with different subject matter and it is intended for the advanced student in French. Prerequisites: FREN-302. (ATTR: ARTS)

FREN—401. Survey of French Literature I 3 credits

The course demonstrates the evolution of major themes in French literature in all genres from their origins to the beginnings of modern times. Prerequisites: FREN—301. (ATTR: ARTS, ISP, FRLT)

FREN—402. Survey of French Literature II 3 credits

An introduction to French writers of the nineteenth and twentieth centuries. Included are examples of short story, poetry, and drama. Prerequisites: FREN—301. (ATTR: ARTS, ISP, FRLT)

FREN—410. Advanced Grammar and Composition 3 credits

A systematic presentation of the more complex points of French grammar. An application of these grammatical principles will be demonstrated through extensive written exercises, including translations and original compositions. Prerequisite: FREN—301. (ATTR: ARTS, ISP)

FREN—495. Independent Study in French 1 - 3 credits

A student taking a major or minor in French may work independently on a topic of special interest. The student consults with the professor with whom he/she decides on a study that will permit a definite accomplishment by the end of the semester. This study must be approved by the department head and the dean. In a term paper or essay he/she is expected to demonstrate familiarity with the tools basic to his/her study and an awareness of the methods appropriate to pursuing his/her interest. (ATTR: ARTS, ISP)

German

Description of Courses

GERM—025. Twentieth Century Germanic Literature in Translation 3 credits

A study of selected masterpieces of German, Austrian, and Swiss Literature including novels, short stories, drama, and poetry, read in English translation. No prerequisite. (ATTR: ARTS, GLST, ILST, CAL, CFH)

GERM—026. Twentieth Century German Cinema 3 credits

A study of selected 20th century German language films (subtitled) with focus on the films artistic expression and psychological, social, historical, and cultural content. Course taught in English. No prerequisites. (ATTR: ARTS, CAA, CFD, FILM, GLST, ILST)

GERM—027. US and German Media 3 credits

This course is a comparative study of U.S. and German media which focuses on its content, form, and impact. In this course, students will: decode, evaluate and compare data presented in a variety of U.S. and German information sources; analyze how media and its message are presented in both countries; and, critically reflect upon the media message and their understanding of it. This course will consider printed, audio, and visual information as text which will be analyzed for its information content, its social, and cultural bias, as well any possible intended manipulation of the reader's/listener's/viewer's perspective.

Throughout this course, the interpretation of the medium will consistently focus attention on the Franciscan heritage concern which embraces a broad sense of tradition. Media has been a means of communication since humans existed. The study of media, in its diverse forms (visual, audio or printed) always had and has a subtext grounded in a culture and heritage which evolved through the ages

This course will be taught in English. All German materials will be in translation, dubbed, or subtitled. (ATTR: ARTS, CFD, GLST, ILST)

GERM—035. German Study Travel Course -English 3 credits

This academically oriented course will be taught in English and consist of coursework in English followed by an intensive travel study component in a selected German-speaking country. Orientation meetings, research, lectures and discussions will prepare students for an informed field experience. Upon return, students present a project/research paper and portfolio based on their cultural, historical, socio-economic knowledge acquired abroad. Students may repeat this course for credit if subject matter differs. Travel costs are paid in full by students. The cost varies each semester. This course will not fulfill a language requirement, nor will it count towards a minor in German. Prerequisites: Permission of Instructor. (ATTR: ARTS, ISP, CFD, MULT, GLST, ILST)

GERM—101. Fundamentals of German I 3 credits

Introduction to elementary German grammar, syntax, and vocabulary. Designed for students with no previous knowledge of German. (ATTR: ARTS)

GERM—102. Fundamentals of German II 3 credits

A continuation of GERM—101. Prerequisite: GERM—101 or 2 years of high school German. (ATTR: ARTS)

GERM—201. Intermediate German I 3 credits

Intensive review of grammar and syntax, supplemented by selected readings. Prerequisite: GERM—101, 102 or three years of high school German. (ATTR: ARTS)

GERM—202. Intermediate German II 3 credits

A continuation of GERM—201. Prerequisite: GERM—201 or four years of high school German. (ATTR: ARTS)

GERM—230. German Drama: Studied and Staged 3 credits

This course is a literature/language course which will utilize the process of drama staging as an additional tool for learning language. It is not a performing arts class. The course will introduce students to an in-depth literary study of a selected Germanic drama, provide students with an opportunity to actively engage in the use of the German language in rewriting parts of the drama for production purposes, and enable students to stage the drama, which will not only drill language, but also facilitate the understanding of drama as not only content but also form in performance space. Prerequisites: German—101 and 102, or permission of the instructor. (ATTR: ARTS)

GERM—301. Conversational German I 3 credits

Emphasis placed on vocabulary building and oral proficiency. Little or no grammar review. Prerequisite: GERM—202 or consent of instructor. (ATTR: ARTS, ISP)

GERM—302. Conversational German II 3 credits

Continuation of GERM—301. Prerequisite: GERM—301 or permission of instructor. (ATTR: ARTS, ISP)

GERM—305. German Study Travel Course 3 credits

This academically oriented course will be taught in German and consists of coursework followed by an intensive travel study component in a selected Germanic-speaking country. Orientation meetings, research, lectures and discussions will prepare students for an informed field experience. Upon return, students present a project/research paper and portfolio based on their cultural, historical, socio-economic knowledge acquired abroad. Students may repeat this course for credit if subject matter differs. Travel costs are paid in full by students. The cost varies each semester. This course will fulfill a language requirement and count toward a minor in German. Prerequisites: GERM-102 and permission of instructor. (ATTR: ARTS, ISP, CFD, MULT, GLST, ILST)

GERM—330. German Civilization I 3 credits

A survey of German history and culture from the Period of the Migration to the Age of Frederick the Great. Prerequisite: GERM—202 or permission of instructor. (ATTR: ARTS, ISP)

GERM—331. German Civilization II 3 credits

A survey of German history and culture from the Age of the Revolution to the Weimar Republic. Prerequisite: GERM—202 or permission of instructor. (ATTR: ARTS, ISP)

***GERM—340. Modern German Readings I 3 credits

Selected German Readings offered as a tutorial for advanced students of German. Prerequisite: GERM—202 or permission of instructor. (ATTR: ARTS, ISP)

***GERM—341. Modern German Readings II 3 credits

Continuation of GERM—340 Prerequisite: GERM—340 or permission of instructor. (ATTR: ARTS, ISP)

Italian Description of Courses

ITAL—035. Italian Study Travel Course-English 3 credits

This academically oriented course will be taught in English and consist of coursework followed by an intensive travel study component in Italy. Orientation meetings, research, lectures and discussions will prepare students for an informed field experience. Upon return, students present a project/research paper and portfolio based on their cultural, historical, socio- economic knowledge acquired abroad. Students may repeat this course for credit if subject matter differs. Travel costs are paid in full by students. The cost varies each semester. This course may not be used as part of the Italian minor and will not fulfill a language requirement. Prerequisites: Permission of Instructor. (ATTR: ARTS, ISP,CFD,MULT,GLST, ILST)

ITAL—101. Fundamentals of Italian I 3 credits

The study of Italian pronunciation, vocabulary, grammar, and composition with supplementary reading in the language. (ATTR: ARTS)

ITAL—102. Fundamentals of Italian II 3 credits

A continuation of ITAL—101. Prerequisite: ITAL—101 or equivalent. (ATTR: ARTS)

ITAL—201. Intermediate Italian I 3 credits

A thorough review of the structures of the Italian language, supplemented by selected readings. The audio-lingual aspect of the language is further developed, and the ability to read with understanding is increased. Prerequisite: ITAL—101 and 102, or evidence of having successfully completed at least two years study of Italian on the secondary level. (ATTR: ARTS)

ITAL—202. Intermediate Italian II 3 credits

A continuation of ITAL—201. Prerequisite: ITAL—201. (ATTR: ARTS)

ITAL—301. Communication in Italian I 3 credits

To increase proficiency in speaking Italian. Prerequisites: ITAL—202 or equivalent. (ATTR: ARTS)

ITAL—302. Communication in Italian II 3 credits

A continuation of ITAL—301 with emphasis on the development of writing skills. Prerequisite: ITAL—301. (ATTR: ARTS)

ITAL—305. Italian Study Travel Course 3 credits

This academically oriented course will be taught in Italian and consists of coursework followed by an intensive travel study component in Italy. Orientation meetings, research, lectures and discussions will prepare students for an informed field experience. Upon return, students present a project/research paper and portfolio based on their cultural, historical, socio-economic knowledge acquired abroad. The cost varies each semester. This course will fulfill a language requirement and count toward a minor in Italian. Prerequisites: ITAL-202 and permission of instructor. (ATTR: ARTS, CFD, ISP, GLST, ILST, MULT)

Russian Description of Courses

RUSS—035. Russian Study Travel Course-English 3 credits

This academically oriented course will be taught in English and consist of coursework followed by an intensive travel study component in Russia. Orientation meetings, research, lectures and discussions will prepare students for an informed field experience. Upon return, students present a project/research paper and portfolio based on their cultural, historical, socio-economic knowledge acquired abroad. Students may repeat this course for credit if subject matter differs. Travel costs are paid in full by students. The cost varies each semester. This course will not fulfill a language requirement. Prerequisites: Permission of Instructor. (ATTR: ARTS: ISP; CFD; MULT; GLST, ILST)

***RUSS—101. Fundamentals of Russian I 3 credits

An introductory study of Russian phonetics, pronunciation, vocabulary, and grammar. Stress upon the spoken language, with oral drill and dialogue practice. (ATTR: ARTS)

***RUSS—102. Fundamentals of Russian II 3 credits

A continuation of RUSS—101. Prerequisite: RUSS—101 or the equivalent. (ATTR: ARTS)

RUSS—201. Intermediate Russian I 3 credits

The study of Russian grammar and vocabulary is continued. At this level both spoken language and reading are stressed. Prerequisite: RUSS—102 or the equivalent. (ATTR: ARTS)

RUSS—202. Intermediate Russian II 3 credits

A continuation of RUSS—201. Prerequisite: RUSS—201 or the equivalent. (ATTR: ARTS)

***RUSS—301. Russian Conversation I 3 credits

The emphasis is on speaking Russian. Colloquial speech patterns will be studied. To broaden vocabulary, increase reading skills and stimulate classroom discussion, texts ranging from Pushkin to Solzhenitsyn will be used. Grammar and syntax will be reviewed. Prerequisite: RUSS—202 or the equivalent. (ATTR: ARTS, ISP)

***RUSS—302. Russian Conversation II 3 credits

Continuation of RUSS—301. Prerequisite: RUSS—301 or the equivalent. (ATTR: ARTS, ISP)

RUSS—305. Russian Study Travel Course 3 credits

This academically oriented course will be taught in Russian and consist of coursework followed by an intensive travel study component in Russia. Orientation meetings, research, lectures and discussions will prepare students for an informed field experience. Upon return, students present a project/research paper and portfolio based on their cultural, historical, socio-economic knowledge acquired abroad. Students may repeat this course for credit if subject matter differs. Travel costs are paid in full by students. The cost varies each semester. This course will fulfill a language requirement. Prerequisites: RUSS-102 and permission of instructor. (ATTR: ARTS, ISP, CFD)

***RUSS—401. Advanced Russian Readings and Conversation I 3 credits

Development of reading and speaking skills will be emphasized. Grammar and syntax will be reviewed and new material introduced. Emphasis will be placed on increasing both passive and active vocabulary using a wide range of sources including textbooks, literary and journalistic sources, and class discussion. Prerequisite: RUSS—302 or equivalent. (ATTR: ARTS, ISP)

***RUSS—402. Advanced Russian Readings and Conversation II 3 credits

Continuation of RUSS—401. Prerequisite: RUSS—401 or equivalent. (ATTR: ARTS, ISP)

Spanish **Description of Courses**

The following courses are taught in English. These courses do not count towards the Spanish Major or Minor.

SPAN—025. Spanish Speaking World Through Film 3 credits

This course, taught in English, includes the study of selected subtitled films, which will be utilized as a visual and aural source to learn about social justice issues in the Spanish-speaking world. Students will learn about the history, politics, and social issues of Spanish speaking populations in Latin America, Spain and the United States. The geographical emphasis will shift among the various Spanish-speaking regions of the world. Possible broad themes include memory, oppression, self-discovery, immigration, exile, identity, assimilation, women's rights, dictatorship, GLBTQ issues, and indigenous rights. With its roots in the ideals of the Franciscan tradition, this course demonstrates how to critically analyze social justice issues in cultural settings depicted in films from the Spanish-speaking world from a variety of perspectives. Does not count towards Spanish major or minor. (Same as FILM—370) (ATTR: ARTS, CFJ, FILM, GLST, ILST, MULT, LACS)

SPAN—026. Spanish Medieval and Early Modern Literature in Translation 3 credits

This course, taught in English, will focus on Medieval and Early Modern Spanish poetry, prose and drama. A series of works that are considered canonical masterpieces will be analyzed within the political, social, religious and historical context of the Iberian Peninsula between the years of 1100 and 1650. Selected texts from authors like Juan Ruiz, Quevedo, Góngora, Cervantes and Lope de Vega, among others, will be read in English translation. Does not count towards Spanish major or minor. (ATTR: ARTS, CFJ, GLST, ILST, MRST)

SPAN—027. Women Writers from Latin America: Literature in Translation 3 credits

This course, taught in English, provides an overview of women's writing and cultural expression from Latin America through novels, short stories, poetry, film and music. Historical and contextual background of the authors and their countries of origin are interwoven into course material. This course examines women's search for a voice in Latin America. Does not count towards Spanish major or minor. (ATTR: ARTS, CAL, CFD, GLST, ILST, LACS, MULT, WSTU)

SPAN—028. Visual Culture of the Spanish-Speaking World 3 credits

Visual Culture of the Spanish-Speaking World, taught in English, will address visual cultural products produced in Latin America, Spain, the Caribbean, and Latino/as in the United States. Through the study of films, street art, photography, illustration, paintings, and protest art, among other media, students will gain an appreciation for the vast diversity amongst Iberoamerican cultures. The study of visual culture will be used to delve into themes such as gender equality, immigration, class disparities, and ethnic and religious minorities framed within socio-political contexts. The goal of the course is to reach a further understanding of the rich and diverse visual cultural production in a wide variety of Spanish-speaking contexts. (ATTR: ARTS, CFD, FILM, ILST, MULT, LACS)

SPAN—035. Spanish Language Study Travel-English 3 credits

This academically oriented course will be taught in English and consists of coursework followed by an intensive travel study component in a selected Spanish-speaking country. Orientation meetings, research, lectures and discussions will prepare students for an informed field experience. Upon return, students present a project/research paper and portfolio based on their cultural, historical, socio-economic knowledge acquired in class and abroad. Students may repeat this course for credit if subject matter differs. Travel costs are paid in full by students. The cost varies each semester. This course will not fulfill a language requirement, nor will it count toward a major or minor in Spanish. Prerequisites: Permission of Instructor. (ATTR: ARTS, ISP, CFD, LALA, MULT, GLST, ILST)

The following courses are taught in Spanish:

SPAN—101. Fundamentals of Spanish I 3 credits

This beginning course is designed for students with no background in Spanish. The main objective is to help you achieve a beginner's level of proficiency in Spanish. It will emphasize the development of practical communication skills through a variety of interactive activities and the study of basic grammar structures. Besides listening comprehension, reading, writing and pronunciation skills, the course will focus on the diverse cultures of the Spanish-speaking countries around the world and the Spanish-speaking people living in the United States. (ATTR: ARTS)

SPAN—102. Fundamentals of Spanish II 3 credits

A continuation of SPAN—101. Prerequisite: SPAN—101. (ATTR: ARTS)

SPAN—201. Intermediate Spanish I 3 credits

This intensive course develops and improves language skills as per ACTFL Standards: listening, speaking, reading, writing, and cultural literacy. Along with reviewing the grammar that will be covered from the text, students will practice listening and speaking skills through several short oral projects, participate in ongoing conversation in class, listen to music, view film clips, and read websites from Spanish-speaking countries. Students will gain a better understanding of the language system and sharpen skills to get involved in real communication. Students will develop reading and writing skills through short compositions and exercises and cultural competency by continued emphasis on cultural, historical, socio-political realities of the Spanish-speaking countries. To accomplish these objectives, the instructor will implement a communication-based methodology that requires active student participation in class and previous preparation for each class. Prerequisite: SPAN—101, 102 or evidence of having successfully completed at least two years of study of Spanish on the secondary level. (ATTR: ARTS)

SPAN—202. Intermediate Spanish II 3 credits

A continuation of SPAN—201. Prerequisite: SPAN—201. (ATTR: ARTS)

SPAN—250. Medical Spanish 3 credits

This course is designed for students who are pursuing a career in one of the medical fields. In this course students will learn the following: basic Spanish grammar and vocabulary applicable to a broad range of medical situations; to ask basic medical questions in Spanish and to compile a complaint history; the medical terminology of body parts and systems of the body in Spanish; appropriate protocols and cultural norms that apply when treating people from a variety of Spanish-speaking countries. Prerequisite: SPAN—201 and SPAN—202. (ATTR: ARTS, CFJ, HSMR)

SPAN—301. Communication in Spanish I 3 credits

This foundational course approaches the study of Spanish with a special emphasis on reading, writing and speaking. Students analyze and read articles and short stories in Spanish, write thematic compositions through a peer and instructor review process, create a writing portfolio, review grammar, and participate in numerous discussions and presentations in Spanish. Prerequisites: SPAN—201, 202 or equivalent. (ATTR: ARTS, ISP, LACS)

SPAN—302. Communication in Spanish II 3 credits

A continuation of SPAN—301. Prerequisite: SPAN—201, 202 or equivalent. (ATTR: ARTS, ISP, LACS)

*****SPAN—305. Spanish Language Study Travel 3 credits**

This academically oriented course will be taught in Spanish and consist of coursework followed by an intensive travel study component in a selected Spanish-speaking country. Orientation meetings, research, lectures and discussions will prepare students for an informed field experience. Upon return, students present a project/research paper and portfolio based on their cultural, historical, socio-economic knowledge acquired in class and abroad. Students may repeat this course for credit if subject matter differs. Travel costs are paid in full by students. The cost varies each semester. This course will fulfill a language requirement, it will also count toward a major or minor in Spanish. Prerequisites: SPAN-202 and permission of instructor. (ATTR: ARTS, ISP, CFD, LALA, MULT, GLST, ILST)

SPAN—320. Introduction to Hispanic Literature 3 credits

In this course, students develop critical reading, writing and speaking skills. Students accomplish this by reading short stories, poetry, plays and novels, working on vocabulary, analyzing the readings, writing essays and speaking in Spanish in class. Literary texts from the 14th to the 21st century are used as a tool for students to understand sociopolitical, historical, and cultural contexts of Spain and Latin America. Prerequisite: SPAN—301. (ATTR: ARTS, GLST, ILST, ISP, LACS, SPLT)

SPAN—335. Pop Culture in the Spanish-speaking World 3 credits

This course taught in Spanish will focus on popular cultural production from Latin America, Spain and the Spanish-speaking communities in the United States and deal with questions of diversity and identity. Students will study and reflect upon the differences between contemporary high culture and popular culture utilizing various methodologies. Popular cultural material or media and genres may include magazines, newspapers, television, telenovelas, radio, commercials, blogs, performance, comics, graphic novels, political cartoons, film, street art, music, food, etc. In addition, students will become aware of the historical and social contexts in which popular culture has manifested and has become part of the global exchange and incorporate some of the ideas of important critical thinkers. Prerequisite: SPAN—301 or SPAN—302. (ATTR: GLST, ILST, MULT, LACS)

SPAN—340. Advanced Grammar 3 credits

The main goal of this course is to improve the students' grammatical knowledge in general, and more specifically, of the Spanish language and its usage. This will be accomplished through studying the principles of Spanish grammar, writing compositions, reading cultural articles and literary selections in Spanish from Spain and Latin America, and through oral practice. The course takes into consideration the differences in grammatical and lexical usage in the different countries where Spanish is spoken, thus providing an insight into cultural and linguistic differences. Emphasis is given to improving pronunciation and becoming familiar with linguistic terminology. Prerequisite: SPAN—301 and 320. (ATTR: ARTS, ISP)

SPAN—350. Spanish Civilization 3 credits

This course analyzes a variety of primary documents such as historical texts and images to understand the history of Spain from prehistoric times to the present. The course highlights how Spain is a true crossroads for culture as home to various cultural and religious groups (Catholics, Muslims and Jews) and as a country with strong regional identities. Contemporary themes of youth culture, tourism, immigration, and the development of democracy complement the study of artistic expressions such as painting, architecture, music and cinema. Prerequisite: SPAN—301. (ATTR: ARTS, GLST, ILST, ISP)

SPAN—360. Spanish American Civilization 3 credits

A survey of Latin American culture and civilization from pre-Hispanic days to the present. This course will focus on specific historical moments throughout Mexico, Central America, the Caribbean, the Southern Cone and the Andes, as well as on some works on post-colonial theory. It will also identify and analyze a diverse range of written and audio-visual cultural material that includes short stories, essays, films and music, among others. Prerequisite: SPAN—301. (ATTR: ARTS, GLST, ILST, ISP, LACS, MULT)

SPAN—400. Topics in Spanish 3 credits

This advanced special topics course explores literature and/or film and critical theory on a broad range of topics from the Spanish-speaking world. This course may be taken more than once with different content and it is intended for the advanced student in Spanish. Prerequisites: SPAN 320 or permission of instructor. (ATTR: ARTS)

*****SPAN—450. The Worlds of Don Quijote: Love, Madness and Enchanters 3 credits**

This course focuses on *Don Quijote* and its impact in Early Modern Spain's historical development and literary culture. Excerpts of Renaissance works that were influential to the creation of *Don Quijote* will also be studied along with transnational adaptations: Spanish and Latin American literary production, films, comics, and other artistic material that will contribute to a deeper understanding of this classical novel and its legacy on the contemporary world. Lectures, readings and class discussions are in Spanish. Prerequisite: SPAN—320. (ATTR: ARTS, GLST, ILST, ISP, SPLT, SPUL)

*****SPAN—495. Independent Study in Spanish 1 - 3 credits**

A Spanish major may work independently on a topic of special interest. The student consults with the professor with whom he/she decides on a study that will permit a definite accomplishment by the end of the semester. This study must be approved by the Department Head and the Dean of Liberal Arts. In a term paper or essay he/she is expected to demonstrate familiarity with the tools basic to his/her study, and an awareness of the methods appropriate to pursuing his/her interest. (ATTR: ARTS, ISP)

Classics

Latin

Description of Courses

LATN—101. Elementary College Latin I 3 credits

An intensive study of Latin grammar and vocabulary with emphasis on learning to read simple Latin. This is the first course for students offering less than two entrance units in Latin. A student must complete LATN—101 (or the equivalent) in order to register for LATN—102. (ATTR: ARTS)

LATN—102. Elementary College Latin II 3 credits

A continuation of LATN—101. Prerequisite: LATN—101 or permission of instructor. (ATTR: ARTS)

LATN—201. Intermediate Latin 3 credits

A course consisting of selections from representative classical authors. Important grammatical constructions are reviewed. This course is recommended for students who have completed Elementary Latin. (ATTR: ARTS)

LATN—250. Topics in Latin 3 credits

Study of a foundational level topic. Subject matters will be made public in the official announcements which precede registration. This course may be taken more than once with different content. Prerequisite: LATN—201 or permission of instructor. (ATTR: ARTS)

LATN—300. Advanced Topics in Latin 3 credits

Study of an advanced level topic. Subject matters will be made public in the official announcements which precede registration. This course may be taken more than once with different content. Prerequisite: LATN—201 or permission of instructor. (ATTR: ARTS)

LATN—495. Independent Study in Latin 1 - 3 credits

Qualified students are invited to pursue a special project in Latin of their own choosing, with the approval of the Department. (ATTR: ARTS)

Greek

Description of Courses

GREK—101. Elementary Greek I 3 credits

An intensive study of Ancient Greek grammar and vocabulary with practice in translating simple Greek. A student must successfully complete GREK—101 (or the equivalent) in order to register for GREK—102. (ATTR: ARTS)

GREK—102. Elementary Greek II 3 credits

A continuation of GREK—101. Prerequisite: GREK—101 or permission of instructor. (ATTR: ARTS)

GREK—201. Intermediate Greek 3 credits

This course consists of reading selections from representative authors of Classical Greek, for students who have completed elementary Greek. (ATTR: ARTS)

GREK—250. Topics in Greek 3 credits

Study of a foundational level topic selected on the basis of faculty and student interest. Subject matters will be made public in the official announcements that precede registration. This course may be taken more than once with different content. Prerequisite: GREK—201 or permission of the instructor. (ATTR: ARTS)

GREK—300. Advanced Topics in Greek 3 credits

Study of an advanced level topic selected on the basis of faculty and student interest. Subject matters will be made public in the official announcements that precede registration. This course may be taken more than once with different content. Prerequisite: GREK—201 or permission of the instructor. (ATTR: ARTS)

GREK—495. Independent Study in Greek 1 - 3 credits

Qualified students are invited to pursue a special project in Greek of their own choosing, with the approval of the Department Head. (ATTR: ARTS)

Classical Studies

Description of Courses

CLSS—105. The Greeks 3 credits

It has often been noted that the Western tradition stands upon two great pillars: the Greco-Roman and the Judeo-Christian traditions. This course will give the student a broad introduction into the culture and civilization of the Greek people and how they still influence us. Within the course students will study the broad lines of Greek history, the major literary figures and their works, the principal ideas and institutions that informed Greek society, the great achievements in art and architecture, Greek religious practice, and the ways in which the ancient Greeks live on into the present day and why they still command our attention. (ATTR: ARTS, CFH)

CLSS—110. The Romans 3 credits

It has often been noted that the Western tradition stands upon two great pillars: the Greco-Roman and the Judeo-Christian traditions. This course will give the student a broad introduction into the culture and civilization of the Roman people and how they still influence us. Within the course students will study the broad lines of Roman history, the major literary figures and their works, the principal ideas and institutions that informed Roman society, the great achievements in art and architecture, Roman religious practice, and the ways in which the ancient Romans live on into the present day and why they still command our attention. (ATTR: ARTS, CFH)

CLSS—210. Women in Antiquity 3 credits

A study, using a variety of methods and differing kinds of material including tragedies, comedies, lyric poetry, historical writings, lawcourt speeches, funeral stele, vase and fresco paintings, sculpture, medical treatises, etc., to recover as clear a reflection of the feminine voice from the Greco-Roman past as possible and to understand not only the role or position of women in antiquity, but the very meaning of “woman” for the ancients. Among the works by women writers that are extant we may include the poets Sappho, Corinna, Erinna, Nossis, and Sulpicia; early Hellenistic treatises attributed to Pythagorean women; private correspondence; Egeria’s 5th-cent. C.E. travel diary. (Same as WSTU—200) (ATTR: ARTS, CAH, CFJ, WSTU)

CLSS—220. Greek Literature in Translation 3 credits

A survey of the masterpieces of Greek literature in English translations from the 8th century B.C. to the Roman period, which may include selections from the Homer’s *Iliad* and *Odyssey*, Hesiod’s *Theogony* and *Work and Days*, the tragedies of Aeschylus, Sophocles, and Euripides, the histories of Herodotus and Thucydides, the comedies of Aristophanes and Menander, the poetry of Archilochus, Sappho, Pindar, Callimachus, and Theocritus, the works of Plato and Aristotle, the oratory of Demosthenes and Lysias, the works of the New Testament, and the biographies of Plutarch. (Same as ENGL—051) (ATTR: ARTS, CAL, ELIT, ENUL, CFH)

CLSS—225. Latin Literature in Translation 3 credits

A survey of the masterpieces of Latin Literature in English translations from the Republic to the Late Empire, which may include selections from the comedies of Plautus and Terence, the histories of Livy, Sallust, and Tacitus, the commentaries of Julius Caesar, the poetry of Catullus, Horace, Vergil and Ovid, the biographies of Suetonius and Tacitus, the speeches and philosophical works of Cicero, Lucretius’ *De Rerum Natura*, the comic novels of Petronius and Apuleius, and the *Confessions* of Augustine. (Same as ENGL—055) (ATTR: ARTS, CAL, ELIT, ENUL, CFH)

CLSS—240. Greek Archaeology and Art 3 credits

An introductory study focusing on the achievements in Greek art, including architecture, painting, pottery, and sculpture, as well as advances in science, technology and engineering, from the Minoan-Mycenaean period to the Hellenistic Age. The course will also highlight major archaeological sites, which may include Mycenae, Troy, Knossos, Pylos, Tiryns, Athens, Olympia, Delphi, and Ephesus, among many other possibilities. (ATTR: ARTS, CAA, CFH)

CLSS—245. Roman Archaeology and Art 3 credits

An introductory study focusing on the achievements in Roman art, including architecture, painting, pottery, and sculpture, as well as advances in science, technology, and engineering, from the foundation of Rome to the Late Empire. The course will also highlight major archaeological sites in Europe, North Africa, and the Middle East, which may include, the Roman Forum and Colosseum, the Imperial baths, Pompeii, Herculaneum, Hadrian’s Wall, Leptis Magna in Libya, Jerash in Jordan, Caesarea in Israel, Baalbek in Lebanon, among many others possibilities. (ATTR: ARTS, CAA, CFH)

***CLSS—250. Topics in Classics 3 credits

Study of a foundational level topic selected on the basis of faculty and student interest. Subject matters will be made public in the official announcements that precede registration. This course may be taken more than once with different content. Prerequisite: permission of instructor. (ATTR: ARTS)

CLSS—260. Gods and Goddesses 3 credits

A study in English of the Greco-Roman myths that treat the origin of the world, the generations of the gods, the creation of the human race, and the relationship between mortals and immortals. Also examined will be ancient notions of worship, including the importance of sacrifice and mystery cults. Different, contemporary, theoretical perspectives will be employed to interpret the meaning conveyed by these stories both for the ancients and for the modern world and to evaluate their force in the development of Greek and Roman culture, literature, and art and their subsequent influence on later peoples. (ATTR: ARTS, CAR, CFD)

CLSS—265. Heroes and Heroines of Saga 3 credits

A study in English of the Greco-Roman myths that deal with the heroes and heroines of the Greek royal houses, of the Trojan War, of the journey home; the legends involving Theseus, Heracles, Perseus, and Jason; certain local traditions of myths; the transformation of the Greek heroic tradition among the Romans, in particular that of the Trojan Aeneas; theoretical perspectives will be used to understand ancient conceptions of heroism and how they have influenced the later tradition. (ATTR: ARTS)

CLSS—270. Classical Roots of English 3 credits

This course is intended to enhance a student's command of English vocabulary and expression. It has been estimated that over 60% of our words derive ultimately from Latin or Greek. This study will explore the etymology and evolution of English word roots derived from the classical languages. We will also study the etymology of the basic vocabulary used in the arts, politics, medicine, law and the sciences. The course will also strengthen a student's performance in the verbal sections of pre-professional and graduate exams, such as the GRE exam. (ATTR: ARTS)

CLSS—275. Roots of Medical Terminology 3 credits

Designed for students who are pursuing a career in one of the medical fields, this course will focus on the study of the Latin and Greek roots that form the basis of most medical and scientific vocabulary. The practical aim of the course is to allow the student who is preparing for one of the medical professions to enhance greatly the acquisition of medical terminology. This course will also investigate the origin, ideas, and practice of ancient science and medicine. (ATTR: ARTS, CFN, HSMR)

***CLSS—300. Advanced Topics in Classics 3 credits

Study of an advanced level topic selected on the basis of faculty and student interest. Subject matters will be made public in the official announcements that precede registration. This course may be taken more than once with different content. Prerequisite: permission of instructor. (ATTR: ARTS)

CLSS—305. Greek Civilization 3 credits

A survey of the social, cultural, and political developments of the Ancient Greeks, beginning with the Minoan-Mycenaean and continuing from the Homeric through the Hellenistic Age. Prerequisites: Any HIST 100-level course. (Same as HIST—335) (ATTR: ARTS, CAH, HEUR, PNH, CFD)

CLSS—306. Roman Civilization 3 credits

A survey of the social, cultural, and political development of Rome from its foundation to the fall of the Empire. Prerequisites: Any HIST 100-level course. (Same as HIST—336) (ATTR: ARTS, CAH, HEUR, PNH, CFD)

CLSS—310. Alexander the Great and the Hellenistic Age 3 credits

Alexander succeeded to the throne of Macedonia (Greece) at the age of twenty. He quickly led his united Greek forces eastward and within twelve years his empire stretched from Greece in the west to India in the east. Today, Alexander the Great is recognized by military experts as having been one of the most gifted military strategists in history. First, close attention will be paid to Alexander the Great's military career but we shall also examine Alexander the man; his character, motives, and philosophical goals. Second, his early death in 323 BCE marked the birth of the Hellenistic Age, an age that profoundly influenced the history of the western world through its contact with the Roman empire. We shall devote approximately half the course to the study of the achievements of the Hellenistic Age, especially the Hellenistic Ptolemaic dynasty in Egypt, whose last ruler was Cleopatra VII. A variety of resources will be used including primary and secondary sources, together with slide presentations. (ATTR: ARTS, CAH, CFD)

CLSS—315. Augustus and the Augustan Age 3 credits

By the mid-1st Century BCE, Rome had become the most powerful military and political force in the ancient world. At that time, Roman territory stretched from Spain in the west to lands bordering ancient Mesopotamia in the east. This empire had been won by Rome while under a republican form of government that had existed for over 400 years. However, at the very point at which Roman power reached its zenith, its republican government collapsed, giving way to rule by Rome's first emperor, Augustus. In this course we will study in detail the political and social conditions that prevailed during this pivotal era in which Rome was transformed from a republic to a principate. In addition, we will study the literature, art, and architecture of the Augustan Age. A variety of resources will be used including primary and secondary sources, together with slide presentations. (ATTR: ARTS, CAH)

CLSS—320. Greek Tragedy 3 credits

A study in English of the masterpieces of Aeschylus, Sophocles, and Euripides, through a close reading of individual works of the tragedians and the fruits of modern scholarship. Among the subjects treated will be the

history and origins of Greek tragedy, the physical space of the ancient theater, aspects of performance (the tragic mask, acting techniques, etc.), the location of individual play within their historical context, and the later influence of these plays. (ATTR: ARTS, CAL, CFJ)

CLSS—325. Myth and Literature 3 credits

A close reading of selections from Ancient Greek and Roman narratives and poetry, as well as later works of literature that are influenced by myths, mythical themes, and archetypal figures drawn from these earlier works. This course traces the literary genealogy of mythical elements in later works such as *The Inferno* by Dante, *Paradise Lost* by John Milton, *Antigone* by Jean Anouilh, and *Ulysses* by Tennyson, among others. Special focus is given to these revisions as manifestations of changing cultural and historical perspectives. (ATTR: ARTS, CFH)

CLSS—330. Ancient Epic 3 credits

A study of the epic narratives of Greece and Rome, including among others, Homer's *Iliad* and *Odyssey*, Apollonius' *Argonautica*, Vergil's *Aeneid*, and Ovid's *Metamorphoses*. A variety of interpretive approaches will be used in a close reading of the primary texts. The course will focus on the development and transformation of the epic tradition throughout the course of antiquity, its shifting focus, themes, values, methods, cultural assumptions, and its legacy to western civilization. (ATTR: ARTS, CAL, CFJ)

CLSS—340. Late Antiquity 3 credits

The study of Late Antiquity will investigate the fundamental period of transition from the classical to medieval world as it was experienced across the Mediterranean. Spanning the crises of the Late Roman Empire to its disintegration, it will encompass diverse areas of inquiry: the establishment of Christianity within the Roman empire; the barbarian migrations and the ensuing destabilization of the Roman Empire in the west; the emergence of the papacy and the rise of the Frankish king, Charlemagne as a new emperor; the continuity of the Roman Empire in the east through the successors of Augustus who ruled the "Byzantine" Empire from Constantinople; the emergence of the Islamic caliphate and the founding of Bagdad. Prerequisites: Any HIST 100-level course. (Same as HIST—337.) (ATTR: ARTS, CFD, HEUR, MRST, PNH)

CLSS—360. The Spartans 3 credits

Students will study the history and culture of Sparta from its beginnings ca. 1,000 BCE to its eventual collapse in the 4th Century BCE. The name Sparta has survived in the cultural memory of the west for more than 2,000 years in no small part due to its reputation for heroism and military might. We will examine the character of Spartan society and its emphasis on the heroic ideal. Students will learn how this ideal evolved, and how it enabled Sparta to become the most powerful state in ancient Greece. We will learn that Sparta's truly unique military, social and political systems came at a heavy price; this aspect of Spartan culture will constitute another major focus of the course. Our examination of Sparta and its history will be based on evidence derived from primary sources, archaeology, art and secondary sources. Prerequisites: Any HIST 100-level course. (Same as HIST—338) (ATTR: ARTS, HEUR, PNH)

CLSS—495. Independent Study in Classics 1 - 3 credits

Qualified students are invited to pursue a special project in Classics of their own choosing, and with the approval of the Department. (ATTR: ARTS)

Philosophy Department

Chair: Dr. Joshua Alexander, Assoc. Prof.
Prof.: Dr. Raymond Boisvert Dr. John S. Burkey,
Dr. Jennifer McErlean
Asst. Prof.: Dr. Anthony Manela
Visiting Asst. Prof.: Dr. Jeremiah Carey

Philosophy teaches students to think clearly and critically about the most important questions of life. We explore not only how things are, but also how they could have been and how they ought to be. Philosophy majors and minors routinely score high on all standardized tests and go on to successful careers in business, education, government, law, medicine and public policy. Our department explores contemporary philosophical questions through the lens of the history of philosophy. We have broad research and teaching interests in the Ancient and Medieval Philosophy, Modern Philosophy, and a variety of topics in American Pragmatism, Analytic Philosophy, and Continental Philosophy. We are home to the Symposium of Living Philosophers - a unique undergraduate educational experience, where students have the opportunity to take a yearlong seminar on the work of one of the central figures in contemporary philosophy. Students have the opportunity to work directly

with the featured philosopher, as well as with a variety of guest lecturers from universities around the country. Featured philosophers have included: Richard Rorty, Michael Walzer, John Caputo, Anthony Appiah, and Judith Butler. Our students achieve an understanding of the central figures and texts in the history of philosophy, the four traditional theories of ethics together with an understanding of the nature of justice, and the formal techniques used to evaluate arguments. They are taught to carefully read, comprehend and compress written material, to compare and contrast a range of positions on a given topic, to defend a specific position on a topic, and to write clearly and in an organized fashion. And they develop the ability to apply philosophical positions and arguments to other academic disciplines and to matters of public interest.

Requirements for the Major. B.A. in Philosophy (33.000 credits):

PHIL 101 Philosophy and the Human Being* **OR**
 PHIL 103 Reason and Argument* 3 cr.

*Only one of these may count towards the major.

PHIL 155 Logic 3 cr.
 PHIL 210 Ethics 3 cr.
 PHIL 290 Greek and Roman Philosophy 3 cr.
 PHIL 294 Early Modern Philosophy 3 cr.

One History of Philosophy course from: 3 cr.

PHIL 342 Medieval Philosophy
 PHIL 346 Late Modern Philosophy
 PHIL 348 Existentialism
 PHIL 350 Philosophical Influences on Theology
 PHIL 400 Philosophy of Language and Mind
 PHIL 420 Classic American Philosophy
 PHIL 440 Phenomenology

Either PHIL 450 and PHIL 490: **OR** 3 cr. each

PHIL 491 Symposium on Living Philosophers 6 cr.

(PHIL 491 must be taken for two semesters. The student earns three credits per semester, six total over the one year.)

Philosophy Electives 9 cr.

*Electives to be selected in consultation with departmental advisor.

Requirements for the Minor, Philosophy (18.000 credits):

PHIL 101 Philosophy and the Human Being* **OR**
 PHIL 103 Reason and Argument* 3 cr.

*Only one of these may count towards the minor.

PHIL 155 Logic 3 cr.
 PHIL 210 Ethics 3 cr.

Philosophy Electives* 9 cr.

*Electives to be selected in consultation with departmental advisor.

In addition to our major and traditional minor, students may opt to take a philosophy minor in *Science, Technology, and Value*. This minor track is specifically designed to appeal to students with major fields of study in the physical sciences, social sciences, and business professions; and encourage study of the moral and social implications of new technologies and ways of doing business. It is recommended that students sequence courses so that they take PHIL-210 prior to PHIL-315.

Requirements for the Minor, Science, Technology, and Value (18.000 credits):

PHIL 101 Philosophy and the Human Being **OR**
 PHIL 103 Reason and Argument 3 cr.

One Natural Sciences (STVN) course from:

BIOL 020, 025, 110, 140

CHEM 010, 025, 110

CSIS 110

ENVA 015, 020, 100, 150

PHYS 010, 055, 080, 110, 130

3 cr.

One Social Science (STVS) course from:

ECON 101, 102

POSC 150, 178

PSYC 100

SOCI 101, 120, 130, 140

3 cr.

PHIL 210

Ethics

3 cr.

PHIL 315

Ethics of Science and Technology

3 cr.

Philosophy Elective (STVP) course from:

PHIL 225 Social and Political Philosophy

OR

PHIL 270 Philosophy of Law

OR

PHIL 330 Philosophy of Science

OR

PHIL 333 Special Topics*

OR

PHIL 450 Great Figures*

OR

PHIL 490 Seminar*

OR

PHIL 491 Symposium on Living Philosophers *

3 cr.

*Particular section must be approved by Department.

Description of Courses

All students must take the College core disciplinary requirement in philosophy, which can be fulfilled by either PHIL—101, Philosophy and the Human Being, or PHIL-103, Reason and Argument. Either of these serves as the prerequisite for all other courses in philosophy, but only one of the disciplinary courses can count towards a major in Philosophy. *It is suggested that PHIL 101 or 103 be completed by the end of the sophomore year.*

PHIL—101. Philosophy and the Human Being 3 credits

An introduction to philosophy focusing on various themes pertaining to human existence. The subjects treated include knowledge, community, beauty, love, freedom, and justice. Also examined are questions concerning the body and the soul, the meaning of life and death, and the individual's relation to God. The figure of Socrates is prominent, but philosophers from a variety of historical periods and traditions are also studied. (ATTR: ARTS, CDP)

PHIL—103. Reason and Argument 3 credits

What makes one argument acceptable and another unacceptable? What makes one inference reasonable and another unreasonable? Philosophers employ a variety of methods for studying argument and inference, and this course will introduce students to some of these methods. Students should come away from the course with a better understanding of the nature of argumentation and our capacity for reason, along with strong skills in critical thinking that can be applied to personal, intellectual, and academic pursuits. (ATTR: ARTS, CDP)

PHIL—155. Logic 3 credits

This course is an introduction to logic for students of contemporary philosophy and its allied fields (mathematics, computer science, political science, social and cognitive science, etc.) It is intended for beginning students and covers: basic formal approaches to standard propositional and predicate logic, together with philosophically important extensions of standard deductive logic; basic formal approaches to inductive logic; and elementary philosophy of logic. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS, PLG)

PHIL—202. Philosophy and Reality 3 credits

The most comprehensive and fundamental questions about reality are pursued in this course. Examples are the origin and makeup of the cosmos, the existence of such "things" as minds, God, freedom, evil, space, and time. The course explores concepts that philosophers, scientists, and theologians rely on to express their respective accounts of such enduring questions. These topics are pursued through both historical and contemporary readings. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS, CAP, CFH)

PHIL—210. Ethics 3 credits

A philosophical study of ethical questions such as: How are we to live? What kind of people should we become? Typically examines virtue ethics, Kantianism, natural law theory, justice and rights theories, and utilitarianism. Applies theories to contemporary moral and political concerns. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS, CAP, CFJ, FSPH, HSMR, ISP)

PHIL—215. Philosophical Perspectives on Diversity 3 credits

The course examines the role that human differences such as race, ethnicity, gender, disabilities, sexual orientation, and class have in the philosophical conception of the human being from ancient to modern times. Among the themes that may be studied are master and slave, human and inhuman, being and non-being, the visible and the invisible, whiteness and darkness, male and female, the normal and the perverse. The course also wrestles with contemporary criticisms of binary thinking that divides the human family into an “us” and an “other”. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS, CFD)

PHIL—220. Philosophies of Love 3 credits

This course examines an idea that has fascinated philosophers for all time. The subject of love will be studied historically, with readings from ancient, modern, and contemporary sources. Literature and films may be used along with philosophical texts. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS, CAP)

PHIL—225. Social and Political Philosophy 3 credits

This course introduces students to the various formulations that social and political philosophies have taken as humans attempted to shape their cultural lives in terms of some idea of the good. Since “justice” is often the formulation for the highest social/political good, the course will emphasize this concern. Major philosophers from various times and cultures will be studied. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS, CFJ, STVP)

PHIL—240. Philosophy of Art 3 credits

This course in Aesthetics explores the nature of art and its relationship to society, truth, and human experience. Questions to be explored include: the meaning and place of art; its role in education; its relations to reality; and the nature of beauty. Examples will be drawn from a variety of artistic media, including painting, sculpture, dance, film, photography, music, literature, drama, architecture, and conceptual art. Thinkers typically considered are Plato, Aristotle, Kant, Schiller, Hegel, Nietzsche, Dewey, Benjamin, Danto, and Cavell. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS, CAP, CFD, FILM)

PHIL—260. Philosophy of Religion 3 credits

An examination of fundamental questions about the nature and significance of religion. Central issues to be studied are: religion as reasonable form of life; religious skepticism; pluralism in religion; arguments for the existence of God; the impact of science on religious belief; the place of ritual and symbolism in human life; and religious language. Traditional and contemporary texts will be read. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS, CAP)

PHIL—270. Philosophy of Law 3 credits

This course provides a general introduction to philosophical questions concerning law. Among these questions are: Why does law exist? Can laws be broken morally? Why should anyone obey laws? What kinds of laws are there and how do they differ from rules and regulations? What makes punishing criminals right? These issues will be examined through a variety of writings from great historical figures such as Plato, Aquinas, Locke, and Mill, and contemporaries like Hart and Dworkin. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS, CAP, JMN, CFJ, STVP)

PHIL—285. Philosophy and Gender 3 credits

This course examines the relationship between, and the making of, sex and gender. It tackles the question of how we are and become sexual beings, and critically explores the fluid boundary between the biological and the social. Is gender a cultural construction? Or are there essential differences between women and men; ones that we should embrace rather than reject? If gender is made, can it be unmade? Are there two or multiple genders? Is our gender located in the body or is it psychological? Major historical figures as well as contemporary feminist philosophers will be studied. Examples from film and media may be used to stimulate discussion. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS, CFD, WSTU)

PHIL—290. Greek and Roman Philosophy 3 credits

Explores the origin and sequence of ancient philosophy from the pre-Socratics through Socrates, Plato and Aristotle, and Hellenistic and Roman successors. Emphasis on careful study of fragments from early Greek

thinkers, Platonic dialogues, major works by Aristotle, and later Epicurean and Stoic writings. Questions elucidate the discovery of nature, being, becoming, and areas of human knowledge and ethics. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS, CFH, PHY)

PHIL—294. Early Modern Philosophy 3 credits

European philosophy of the 17th and 18th centuries. Main figures include Descartes, Hobbes, Spinoza, Locke, Leibniz, Hume, and Kant. Typical questions pertain to the method proper to philosophy; the origins, nature, and limits of human knowledge; modern subjectivity and selfhood; and the nature of moral thinking and acting. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS, CFH, PHY)

PHIL—300. Philosophy and Knowledge 3 credits

Epistemology is the study of knowledge, justification, and rational belief. Topics may include: skepticism; theories of knowledge and justification; the structure of knowledge and justification; sources of epistemic normativity; the value of knowledge; rationality and epistemic responsibility; testimony, memory, and perception; and, rationalism, empiricism, and pragmatism. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS)

PHIL—315. Ethics of Science and Technology 3 credits

Through science and technology humans are creating a new world which will not only be decided by scientific knowledge but will depend on views about good and bad, right and wrong. This course may focus on a variety of different topics, areas, or issues, such as nanotechnology, climate change, military or reproductive technologies; but all courses will closely examine some scientific change or field and its consequences from the perspectives of philosophical ethics. Prerequisites: PHIL—101 or PHIL—103. (ATTR: ARTS, CF)

PHIL—320. Philosophy of Nature 3 credits

Examination of the idea of nature in a historical and contemporary perspective, including theories of humanity's place in and transformation of the natural world. Some points of emphasis are the legacy of ancient cosmology, the development of the scientific view of nature, modern technology, and current ecological theory. Prerequisite: PHIL—101 or PHIL—103. (Same as ENVA—320). (ATTR: ARTS, CAP, CFN)

PHIL—330. Philosophy of Science 3 credits

This course examines various aspects of science from a philosophical perspective. Topics may include: scientific explanation; causation; induction, confirmation and underdetermination; realism and the nature of theories; scientific change and rationality; and science, culture, and society. Thinkers to be considered may include Hempel, Popper, and Kuhn. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS, CAP, CFN, STVP)

PHIL—333. Special Topics in Philosophy 3 credits

An opportunity to explore areas and topics not covered in the regular philosophy offerings, depending on student and faculty interest. Examples include "Philosophy and Psychology" and "The Morality of War and Killing." This course may be taken more than once with different content. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS)

PHIL—342. Medieval Philosophy 3 credits

Medieval Philosophy is the study of foundational ideas discussed by thinkers such as Augustine, Anselm, Aquinas, and Bonaventure. Also included are a look at Islamic and Jewish philosophers who took the ideas of Aristotle and used them to understand God, humans, and the world. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS, PHY, CFH)

PHIL—346. Late Modern Philosophy 3 credits

European philosophy of the 19th century. Main figures are Hegel, Marx, Kierkegaard, and Nietzsche. Typical questions pertain to the role of history in shaping our self-understanding in science, religion, and politics; and the emergence of radical critiques of modern culture. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS, CFH, PHY)

PHIL—348. Existentialism 3 credits

The philosophy of 20th century Existentialism and its 19th century origins. Main figures include Kierkegaard, Nietzsche, Heidegger, Marcel, Camus, Sartre, and Beauvoir. Typical questions pertain to freedom, death, responsibility, absurdity, and the meaning of existence in theistic and atheistic contexts. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS, CAP, PHY, CFH)

PHIL—350. Philosophical Influences on Theology 3 credits

A survey of selected philosophers and philosophical schools of thought and their influence on Christian Theology, Christian beliefs and practices. Selection will generally follow a time period, e.g. Ancient, Modern and Contemporary. This course may be repeated for credit when the selected material differs. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS, PHY)

PHIL—400. Philosophy of Language and Mind 3 credits

This course covers two areas central to the development of analytic philosophy in the 20th century: the philosophy of language and the philosophy of mind. Topics in the philosophy of language may include: truth and meaning; speech acts; reference and descriptions; names and demonstratives; propositional attitudes; metaphor; and interpretation. Topics in the philosophy of mind may include: the mind-body problem; mental causation; mental content; innateness and modularity; and associationism and connectionism. Prerequisite: PHIL—101 or PHIL—103.(ATTR: ARTS, PHY)

PHIL—401. Internship in Philosophy 1-3 credits

Internships in philosophy, which are open to all majors, can be taken as early as one's sophomore year. Students will work with local organizations that stress philosophical components – such as environmental and social justice, aesthetic well-being, freedom and its limits, and questions relating philosophy to the sciences – in their mission or practice. Internships typically combine traditional academic work with onsite field experience to enable students to increase their understanding of and ability to implement theoretical notions and views. Interested students should submit an application to the department during the semester preceding the proposed placement; applicants will be screened and accepted based on academic record and readiness to function effectively in the field. For philosophy majors and minors, no more than 6 Internship credits may count towards satisfaction of the major or minor requirements; this course may be taken more than once with the permission of the Internship Supervisor. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS, INT)

PHIL—420. Classic American Philosophy 3 credits

"Classic American Philosophy" identifies a movement in which Americans declared their independence from European philosophies. Pragmatism is the most famous school, but there were other developments as well. This course studies some of the key philosophers who contributed to an American philosophical voice. Typical of the philosophers studied: Pierce, James, Dewey, Addams, Santayana, Du Bois, Royce, Whitehead, Rorty. Prerequisite: PHIL—101 or PHIL—103. (ATTR: AMSC, ARTS, CFH, PHY)

PHIL—440. Contemporary Continental Philosophy 3 credits

The major movements of the 20th century European thought such as phenomenology, hermeneutics, structuralism, deconstruction, feminism, and psychoanalysis. Major figures include Husserl, Heidegger, Arendt, Gadamer, Levinas, Foucault, Derrida, Deleuze, Irigaray, and Kristeva. Typical questions pertain to problems of consciousness, language, embodiment, power, and otherness. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS, PHY)

PHIL—450. Great Figures in Philosophy 3 credits

This seminar is devoted to the study of individual thinkers whose work has contributed to shape the world's philosophical traditions. Based on primary texts, its goal is to reconstruct the genesis of key ideas, the lines of continuity and rupture in the corpus of a single author, and the impact those have had on other thinkers. Students in this seminar will be responsible for producing a substantial research paper evidencing philosophical methodology and knowledge. Students may take this course for credit more than once if the content differs. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS, CFH)

PHIL—490. Seminar 3 credits

This class may feature a special philosophical problem, a philosophical tradition, or the works of an individual philosopher selected for intensive study, with special emphasis on primary sources. Students in this course will be responsible for presenting material to the class and for producing a substantial research paper evidencing philosophical methodology and knowledge gained from courses throughout the discipline. Prerequisite: PHIL—101 or PHIL—103. (ATTR: ARTS)

PHIL—491. Symposium on Living Philosophers 3 credits

This is a yearlong seminar extending through the Fall and Spring semesters and focusing on the work of a major contemporary philosopher. The course is taught by two Siena faculty members, and includes the regular participation of an external scholar, public lecture series, and visitations by the featured philosopher that culminate in a public panel discussion during the spring semester. Students are expected to produce a substantive research paper, give oral presentations, and belong to a community of research with faculty. The

course entails six credits (three credits repeatable one time for full credit), and can be counted as the seminar requirement towards majoring in philosophy. Permission of the program directors is required to participate. The Symposium may be taken for credit more than once. (ATTR: ARTS)

PHIL—495. Directed Research 1 - 3 credits

A qualified student, with the approval of a faculty mentor and the department, may work under close supervision to join a research project conducted by a faculty member. Participating in research will include activities such as the following: conducting extensive library research, providing annotated summaries, attending local colloquia, reviewing manuscripts. Students will be required to keep a log of their activities and to prepare a narrative report upon completion of the semester. This course can be taken only on a pass/fail basis. (ATTR: ARTS)

PHIL—499. Independent Study 1 - 3 credits

Open to juniors and seniors who wish to work independently on a topic of special interest, with the approval of an instructor and the department. The topic will be pursued through private discussion, independent reading, an extensive written report, and an oral examination by two members of the department. (ATTR: ARTS)

Political Science Department

Chair: Dr. Daniel Lewis , Assoc. Prof.

Prof.: Dr. Leonard M. Cutler, Dr. Vera Eccarius-Kelly

Assoc. Prof.: Dr. Laurie Naranch (sabb. Sp. '18) , Dr. Ausra Park

Asst. Prof.: Dr. John Collens, Dr. Salvatore Lombardo

The Political Science curriculum provides students with a comprehensive understanding and appreciation of the study of politics. Students will obtain basic knowledge within and across the principal fields of the discipline; think critically about the enduring issues of politics while studying political institutions, processes, behaviors, attitudes and value systems; and develop a variety of research skills.

Students who major in Political Science or who complete substantial coursework in the department will have a foundation for future careers or graduate study in such areas as law, government service, public policy and administration, international affairs, teaching, journalism, and public, private and non-profit service sectors. Internships, independent study projects and honors courses provide students with in-depth learning opportunities. The program also serves as a basis for knowledgeable and concerned citizenship for those who choose not to concentrate in political science.

Requirements for the Major, B.A. in Political Science (36.000 credits):

POSC 100	Contemporary U.S. Politics	3 cr.
POSC 130	Political Theory	3 cr.
POSC 140	Comparative Politics	3 cr.
POSC 150	World Politics	3 cr.
POSC 178	Political Research I	4 cr.
POSC 182	Political Research II	4 cr.
POSC 497	Political Science Capstone Experience	4 cr.
Political Science Electives		12 cr.

Students complete the Portfolio Review with their advisor in the spring semester of their sophomore year.

Requirements for the Minor, Political Science (18.000 credits):

2 courses at the introductory level from POSC 100 through 180	6 cr.
4 courses at the elective level from POSC 205 through 499	12 cr.

A Political Science Internship may substitute for one elective course.

A Washington Semester may substitute two of POSC 790 through POSC 797 for up to two courses at the elective level.

Description of Courses

POSC—100. Contemporary U.S. Politics 3 credits

This course is an overview of the major institutions and processes of the American political system. Both formal (i.e., Congress, the Presidency, and the Judiciary), and informal (e.g., political parties, interest groups, the media,

etc.) institutions will be covered. It is designed to help the students not only acquire a basic knowledge of American government, but also develop the ability to critique and analyze it. (ATTR: AMSB, ARTS, CAS, CDS)

POSC—130. Political Theory 3 credits

Political theory provides conceptual clarification evaluating what is just in the context of power in political life. This course introduces you to the field of political theory by focusing on social justice concepts such as equality, freedom, rights, power, law, diversity, and morality. In this course, we will approach political theory through attention to: 1. the historical location of ideas, 2. the literary or rhetorical nature of our texts, and 3. matters of contemporary relevance for thinking about political experiences today. We will read both classics in the field as well as important contemporary thinkers. (ATTR: ARTS, CAP, CFJ)

POSC—140. Comparative Politics 3 credits

An introductory course establishing comparative models of political systems focusing upon socio-political organization, political socialization, decision-making and public policy in selected states. (ATTR: ARTS, CAS, CFD, ISP, MCCP)

POSC—150. World Politics 3 credits

A study of the interactions between members of the international system to provide for military, economic, environmental, and social security. Concepts such as power, international law, international organization, human rights, sustainable development, collective security, and national security are examined. (ATTR: ARTS, CAS, CFJ, GLST, ILST, ISP, STVS)

POSC—178. Political Research I 4 credits (3 lecture, 1 lab)

This course is the first part of a two course research methods sequence. It provides an overview of the political science discipline, its evolution, and its subfields. Students are introduced to the systematic, empirical approach to the study of politics, and are alerted to the ethical issues that may arise when doing social science research. In this course students are also introduced to various qualitative approaches to data collection and analysis. Three hours lecture, one hour lab. Lab fee. (ATTR: ARTS, STVS)

POSC—180. Political Research 4 credits

Examines assumptions of major theoretical approaches and implications for empirical research in Political Science including concept formation, survey and research design, and data analysis. Laboratory required one hour per week. (ATTR: ARTS)

POSC—182. Political Research II 4 credits

This course is the second part of a two course research methods sequence. It includes in-depth coverage of several quantitative approaches to political science research. Particular attention will be given to survey research, experiments and quasi-experiments, and the use of aggregate data. A broad range of descriptive and inferential statistics techniques are also covered in this course. Prerequisite: POSC-178. (ATTR: ARTS, INRM)

POSC—205. State and Local Government 3 credits

An examination of American state and local political systems, emphasizing such topics as federalism and intergovernmental relations, federal grant-in-aid systems, the state gubernatorial, legislative and judicial process, local political systems, and public policies of state and local governments. Prerequisite: Sophomores or above. (ATTR: AMSB, ARTS, CDS)

POSC—218. Women and Politics 3 credits

This course examines the role of women in politics in terms of the broad political questions of participation, political socialization, social movements, and public policy. Prerequisite: Sophomores or above. (ATTR: ARTS, CFD, WSTU)

POSC—235. Russia and Post-Communist Politics 3 credits

A study of the political cultures and institutions of the newly independent states that were once part of the Soviet empire. The course includes discussions of modernization and adaptation as well as problems of ethnicity, race, and political socialization. (ATTR: ARTS, ISP, MCCP)

POSC—250. International Organizations 3 credits

Purposes and principles of the United Nations and other regional and global international organizations with politics, structure, voting, and policies of member states explored. (ATTR: ARTS, GLST, ILST)

POSC—257. Terrorism: Causes and Cures 3 credits

This course will examine the evolution of terrorism, its causes, perpetrators, and methods. It will also evaluate the various national and international methods used for dealing with terrorism. (ATTR: ARTS, ILST)

POSC—260. Public Administration 3 credits

The course has four key objectives: First, to give students an overview of the intellectual heritage of public administration and decision making theory, federalism, bureaucratic power, administrative ethics and reforms. Second, to make students familiar with the public policy process, particularly with policy implementation. Third, to convey the basic tools and knowledge of the profession, especially budgeting, personnel, management and leadership. Finally, to familiarize students with current and possible future debates within public administration, including privatization, devolution, democratizing decision making and the global economy. Prerequisite: POSC—100 or Juniors and above. (ATTR: ARTS, HSMR)

POSC—265. Public Policy 3 credits

Using a broad conception of public policy as actions to address problems faced by the public, this course examines the outputs and decision-making processes of government and non-profit organizations at the local, state and national levels. It will introduce students to foundational theories and concepts of public policy. In addition, students will study applied public policy analysis and evaluation, developing the skills necessary for careers in public policy, public administration, community development, and politics. Prerequisite: Sophomores or above. (ATTR: ARTS, FSPS, HSMR)

POSC—270. European Politics 3 credits

This course is designed as an analysis of political institutions in Western Europe. Topics to be addressed include the impact of the welfare state and dilemmas of governing in post-modern and post-industrial societies, as well as problems of race and ethnicity. Some familiarity with parliamentary systems or other political cultures would be a helpful background for interested students. (ATTR: ARTS, ISP)

POSC—275. Asian Politics 3 credits

The course examines the history, cultural, political, economic forces which inform the politics key Asian states and their relations with the rest of the world. The course will examine such issues such as economic development, international trade, human rights, political organization, environment, and national security which impact these countries' domestic and foreign policies. (ATTR: ARTS, ISP, MULT)

POSC—308. Film and Politics 3 credits

Film has mass appeal and is readily accessible to most people, giving them a scope of influence few other media have. In this course we will treat films as texts (a text being a "coherent, delimited, comprehensible structure of meaning") subject to interpretation in terms of political theory. In particular, we will read these texts for what they say about the politics of the human in local and global situations. (ATTR: ARTS, FILM, GLST, ILST, MULT)

POSC—310. Interest Group Politics 3 credits

A critical evaluation of the impact of interest group politics on the American policy-making process. The course includes a study of the various theories of the power of interest groups, the formation and development of interest group organizations and movements and the organizational maintenance of interest groups. Also, the course examines the roles interest groups play in shaping public attitudes, influencing campaigns and elections and lobbying political institutions and officials. Students should have a working knowledge of American government. Prerequisite: Sophomores or above. (ATTR: ARTS, FSPS)

POSC—313. American Political Parties 3 credits

An analysis of the development, organization and functions of American Political Parties. The course examines political parties as organizations, the party in the electorate and the party in government. Particular attention is paid to how well political parties perform the linkage role between the American people's preferences and the content of governmental policy decisions. Students should have a working knowledge of American government. Prerequisite: Sophomores or above. (ATTR: AMSB, ARTS)

POSC—315. U.S. Congress 3 credits

The course will examine principles, structures, procedures, and decision-making of the American legislative system with a primary emphasis on the U.S. Congress. Prerequisite: POSC—100 or Juniors or above. (ATTR: AMSB, ARTS)

POSC—320. The American Presidency 3 credits

The origin and development of the contemporary roles of the President as a decision maker and the importance of the presidency in the American Political System. Studies examining the selection process and the relationship between presidents and other decision-making actors, such as the Congress, interest groups, the courts and the bureaucracy, will be used to inform the students to help critically analyze both continuity and changes in the influence of the office. Prerequisite: POSC—100 or Juniors or above. (ATTR: AMSB, ARTS)

POSC—325. Public Opinion 3 credits

This course is an introduction to the study of public opinion. The course explores the origins of public opinion (political socialization; socio-demographic, personality, and political influences; and the mass media). The course will also cover public opinion polls and survey research techniques. Finally, the course will study the impact of public opinion on policy makers and public policy. Prerequisites: POSC-100 or ATDV 110, or Juniors or above. (ATTR: ARTS, INRM)

POSC—329. Special Studies in American Politics 3 credits

The study of select problems such as equality, minority rights, majoritarianism, and participatory democracy in the light of the theory and practice of the American political system. (May be taken more than once with different content. Consult Fall and Spring Schedules for specific topics.) Prerequisite: POSC—100 or Juniors or above, or by permission. An additional fee may be required, depending on the topic offered. (ATTR: ARTS, REB)

POSC—339. Special Studies in Political Theory 3 credits

This course explores major issues in political thought through the writings of selected political philosophers. Prerequisite: POSC—130 or Juniors or above. (ATTR: ARTS, REB)

POSC—346. Middle East Politics 3 credits

This course explores political, economic, socio-cultural, and structural factors that have intensified ethnic, religious, and tribal conflict, extreme poverty, and a legacy of authoritarianism. The propagation of the global oil trade and the consequences for marginalized and poor communities, and women and minorities in the region, will also be examined. Prerequisite: POSC—140 or 150; or ILST—100 for International Studies minors. (ATTR: ARTS, GLST, ILST)

POSC—347. Latin American Politics 3 credits

The purpose of this course is to introduce students to the politics of Latin America and the Caribbean and to gain insight into the numerous social, political, and economic dilemmas confronting our neighbors in the Americas. Through the study of selected cases some of the more significant contemporary issues in the region will be explored, including the foreign debt crisis, environmental concerns, immigration, and the process of democratization. Prerequisite: POSC—140 or POSC—150, or Sophomores or above. (ATTR: ARTS, ISP, MULT)

POSC—349. Special Studies in Comparative Politics 3 credits

The course examines political systems at the regional, state or substate level and focuses upon socio-political organization, political socialization and decision-making structures. (May be taken more than once with different content. Consult Fall and Spring schedules for specific topics.) Prerequisite: POSC—140 or POSC—150 or Juniors or above. An additional fee may be required, depending on the course offered. (ATTR: ARTS, ISP)

POSC—351. U.S. Foreign Policy 3 credits

There will be a case study examination of its historic development in economic, security, and cultural involvement from isolation to globalism. Prerequisites: POSC—100 or POSC—150. (ATTR: AMSB, ARTS, ISP)

POSC—359. Special Studies in World Politics 3 credits

The course examines contemporary issues, structures, and other relationships of international relations (may be taken more than once with different content). Consult Fall and Spring schedules for specific topics. Prerequisite: POSC—150 or Juniors or above. An additional fee may be required, depending on the course offered. (ATTR: ARTS, ISP)

POSC—360. Environmental Politics 3 credits

A study of environmental public policy: the major actors, institutions, and rules of the game that shape decision making. We will also engage in a dialogue about the underlying philosophies that drive resource utilization and environmental preservation. We will primarily look at the case of the United States, but some attention will be given to the international dimensions of the subject. Prerequisites: POSC—100 or ENVA—110 or Junior standing. (Same as ENVA—310) (ATTR: ARTS, FSPS)

POSC—370. Civil Liberties I 3 credits

The conceptual basis of the status of the individual and personal rights as discussed and elaborated upon in the decisions of the Supreme Court of the United States. The case law approach is used. Prerequisite: Sophomores or above. (ATTR: AMSB, ARTS) (Offered Alternate Fall)

POSC—372. Civil Liberties II 3 credits

The practical basis of the status of the individual and personal rights as discussed and elaborated upon in the decisions of the Supreme Court of the United States. The case law approach is used. POSC—370 is not a prerequisite for POSC—372. Prerequisite: Sophomores or above. (ATTR: AMSB, ARTS) (Offered Alternate Spring)

POSC—374. Introduction to Criminal Law 3 credits

The study of crimes, e.g., murder, manslaughter, conspiracy, accomplice liability, burglary, theft. The case law approach is used. Prerequisite: Sophomores or above. (ATTR: ARTS) (Offered Alternate Fall)

POSC—376. The Fourth, Fifth and Sixth Amendments 3 credits

The study of Supreme Court decisions affecting the rights of the criminally accused under the Fourth, Fifth and Sixth Amendments to the Bill of Rights. The case law approach is used. Prerequisite: Sophomores or above. (ATTR: ARTS) (Offered Alternate Spring)

POSC—378. International Law 3 credits

The materials dealt with in this course are case analyses of international practice problems and how they reflect upon our domestic legal system. Prerequisite: Sophomores or above. (ATTR: ARTS, GLST, ILST, ISP)

POSC—383. Human Rights 3 credits

Nearly every legitimate political authority and virtually every private citizen affirms the virtue of human rights. Since the 1948 Universal Declaration of Human Rights, “human rights talk” has proliferated; unfortunately, the *need* for such talk and action has also proliferated. In this course we look at the history and current practices of human rights from multiple perspectives. The main theoretical questions we will address are: Are human rights simply Western, or can they be “translated” into non-Western contexts? How flexible are human rights claims, i.e. to address poverty or gendered violence? Is there a human right to security? Who counts as human entitled to human rights protections? What is the connection between human rights, democracy and freedom? To address these questions we will read key thinkers in these debates. Prerequisite: Juniors or above, or permission of instructor. (ATTR: ARTS)

POSC—450. Political Science Travel Course 3 credits

As an academically oriented field experience, this course offers three semester hours credit for a semester-long course that includes an extended study program in selected geographical areas. Lectures, supervised research into aspects of the field study course, and orientation meetings will prepare students for an informed experience. Travel cost paid by student. Cost varies each semester. Permission by instructor required. (ATTR: ARTS)

POSC—470. Internship in Judicial Process 3 credits

The objective of this course is to expose students to the intricacies of the State Judicial Process by blending selected readings and participation in seminar sessions with hands-on participation in the 3rd Judicial District of State Supreme Court. Students will serve as Judicial Process Interns and perform duties and responsibilities as determined by their State Supreme Court sponsors. Students will serve 120 to 150 hours during the semester. Students will be graded based upon joint evaluation by the judicial sponsor and internship professor. Written permission of the internship supervisor is required. The internship is offered on a semester basis and may be taken in the fall or spring semester. (ATTR: ARTS, INT)

POSC—485. Internship in Legislative Process 3 credits

The objective of the course, exposure to the intricacies of the legislative process, is achieved by a blend of selected readings and participation in the New York State Legislature or not-for-profit organization dealing in advocacy or legislation. Students will serve as Legislative interns working 120 to 150 hours during the semester performing duties and responsibilities as determined by the legislator/supervisor in consultation with the faculty director. Students will be graded based upon joint evaluation of the legislator/supervisor and internship professor. Students placed in the Community Policy Institute program will attend a scheduled weekly class. Written permission of the internship supervisor is required. (ATTR: ARTS, INT)

POSC—489. Internship in Public Service Studies 3 credits

The course is designed to prepare and expose students to public policy making in New York State and allow them to participate in public policy formulation and execution at the state, substate and not-for-profit level. Students will serve as Public Service interns working 120 to 150 hours during the semester performing duties and responsibilities as determined by the agency supervisor in consultation with the faculty director. Students will be graded based upon the joint evaluation of the agency supervisor and internship professor. Written permission of the internship supervisor is required. (ATTR: ARTS, INT)

POSC—490. Political Science Honors 3 credits

Department approval, junior or senior status, and a minimum overall GPA of 3.5 are all required. Consult Department for specific topics. Students may repeat this course for credit provided the selected subject matter has not previously been taken for credit. (ATTR: ARTS)

POSC—497. Political Science Capstone Experience 4 credits (3 lecture, 1 lab)

This course is the culminating experience in political science program. It consists of a 3 credit topical seminar and a 1 credit lab. Seminar topics will vary (may be taken more than once with different content). In the course, students will engage deeply with specific topic and produce a capstone project that will include a public presentation. Prerequisite: POSC 100, POSC 130, POSC 140, POSC 150, POSC 178, and POSC 182. Junior Standing and Permission of Instructor required. (ATTR: ARTS)

POSC—499. Independent Study in Political Science 1 - 3 credits

Special problems of research in any of the following areas: Political Theory and Methodology, American Government, Comparative Government, International Relations, Law, Foreign Policy, and Area Studies. Students must have the approval of the faculty member guiding their studies and the department head. Prerequisite: Juniors or above and permission. (ATTR: ARTS)

Please refer to ATDV—788 and 789 and the Washington Semester Program section of the catalog for additional information on the following listings:

POSC—790. Washington Semester I – American Politics: National Government I 4 credits(ATTR: ARTS)

POSC—791. Washington Semester II – American Politics: National Government II 4 credits(ATTR: ARTS)

POSC—792. Washington Semester I – Comparative Politics I 4 credits(ATTR: ARTS)

POSC—793. Washington Semester II – Comparative Politics II 4 credits(ATTR: ARTS)

POSC—794. Washington Semester I – Justice I 4 credits(ATTR: ARTS)

POSC—795. Washington Semester II – Justice II 4 credits(ATTR: ARTS)

POSC—796. Washington Semester I – International Relations I 4 credits(ATTR: ARTS, ISP)

POSC—797. Washington Semester II – International Relations II 4 credits(ATTR: ARTS, ISP)

Psychology Department

Co-Chairs: Dr. Dmitry Burshteyn, Assoc. Prof. & Fr. Daniel Nelson O.F.M., Prof.

Prof.: Dr. Karen Boswell, Dr. Maureen T. Hannah,

Assoc. Prof.: Dr. Dean M. Amadio, Dr. Betty A. Bachman, Dr. Max Levine,

Dr. Kristin Miller, Dr. Thomas Swan

Asst. Prof.: Dr. Nicole Heller, Dr. Michael Jarcho, Dr. Emily Smith

Visit Asst. Prof.: Dr. Haiyan Zhang

The Psychology Department offers a unique perspective on human diversity, encourages self-knowledge, and helps students to develop critical thinking skills in the tradition of the liberal arts and sciences. As both a science and profession, Psychology incorporates theories and principles of behavior and mental processes based on empirical investigation which are used to describe and predict behavior, to solve practical problems, and to promote human welfare.

The Psychology program prepares students for entry into graduate programs leading to careers in academic and professional psychology. The study of psychology also provides an excellent background for careers in other fields such as law, business, and the health-care professions.

Opportunities for outstanding students include internships in various field settings as well as collaborative research with faculty members. Please see community.siena.edu/psychology for more information about elective PSYC 490 (Psychology Internship) and related course pre-requisites, settings, and application deadlines and procedures.

Requirements for the Major, B.A. in Psychology (31.000 credits):

PSYC 100	General Psychology		3 cr.
PSYC 260	Social Psychology		3 cr.
PSYC 300	Research Methods in Psych I		4 cr.
PSYC 200	Child Psychology	OR	
PSYC 205	Adolescent Psychology	OR	
PSYC 210	Adult Development		3 cr.
PSYC 215	Theories of Personality	OR	
PSYC 220	Abnormal Psychology		3 cr.
PSYC 240	Learning	OR	
PSYC 340	Human Cognition		3 cr.
PSYC 350	Physiological Psychology	OR	
PSYC 355	Sensation and Perception		3 cr.
PSYC 310	Tests and Measurements	OR	
PSYC 400	Research Methods in Psych II	OR	
PSYC 490	Seminar in Psychology		3 cr.
6 credits Psychology Electives			6 cr.

Auxiliary (7.000 credits)

ATDV 110	Statistics for Social Science		3 cr.
BIOL 140	General Biology for Social Sciences		4 cr.

Courses in Computer Science and the other social sciences are recommended. It is desirable to have the following courses completed early (e.g. prior to junior year) as they are pre-requisites for upper level requirements or electives: PSYC 100, PSYC 220, and ATDV 110. Students who plan to attend graduate programs are strongly encouraged to take Research Methods in Psychology II (PSYC—400). Psychology majors are encouraged to work closely with their faculty advisor in planning academic programs consistent with their interests and career goals.

Requirements for the Minor, Psychology (21.000 credits):

PSYC 100	General Psychology		3 cr.
PSYC 260	Social Psychology		3 cr.
ATDV 110	Statistics for Social Science	OR	
QBUS 200	Business Statistics I		3 cr.
One course from PSYC 240, 245, 250, 340, 350, 355 (PXEX)			3 cr.
One course from PSYC 200, 205, 210			3 cr.
Psychology Electives			6 cr.

Description of Courses

PSYC—100. General Psychology 3 credits

A study of the basic topics in psychology that lay the foundation for courses leading to a major in psychology and are relevant to assisting students in understanding themselves and others. This course is recommended to students seeking an elective in psychology and as the initial course for psychology majors. (ATTR: ARTS, CAS, CDS, STVS)

PSYC—120. Psychology of Women 3 credits

This course introduces the student to theory and research issues that explore the psychological experiences of women. Topics covered include various conceptual models of women, biological influences on their behavior, theories of female development, gender differences in personality and behavior, and problems of adjustment. It concludes with an examination of alternative lifestyles for women today. Prerequisite: PSYC—100. (ATTR: ARTS, WSTU)

PSYC—200. Child Psychology 3 credits

A study of human growth and development from conception to puberty, including motor, emotional, intellectual, language and social development, and children's imaginative activities, ideals, morals, religion, and interests with particular emphasis on contemporary theories. Prerequisite: PSYC—100. (ATTR: ARTS)

PSYC—205. Adolescent Psychology 3 credits

The experience of adolescence as a distinct period of development is examined. Topics include biological processes and their psychosocial significance including health problems. Issues related to adolescent sexuality are also examined including sexual attitudes and behavior and gender roles. Intellectual changes during adolescence and their effects on social cognition, moral reasoning, and political thought are described. Selected family issues and relationships as influences on adolescent development are considered as well as peer group relationships, friendships, and other social relationships. The issue of identity formation is examined in detail. The effects of school experiences on academic achievement and career development are also discussed as are adjustment problems and disturbances during adolescence. Prerequisite: PSYC—100. (ATTR: ARTS)

PSYC—210. Adult Development 3 credits

This course introduces the student to the field of adulthood using a developmental approach as a systematic framework. The focus of the course is on issues that involve both change and continuity across early, middle and later years of the adult life cycle. The interaction of psychological, sociological and biological factors as well as the interaction between individuals and their environment is emphasized. In order to provide a comprehensive look at behavioral age changes, various theories and models of development and aging are discussed. Prerequisite: PSYC—100. (ATTR: ARTS)

PSYC—215. Theories of Personality 3 credits

Theories of personality including psychoanalytic, neo-analytic, trait, learning, and humanistic paradigms are examined and evaluated. Prerequisite: PSYC—100. (ATTR: ARTS)

PSYC—220. Abnormal Psychology 3 credits

Maladaptive behaviors are studied from theoretical and research perspectives. Topics include the psychoses, anxiety disorders, personality, social and sexual disturbances, disorders of childhood, organic mental disorders, and substance abuse. Therapeutic interventions and legal issues are also considered. Prerequisite: PSYC—100. (ATTR: ARTS, JMN)

PSYC—225. Health Psychology 3 credits

Health psychology is a basic research and clinical practice area within psychology that focuses on understanding the scientific relationships between social, behavioral, and psychological processes and health. Topics will include health beliefs and health-enhancing behaviors, the effects of stress and coping on illness and disease recovery, adjustment to chronic or terminal illnesses, and clinical interventions such as pain management, behavioral management of diseases like HIV-spectrum illness and cancer, the relationship between the health care provider and patient, and cross-gender and cross-cultural variations in prevention and development of disease and in the factors related to positive coping with illness. Prerequisite: PSYC—100. (ATTR: ARTS, HSMR)

PSYC—230. Lifespan Development 3 credits

This course is a chronological study of human development spanning conception to death from the perspective of developmental psychology. Students in this class will examine matters related to physical, cognitive, and socioemotional maturation at each stage of the lifespan and how these matters can enrich, delay, or otherwise alter developmental progression. Emphasis will be placed on theoretical principles, methods of study, and practical implications of developmental research, particularly how these principles and methods can be applied to health professions. This course does not fulfill the Psychology major's Developmental area requirement, but may be taken as a Psychology elective. Prerequisite: PSYC—100. (ATTR: ARTS)

PSYC—240. Learning 3 credits

This course surveys historical and contemporary theories of human and animal learning. The psychological study of learning is traced as it has developed over the past 100 years. Among the earlier theorists surveyed are Thorndike, Pavlov, Guthrie, Hull, and Tolman. The more recent theories of Skinner and Bandura are given extended treatment. Current perspectives from cognitive science and neurophysiology are also reviewed. A general theme of this course is to demonstrate the relevance of each learning theory to matters of practical human importance. This course provides background that is of special relevance to individuals interested in education, child development, counseling, and clinical psychology. Prerequisite: PSYC—100. (ATTR: ARTS, PXEX)

PSYC—245. Human Motivation 3 credits

Motivational questions are fundamental to all of Psychology. The psychology of motivation inquires about the conditions which serve to initiate, maintain, direct, and terminate ongoing behavior. This course considers theory and research associated with the major perspectives on human motivation including instinct, ethological, and sociobiological theories, drive theories, arousal theory, expectancy-value theories, humanistic theories, cognitive consistency theories, and theories of causal attribution. The experimental and clinical significance of these viewpoints receive comparable attention. Prerequisite: PSYC—100. (ATTR: ARTS, PXEX)

PSYC—250. Comparative Psychology 3 credits

A critical analysis of the several approaches to the study of behavior, including the comparative method. Examples will be drawn from representative levels of human and animal behavior. Students will participate in a project or term paper. Prerequisite: PSYC—100. (ATTR: ARTS, PXEX)

PSYC—255. Sexual Behavior 3 credits

Exploration of the contributing elements of sexual behavior in a wide range of animal and human situations. Coverage of the psychological controls and implications of sexuality will include group and individual sexual development, norms of behavior, attraction, gender development and identification, birth control, art, and literature. Additional attention will be paid to the involvement of the retarded, the handicapped, and the aged in sexual behavior. A research paper or class presentation will be required. Prerequisite: PSYC—100. (ATTR: ARTS)

PSYC—260. Social Psychology 3 credits

This course is designed to familiarize students with a broad array of classic and current theory and research that are studied primarily by psychologists in the area of social psychology. Students will become familiar with the topics of social psychology and the methods used to study it. Topics include social cognition, social perception, attitudes and attitude change, love, hate (prejudice), conformity, compliance, obedience, and influence. In addition to becoming familiar with theory and research findings, the course emphasizes ways in which the information can be useful to students in their daily lives. Prerequisite: PSYC—100. (ATTR: ARTS, PXEX)

PSYC—265. Introduction to Group Psychology 3 credits

This course is an introduction to the study of group interaction through theoretical perspectives and current research. The study of group dynamics includes topics such as group formation and socialization, communication, how power is wielded in groups, the beneficial and detrimental effects of groups on performance and decision-making, conformity in groups, intergroup relationships, and conflict. Classes will be structured so that students have opportunities to monitor their own group processes as they study theory and research. Prerequisite: PSYC—100. (ATTR: ARTS)

PSYC—285. Topics in Psychology 3 credits

This course will explore a topic not covered in regular course offerings. Particulars will be announced during the semester previous to that in which the course will be offered. May be taken more than once with different content. An additional fee may be required, depending on the topic offered. Prerequisite: PSYC—100. (ATTR: ARTS)

PSYC—300. Research Methods in Psychology I (3 hours lecture, 2 hours laboratory) 4 credits

This course familiarizes students with basic principles of psychological research through lecture and laboratory experience. Drawing examples from various areas of psychology the course trains students to design and conduct experiments, to evaluate the internal and external validity of studies, and to analyze and interpret data in the context of relevant research literature. Students gain familiarity with technical sources in psychology. The social and ethical aspects of psychological research are also examined. The course features practice regarding the standard elements of format and style used to report the results of psychological investigations. Prerequisites: PSYC—100, ATDV—110. Lab fee. (ATTR: ARTS)

PSYC—310. Tests and Measurements 3 credits

This course is designed to familiarize the student with the rationale of test construction and with the more popular intelligence, achievement, aptitude, interest and personality tests used in clinical, industrial and academic settings. Each student is required to complete a research project utilizing test data. Prerequisites: PSYC—100, ATDV—110. (ATTR: ARTS)

PSYC—320. Counseling Theories and Techniques 3 credits

This course provides students with an in-depth introduction to three prominent counseling theories as well as basic training in some of the tools and techniques that are needed by the entry-level counselor. In light of the demographic makeup of many clinical populations, issues related to working with women and members of minority populations will be heavily emphasized. Because a major goal of the course is to impress students with the importance of grounding counseling practice in sound psychological theory, theoretical issues and practical applications will be interwoven continuously throughout the semester. Prerequisites: PSYC—100, PSYC—220. (ATTR: ARTS)

PSYC—325. Childhood and Adolescent Psychopathology 3 credits

This course will examine some of the most well-researched and interesting psychological disorders of childhood and adolescence, including clinical descriptions, DSM-IV diagnostic criteria, and theoretical bases for the explanation and treatment of these disorders. Included will be an overview of some psychosocial contributors to psychological problems of childhood, including child sexual and physical abuse. In addition, the course will cover psychotherapeutic interventions with children and adolescents. Prerequisites: PSYC—100, PSYC—220. (ATTR: ARTS)

PSYC—340. Human Cognition 3 credits

This course surveys human mental processes. Cognition involves the ability to store, retrieve, and use knowledge. In-class demonstrations and activities supplement lecture material on attentional processes, memory, imagery, concept formation, language, reasoning, problem-solving, and creativity. The course emphasizes theoretical and experimental aspects of cognitive psychology as well as everyday applications, and relates cognitive processes to other areas of psychology such as development, clinical, social, and neuropsychology. Prerequisite: PSYC—100. (ATTR: ARTS, PXEX)

PSYC—342. Human Intelligence 3 credits

This course surveys theoretical and applied issues relating to the nature of human intelligence. The history of intelligence testing is covered, with emphasis on its impact on social policy in the United States throughout the 20th century. The question "What is intelligence?" is examined from several viewpoints, including psychometric, information processing, and cross-cultural perspectives. Theory and research regarding hereditary versus environmental influences on intelligence are studied. Finally, prospects for training intelligence through the use of thinking skills programs are evaluated. Prerequisites: PSYC—100, ATDV—110 or equivalent. (ATTR: ARTS)

PSYC—345. Drugs and Human Behavior 3 credits

This course examines the actions of psychoactive drugs on brain and behavior. Drugs of abuse and psychotherapeutic drugs are given about equal emphasis. Drug use as a social problem is examined in historical and current perspectives, covering substances such as narcotics, stimulants, hallucinogens, marijuana, and alcohol. Drugs of abuse are examined with regard to their mechanisms of action, effects on the body and on behavior. Addiction and treatment approaches are examined from multiple perspectives. Medicines for psychological disorders (affective, anxiety, schizophrenia) are studied by examining the mechanisms of drug action on the brain; major and minor tranquilizers and antidepressant medications are covered. Also discussed are "non-drug" drugs caffeine and nicotine. Prerequisite: PSYC—100. (ATTR: ARTS, HSMR, JMN)

PSYC—350. Physiological Psychology 3 credits

A course consisting of the physiological and neurological bases for behavior, including the study of the nervous system, endocrine system, sensation and perception, the motor system, and the physiological basis for motivation. Prerequisite: PSYC—100. (ATTR: ARTS, CFN, PXEX)

PSYC—355. Sensation and Perception 3 credits

This course examines how humans take in information through the senses, and the relationship between sensory input and conscious experience. The visual system is examined in detail as a prototype, and examples from other senses (hearing, taste, touch, pain) are included throughout the course. Among topics included are psychophysics, physiological bases of sensation, attention, perception of form, depth, contrast, motion, object constancies, and perceptual development. Lecture material is supplemented by demonstrations designed to

allow students to experience many of the perceptual phenomena studied in the course. Prerequisite: PSYC—100. (ATTR: ARTS, CFN, PXEX)

PSYC—365. Industrial and Organizational Psychology 3 credits

This course introduces students to the range of activities and issues of major concern to contemporary industrial and organizational psychologists. The evolution of the field is viewed in historical perspective. Major topics in personnel psychology include personnel selection and placement, utility models and profitability, employee training and development, and performance appraisal concepts and techniques. The current legal guidelines regarding Equal Employment Opportunity and Affirmative Action are considered as they impact on personnel practice. Topics in organizational psychology include work motivation, job satisfaction and the quality of life, and perspectives on leadership and supervisory role. Prerequisite: PSYC—100. Not open to students who have taken PSYC—110. (ATTR: ARTS)

PSYC—370. Intimate Relationships 3 credits

This course will focus on current, prominent, and clinically applicable theories of intimate relationships. Students will be exposed to the writings of theorists, clinicians, and researchers who have examined relational dynamics and the factors that contribute to relationship satisfaction or dissatisfaction. Included will be an examination of hypothesized and empirically established gender differences in intimate relationship functioning. Clinical applications of theories and case studies will be emphasized. Prerequisite: PSYC—100. (ATTR: ARTS, MINR)

PSYC—375. Forensic Psychology 3 credits

Forensic psychology is a cutting-edge interdisciplinary arena that spans the fields of psychology, sociology, law, criminal justice, and public policy, among others. Forensic psychology unites various areas of clinical psychology, with its emphasis on psychopathology (e.g., the insanity defense) and psychological assessment (e.g., the use of assessment devices in determinations of competence and in child custody evaluations) and social psychology, with its body of literature on psychological phenomena salient to legal processes (e.g., interpersonal persuasion, the reliability of memory in eyewitnesses, psychological factors relevant to jury selection, the detection of lying) with the theory and practice of law. As a profession, the subspecialty of forensic psychology prepares psychologists to interact with the legal arena in a variety of roles, including expert witness, child custody evaluator, determiner of mental competence and dangerousness of criminal defendants, police psychologist, prison psychologist, and consultant to military, federal, state, and local law enforcement agencies. Prerequisite: PSYC—100. (ATTR: ARTS)

PSYC—380. History and Systems of Psychology 3 credits

A study of the intellectual roots of modern psychology, including contributions from philosophy and physiology. Major figures in the history of psychology are discussed as well as their schools of thought: Structuralism, Functionalism, Gestalt Psychology, Behaviorism, and Psychoanalysis. Additional topics included are the history of clinical psychology (views and treatment of mental illness), and the rise of mental testing. Prerequisites: 12 credits in psychology. (ATTR: ARTS)

PSYC—400. Research Methods in Psychology II (3 hours lecture, 3 hours lab) 3 credits

This course is designed to extend students' knowledge of research methods beyond PSYC—300 and to give students opportunities to apply their knowledge by conducting original research. Advanced topics in research design and statistical analysis, including the use of computer software, are featured. An oral presentation and formal written report of the investigation are required. Prerequisites: ATDV—110, PSYC—300. Lab fee. (ATTR: ARTS)

PSYC—480. Internship in Psychology 3 credits

Field experience in a setting specializing in research and/or clinical activities in professional psychology may be arranged for Junior and Senior Psychology majors. Interns spend eight hours/week in the field for 14 weeks where they are supervised by agency personnel. Interns are also required to meet weekly with a campus supervisor and to develop a paper appropriate to the placement. Course prerequisites include a minimum of 15 credits in Psychology including PSYC—310 (Tests and Measurements) and other courses considered relevant to specific placements. The department also screens applicants based on academic record and judged personal readiness to function effectively in a professional setting. Additional information may be obtained from the department. Interested students must submit a formal application to the department during the first three weeks of the semester preceding the proposed placement. (ATTR: ARTS, INT)

PSYC—490. Seminar 3 credits

Intensive scrutiny of a specific topic in psychology will be undertaken in a small group with emphasis on primary sources. This course may be taken more than once with different content. Prerequisite: 15 credits in psychology or permission of instructor. (ATTR: ARTS)

PSYC—499. Independent Study 3 credits

A course consisting of individually planned research projects in the area of student's interest under the supervision of a member of the Psychology Department. (ATTR: ARTS)

Religious Studies Department

Chair: Fr. Linh Hoang, O.F.M., Assoc. Prof.

Prof.: Mr. Joseph G. Allegretti, Esq., Dr. Lois K. Daly, Dr. W.T. Dickens

Dr. Fareed Munir, Fr. Dennis E. Tamburello, O.F.M., Dr. Peter S. Zaas

Assoc. Prof: Dr. Holly Grieco,

Asst. Prof.: Dr. Perundevi Srinivasan

Visiting Asst. Prof.: Dr. Ryan McLaughlin

The principal aim of the Religious Studies Department is to help students at Siena understand and appreciate the meanings and roles of religion in human culture. The academic investigation of religion is a component of a liberal arts education and clearly has an important function at a college sustained by the Franciscan tradition. The Department presents in its courses a critical study and appreciation of the various religious traditions of the world. Through this approach to Religious Studies, the Department provides students with an opportunity to explore the significance of human existence in its relation to the sacred, and alerts them to the importance of religious beliefs and practices in the political, social, aesthetic and economic arenas. Our courses are designed for all students, regardless of their personal religious stance, and approach religious experience from cross-cultural, multidisciplinary and global perspectives.

Requirements for the Major, B.A. in Religious Studies (36.000 credits):

3 credits of either RELG 101, 121, 141, or 181	3 cr.
RELG 490 Seminar in Religious Studies	3 cr.

3 credits from each of the following areas:

Historical Studies (RSHS)	3 cr.
Scriptural Studies (RSSC)	3 cr.
Religious Thought (RSRT)	3 cr.
Ethics (RSET)	3 cr.
World Religions (RSWR)	3 cr.

Religion Electives 15 cr.

*INSA 400 and INSA 480 may be counted as elective RELG credits by Religious Studies majors.

Students are encouraged to take advantage of religious studies course offerings in the Hudson-Mohawk Association of Colleges.

Auxiliary (6.000 credits)

Two semesters in the same foreign language

These languages include: French, Spanish, German, Latin, Russian, Greek, Italian or Arabic. 6 cr.

*American Sign Language does not fulfill this requirement.

Requirements for the Minor, Religious Studies (18.000 credits):

RELG 490 Seminar in Religious Studies	3 cr.
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Two courses from the following, not from the same area: 6 cr.

Scriptural Studies (RSSC)
 Historical Studies (RSHS)
 Religious Thought (RSRT)
 Ethics (RSET)
 World Religions (RSWR)

Religious Studies Electives
(May include two core disciplinary courses: RELG 101, 121, 141, 181)

9 cr.

INSA 400 and INSA 480 may be counted as RELG elective credits for Religious Studies Minor.

Description of Courses

All students are required to take one course in the Department of Religious Studies (RELG—101 through RELG—181). It is recommended that the course be taken during the freshman or sophomore year. Transfer credits in religious studies may count towards the core requirement.

Each of the following courses (RELG—101 - RELG—181) will examine the nature and expressions of religious experience from the perspective of a specific field within the discipline of Religious Studies. Any of these courses will satisfy the Religious Studies disciplinary course requirement in the core curriculum. A disciplinary course in Religious Studies must be completed successfully before any other course in the Religious Studies Department can be taken.

RELG—101. Religion in Western Culture 3 credits

An introduction to religion through an historical examination of western religious communities, the course focuses on Judaism, Christianity, and Islam as they have developed in a variety of forms while retaining certain central traditions. (ATTR: ARTS, CDR)

RELG—121. Introduction to Biblical Studies 3 credits

An introduction to the Bible, using the tools of contemporary biblical scholarship, including literary and historical criticism, archaeology, and philology. The course will examine the history of the biblical text and the biblical canon, the relationship between the Bible and its companion literatures, and the ways in which biblical texts are interpreted by different Christian and Jewish religious communities. (ATTR: ARTS, CDR)

RELG—141. An Introduction to Religious Thought 3 credits

An examination of religious thought—theology and ethics—in the Western traditions of Judaism, Christianity, and Islam. Using primary texts, particular attention will be given to an exploration of the ways religious individuals and communities understand the divine, human experience, and the world. (ATTR: ARTS, CDR)

RELG—181. Experiences of the Sacred 3 credits

An introduction to the discipline of Religious Studies through an examination of the nature of religious experience, its relation to human understandings of the Sacred, and its expressions in human history and culture. These themes will be concretely illustrated through examples drawn from such religious traditions as Buddhism, Christianity, Hinduism, Islam, Judaism and Confucianism. Contemporary forms of religious experience will be emphasized. (ATTR: ARTS, CDR)

RELG—205. Judaism 3 credits

This course is a survey of the Jewish historic experience, examining the forces that have shaped the ongoing development of Judaism, its beliefs and practices. Major issues and trends in modern Jewish life will be explored, including the Holocaust and Zionism. This course is sponsored in part by the Jewish Chautauqua Society. (ATTR: ARTS, CAR, CFD, RSHS)

RELG—207. Christianity 3 credits

This course examines the origins and historical development of Christianity, including its contemporary, global diversity. It will not adopt the perspective of any one Christian tradition, but will include a variety of perspectives, from within Roman Catholic, Eastern Orthodox, Protestant, and dissenting traditions. The course explores major issues and movements within Christianity that have been important in the development of western intellectual, cultural, and religious traditions. These may include sin and redemption, the imitation of Christ, worship and devotion, colonialism and the spread of Christianity, and the Church and secular society in America. Prerequisites: RELG-101, 121, 141, 181 or permission of instructor. (ATTR: ARTS, CFH, RSHS)

RELG—210. Islam 3 credits

The historical origins of Islam, the emergence and development of various strands of religious tradition, and their impact on the modern world. Analysis and historical survey of such key concepts as tawhid (essence of Islam), and of its basic categories for religious life, theology, law, literature, philosophy, and science. In addition attention is paid to the growing presence of Islam in Europe and America. (ATTR: ARTS, CAR, GLST, ILST, MULT, RSHS, CFD)

RELG—215. Eastern Christianity 3 credits

A survey of the historical and religious development of those churches which belong in the tradition of Eastern Christianity and the contributions which churches of the Eastern tradition make to Christianity in the contemporary world. (ATTR: ARTS, CAR, RSHS)

RELG—220. Language for Scripture Study 3 credits

A study of a language that is essential for scholarly study of the Bible or the Qur'an. This course may be taken for up to four semesters of Arabic, Greek, Hebrew, or other languages (e.g., Latin, Aramaic) related to scripture study. (ATTR: ARTS, RSSC)

RELG—240. Introduction to Christian Theology 3 credits

A study of the foundations of Christian belief. Basic themes in Christian thought such as the meaning of human existence, the experience of God, the significance of evil, and the community as focus of God's activity will be explored in terms of the person and work of Jesus. (ATTR: ARTS, CAR, RSRT)

RELG—250. Women and Religion 3 credits

This course will focus on the varieties of women's religious experience. Various descriptions of the reality, distinctiveness, and value of women's religious experience as well as the role of women in institutional forms of religion will be analyzed. Readings will be drawn from the major religions of the world, with focus on the western religious traditions. (CORE: AR) (ATTR: ARTS, CAR, RSRT, WSTU, CFD)

RELG—260. Religion and Moral Decision 3 credits

An examination of moral experience, moral character, and moral discernment, as well as an analysis of the principles and procedures used in the Western religious traditions to adjudicate crucial moral issues such as: sexual morality, medical ethics, race relations, and moral judgments about warfare. (ATTR: ARTS, CAR, ISP, RSET, CFJ)

RELG—265. Introduction to Catholic Social Teaching 3 credits

This course introduces students to the sources, concepts, beliefs, and practices central to Catholic social teaching. In light of biblical and theological traditions that the Catholic Church asserts are fundamental to being Christian, the course examines various social problems that pose challenges to those committed to justice. The course equips students to analyze ecological, economic, social, and political policies using the critical resources of Catholic social teaching in dialogue with other modes of social analysis. After exploring global issues during the first half of the semester, we will consider domestic problems in the United States. The course aims to educate students about current affairs from the perspective of Catholic traditions on social justice as well as to refine their analytical skills in applied moral theology. Prerequisite: one disciplinary course in religious studies. Offered at least once every two years. (ATTR: ARTS, CAR, RSET)

RELG—270. Religion and the Environment 3 credits

An examination of the stances and attitudes toward nature and the environment taken by several religious communities. The course will assist students to develop a constructive assessment of the theological and ethical contributions religious communities can make to environmental studies. (Same as ENVA—230.) (ATTR: ARTS, CAR, CFN, RSET)

RELG—280. World Religions 3 credits

A survey of the religious experiences and traditions of selected Non-Western peoples. The traditions which will be examined include the religions of native peoples, Buddhism, Hinduism, and traditions of China and Japan. Emphasis will be placed on the living and dynamic nature of these traditions in the past and their expressions in the contemporary world. (ATTR: ARTS, CAR, GLST, ILST, RSWR, CFD)

RELG—300. Topics in Religious Studies

A study of a specialized topic in one of the fields of Religious Studies, which include historical studies, scriptural studies, religious thought (theology and ethics), and world religions. The selected subject matter is announced in the schedule of course offerings in semesters when it is offered. Students may repeat this course for credit provided the selected subject matter has not been previously taken for credit. An additional fee may be charged depending on the topic offered. (ATTR: ARTS, FSRS, REB)

RELG—301. The Reformation of Christendom 3 credits

The reform of western Christianity in the sixteenth and seventeenth centuries as Europe moved from the medieval to the modern world. Special attention will be paid to significant figures such as Luther, Calvin, and

Ignatius Loyola. Prerequisites: (Prerequisites: Any HIST 100-level course.) and (RELG—101 or 121 or 141 or 181) (Same as HIST—384) (ATTR: ARTS, CAR, RSHS, CFH)

RELG—305. Religion in America 3 credits

An examination of certain religious traditions as ways of understanding the development and practice of religion in America. The central focus is on the interaction between religion and American culture. Using a historical approach, the course examines mainstream religious traditions such as Judaism, Christianity, and Islam, as well as non-mainstream religious traditions, such as African American Religion and American Buddhism. (ATTR: AMSC, ARTS, CAR, CFD, REB, RSHS)

RELG—310. The American Evangelical Tradition 3 credits

The development and transformations of Evangelical Pietism and its impact on American life. Emphasis will be placed on revivalism as the central theme of this tradition in America. (ATTR: AMSC, ARTS, CAR, RSHS)

RELG—315. American Catholicism 3 credits

Catholicism and American cultures encountered one another through misunderstanding and fear moving towards a period of intolerance and persecution. The course will examine how American Catholicism developed through justice issues such as religious freedom, social justice, racism, and gender equality. Using a thematic approach to studying the history of Catholicism in America, the course will also employ social science, psychological, and political texts to paint the broadest picture of the development of American Catholicism. A major focus will be on the development of the Franciscan missions along the west coast as well as the southern border of the United States. These missions contributed further to the American Catholic experience. (ATTR: AMSC, ARTS, CAR, CFJ, RSHS)

RELG—320. Biblical Archaeology 3 credits

An examination of the ancient cultures of Palestine from Neolithic times to the early days of the Christian church. RELG—320 studies both the material culture of Palestine as uncovered in excavations and also the nature (and limits) of new archaeological methods. Biblical Archaeology also probes the relationship between text (the Bible and ancient inscriptions) and these material remains. The course will investigate the religion of Israel as can be deduced from excavations but will place that religion in the broader context of the entire culture of Israel and of the ancient Near East. (ATTR: ARTS, CAH, RSSC)

RELG—324. Introduction to the Old Testament 3 credits

A comprehensive study of the literatures of the Old Testament/Hebrew Bible and the religious, historical, sociological, and economic factors which affected both their writing and their eventual acceptance as canonical literature by Judaism and Christianity. The course will expose the students to samples of all the main literary genres of the Old Testament and will study them using most of the contemporary biblical methodologies. The course will emphasize that the Hebrew Bible emerged on the broader stage of the ancient Near East between the high cultures of Mesopotamia and Egypt. It will also approach many crucial topics in the Old Testament such as the evolution of biblical monotheism, Israelite religion(s), the emergence of Israel in Canaan, Creation and Covenant. Prerequisite: RELG—121 or permission of instructor. (ATTR: ARTS, CAR, RSSC)

RELG—325. Islamic Scripture: Qur'an 3 credits

The Qur'an is sacred scripture and Muslims believe it was revealed to Prophet Mohammad Ibn Abdullah in Arabic over a period of 23 years in Arabia where the first Islamic community developed. This course examines the range of religious experiences represented by the Qur'an text, its geographical surroundings from which it emerged, its interpreters, and its critics. With the use and examination of various translations of the Qur'an, the course examines the religion and culture of the pre-Islamic period, the history of the text including Hadith literature, and the relationship between the Qur'an and Jewish and Christian scriptures, acting to familiarize students with its broad scope. (ATTR: ARTS, CAR, RSSC)

RELG—328. Religion in the Arabic Media 3 credits

Modern Standard Arabic will be studied and utilized as a research tool intended to develop proficiency in reading for comprehension and translation into English through the study of grammar, development of composition exercises, and basic conversation practice. Student focus will be on the study of the religious dimension of Arabic sources to strengthen their use of micro skills and strategies employed in written and basic oral communication, such as describing religious events, expressing ideas, and stating and defending opinion. Permission of instructor required. Offered every two years. (ATTR: ARTS, RSWR, FSRG)

RELG—330. Jesus, the Gospels, and Christian Origins 3 credits

A study of the life and teachings of Jesus and of the community founded in his name, with special attention to the available historical sources; a literary, historical, and theological examination of the four gospels. (ATTR: ARTS, CAR, RSSC, CFH)

RELG—335. Paul and the Rise of the Christian Church 3 credits

An examination of the person and teachings of Paul as these are reflected in his letters, with consideration of how Paul's contributions were developed by subsequent generations of Christians in such works as the Pastoral Epistles, the Book of Acts, and other early Christian literature. (ATTR: ARTS, CAR, CFH, RSSC)

RELG—340. The Modern Search for Jesus 3 credits

A study of the person and work of Jesus in the light of recent historical research and theological reflection. Students will explore a variety of scholars' answers, and formulate answers themselves, to questions such as: What methods are best suited to studying the person and work of Jesus? Who was Jesus? What did he do? What was his main message? With whom did he associate and why? With whom was he in conflict and why? What is the significance of his life, death, and resurrection? How is he related to God? How is he related to his followers?. (ATTR: ARTS, CAR, CFH, RSRT)

RELG—350. Sacramental Theology 3 credits

An investigation of the biblical, historical, psychological, and sociological roots of liturgy emphasizing the place of ritual in human and Christian personal development. (ATTR: ARTS, CAR, RSRT, CFH)

RELG—355. The Catholic Tradition 3 credits

An historical and systematic examination of key elements of the Catholic tradition, e.g., tradition, sacrament, ministry, papacy, and spirituality. Contemporary issues such as the relationship between Catholicism and politics and the dialogue between Catholicism and world religions will also be explored. (ATTR: ARTS, CAR, CFH, RSRT)

RELG—357. Global Catholicisms 3 credits

This course examines how the Roman Catholic Church has influenced and been influenced by the process of globalization. Students investigate both the impact the Catholic Church has had on the non-North Atlantic societies in which it has taken root and the diversity of Catholic thought and practice occasioned by its worldwide growth. Prerequisite: one disciplinary course in religious studies. Offered at least once every two years. (ATTR: CAR, RSRT, GLST, ILST)

RELG—360. Morals and Medicine 3 credits

An examination of problems in medical ethics that are particularly urgent at the present time, such as: models for health care, human experimentation, organ transplantation, care for the dying, euthanasia, genetic engineering, artificial insemination, sterilization, behavior control, allocation of scarce medical resources, and health care delivery. Readings include a diversity of theologians, philosophers, social scientists, lawyers, historians, scientists, and physicians. Prerequisite: One disciplinary course in religious studies, BIOL—110 and BIOL—120 or BIOL 140 or BIOL—170 and BIOL 180 or permission of instructor. (ATTR: ARTS, CAR, HSMR, ISP, RSET, CFJ)

RELG—365. Religion, Values, and Business 3 credits

A critical examination of the ways in which values are expressed in business decisions within the religious and cultural contexts which shape these values. Theories of ethics and social responsibility are examined in relation to issues such as environmental concerns, hiring practices, advertising, consumer demands, and related issues that require self-regulation or government-imposed regulation of corporations. (ATTR: ARTS, CAR, ISP, RSET)

RELG—370. Religion, Morality, and Politics 3 credits

An examination of the relation between ethics and politics as interpreted by selected, representative religious thinkers. (ATTR: ARTS, CAR, ISP, REB, RSET)

RELG—375. Modern Men, Meaning, and Morality 3 credits

A study of men's experience as gendered persons, rather than as universal human beings, from the perspectives of men's studies and religious ethics. The course will examine gender relations and critical theory as well as specific topics related to men's lives, such as: growing up male, seasons of men's lives, friends and lovers, sexuality and marriage, careers and fatherhood, politics and war, and new spiritual and social visions. (ATTR: ARTS, CAR, RSET, WSTU)

RELG—380. The Religions of Native Peoples 3 credits

An overview of the religious traditions of various native peoples such as Native Americans, Africans and Pacific Islanders. The role of religious experience in the cultural, historical and social worlds of these peoples is considered in their historical and modern settings. The course will pay special attention to the contributions of these peoples to the religious and cultural worlds of modern times. (ATTR: ARTS, CAR, MCCP, RSWR)

RELG—383. Hindu Texts and Practices 3 credits

A study of Hinduism in its specific cultural and historical settings, paying considerable attention to diverse Hindu texts and practices from the “east” and the “west.” Explores Hindu iconographies, narratives, spaces and ways of worship. Introduces interpretive strategies from comparative, feminist, social, and historical frameworks. (ATTR: ARTS, RSWR, GLST, ILST, CFD)

RELG—385. Buddhist Traditions 3 credits

A survey of the history, development and structure of the religious traditions of Buddhism including the Theravada, Mahayana, Tibetan and Zen traditions. The religious experience of Buddhists and its impact on the cultures of India, Central Asia, China and Japan are examined. In addition attention is paid to the growing presence of Buddhism in Europe and the United States. (ATTR: ARTS, CAR, GLST, ILST, MULT, RSWR)

RELG - 387. Goddesses in India and Beyond 3 credits

A study of popular goddesses from the “east” and the “west” in their specific cultural and historical settings, with considerable attention to Indian goddesses. Explores iconographies, texts, and worship practices of several goddesses belonging to diverse religious traditions including Hinduism, Buddhism, Jainism, and ancient Greek religions. Introduces interpretive strategies in goddess scholarship from comparative and feminist frameworks. Prerequisite: one RELG course at the 100 level. (ATTR: ARTS, WSTU, CAR, CFD, RSRT, RSWR)

RELG—390. Religion and Globalization 3 credits

A study of the relationship of religion and globalization in both their historical and contemporary manifestations. The course will focus on the development of New Religious Movements as global phenomena, the rise of “Fundamentalist” movements as a response to global and modern developments, and the Franciscan Tradition as a Christian encounter with globalization. Prerequisite: one RELG course at the 100 level. (ATTR: CAR, CFD, GLST, ILST, RSWR)

RELG—400. Religious Studies Field Experience 1-3 credits

As an academically oriented field experience, this course offers three semester hours credit for an intensive two- to two-and-a-half week study program in selected geographical areas to study aspects of religion from the perspectives of the subdisciplines of historical studies, religious thought, ethics, or world religions, preceded by orientation lectures, and including supervised research into one aspect of the field study. Examples of topics that will be explored at different times include: Religion and the Peace Process in Northern Ireland, The World of the Protestant Reformation, The Relationship between African Religion and the African American Community, and Franciscan Italy. Travel costs are paid by the student. The cost varies each semester. Students may repeat this course for credit provided the selected subject matter has not been taken previously for credit. (ATTR: ARTS, CFH, CAR)

RELG—401. History of the Franciscan Tradition 3 credits

This course will familiarize the student with the persons, events and ideas that have inspired the Franciscan Movement. The student will come to understand the background of Franciscanism in the context of the High Middle Ages, and in contrast to earlier forms of religious life within the Christian tradition. The student will learn about the role of Franciscans in the development of western art; in higher education; in politics; in the age of exploration; and in the development of Christian Spirituality over the past 800 years. Appropriate attention will be paid to the internal struggles of Franciscans; to the role of women in the Franciscan family; and to the place of Franciscans in the Anglican Communion. The course will culminate in a look at the founding of Siena College as a Franciscan contribution to higher education. Prerequisites: (Any HIST 100-level course.) and (RELG—101 or 121 or 141 or 181). (Same as HIST—376) (ATTR: ARTS, CFH, HEUR, HNW, PONH, CAR, RSHS)

RELG—405. Judaism and Modernity 3 credits

An examination of how Jews and Judaism have responded to the crisis of modernity. Topics to be examined include the effects of the breakdown of the European Ghetto; the birth of Reform, Conservative, Reconstructionist, and Neo-orthodox Judaism; the Haskalah movement; Zionism; 20th century Jewish thought; post-Holocaust theology; contemporary trends in Judaism. (ATTR: ARTS, RSHS)

RELG—420. Biblical Study Tour 3 credits

An academically oriented study of biblical lands, this specially designed course offers three semester hours credit for an intense two-week study program in the lands of the Bible, preceded by orientation lectures, and followed by supervised research into one aspect of the field tour. Travel costs paid by student. Cost varies each semester. (ATTR: ARTS, CAR, RSSC)

RELG—440. The Protestant Tradition 3 credits

A study of the beginnings of Protestant Christianity, its development in the eighteenth and nineteenth centuries, and the basic thought of representative twentieth century theologians such as Karl Barth, Dietrich Bonhoeffer, Rudolf Bultmann, Reinhold Niebuhr, and Paul Tillich. (ATTR: ARTS)

RELG—445. Liberation Theology 3 credits

This course explores the religious and theological dimensions of liberation theology. Attention will be focused on the claims about God's activity, human nature, and the Christian life made by the advocates of liberation. Recent texts by Black, feminist, gay, and Latin American theologians will form the context for class discussions. (ATTR: ARTS, FSRS, MCCP, RSRT)

RELG—480. Internship in Religious Studies 1-3 credits

This course provides field experience in religiously oriented work and programs such as those carried out in a pastoral care department, a religious service agency, a campus ministry, or a consultation center. The internship will provide for a minimum of 120 hours during the semester on the basis of a mutually satisfactory Learning Agreement agreed to by both the Department Faculty Internship Advisor and the student in consultation with the Field Supervisor. The student will be graded by Siena's Internship Faculty Advisor in the Religious Studies Department with substantial input from the Internship Supervisor in the field. Internships are restricted to junior and senior students. Prerequisite: 12 credits in Religious Studies and permission of the Department Head. (ATTR: ARTS, INT)

RELG—490. Seminar: Topics in Religious Studies 3 credits

Consideration of some topic in Religious Studies selected on the basis of faculty and student interest. Designed for majors and those with advance preparation in Religious Studies. May be taken more than once with different content. Consult Fall and Spring schedules for specific topics. (ATTR: ARTS)

RELG—499. Independent Study 1 - 3 credits

A qualified student may pursue a particular topic in Religious Studies by means of independent research, an extensive paper, and periodic discussions with a member of the department. The student must have the approval of the instructor and the Department. (ATTR: ARTS)

Social Work Department

Chair: Ms. Donna McIntosh, Prof.

Prof.: Dr. Carla J. Sofka

Asst. Prof.: Dr. Cynthia Bott, Dr. Dirk de Jong, Dr. Elisa Martin

Administrative Coordinator: Robin MacHattie

The BSW is considered the entry to the social work profession. Students with this degree can enter the workforce in any state. Some states offer licensing of the BSW practitioner. Alumni from this program work as BSW practitioners in such settings as domestic violence programs, homeless shelters, foster care agencies, nursing homes and senior services, child protective, county probation, mental health housing and case management services.

Accredited by the Council on Social Work Education (CSWE) at the baccalaureate level, and in keeping with the Liberal Arts focus and Franciscan Traditions of Siena College, and the values of our profession, our mission is:

- To prepare baccalaureate students for effective generalist social work practice, equipped with the requisite professional knowledge, values, ethics, and skills.
- To foster dynamic interactions and a healthy exchange of ideas within the Program, College, and broader community.
- To facilitate critical thinking augmented with the creativity and natural curiosity of our students.

- To promote conditions which encourage respect for human diversity.
- To foster a commitment to social, economic, and environmental justice, and provide students with strategies to eliminate human oppression, economic deprivation, and discrimination, and to become leaders in creating a just world.

1. Learning Goals / EPAS Competencies and Practice Behaviors:

Upon completion of the Social Work Program, students will possess the knowledge, values, and skills:

- To master the competencies and practice behaviors specified by CSWE
- To engage in evidence-based practice in a diversity affirming and culturally competent manner.
- To advocate for social, economic, and environmental justice through participation in social action.
- To acquire a strong professional identity through ongoing self-reflection, and a lifetime commitment to professional development.

Admission to the Social Work Program: Applicants are considered for admission to the Social Work Program based on the following criteria:

- Admission to the College.
- Submission of social work application and two letters of recommendation.
- Completion of an interview with social work faculty.
- Academic Expectations — cumulative minimum GPA of 2.5.
- Writing Proficiency — demonstrated through the required admission essay and writing sample.
- Academic, Behavioral and Ethical Expectations – defined by CSWE and outlined in the Social Work Program Handbook.

Admission Process for Current Siena Students: Formal admission to the Social Work Program is required to enter upper division courses. A student must submit an application before the end of the second semester of the sophomore year.

Admissions Process for Transfer Students: Transfer students applying for their Junior year are encouraged to formally apply to the Social Work Program at the same time they apply for admission to the College. Note: Application and admission to the College and to the Program are separate processes. Contact the Social Work Department to coordinate the application process into the Social Work Program.

Criteria for Retention in the Social Work Program: In order to remain in the Social Work Program, students must meet the following academic, behavioral, and ethical expectations:

- Academic Expectations: minimum overall GPA of 2.5 and a minimum 2.7 GPA in required Social Work major courses.
- Writing Proficiency – demonstrated through written assignments in SWRK courses.
- Behavioral Expectations – outlined in the Social Work Program Handbook and the Educational Policy and Accreditation Standards of the Council on Social Work Education.
- Ethical Expectations - outlined in the Social Work Program Handbook and the Code of Ethics of the National Association of Social Workers.

Note: Admission into the Social Work Program does not guarantee completion of the program.

Eligibility for Advanced Standing and Affiliation Agreements: Students who successfully complete all of the requirements for the Social Work Program and their Baccalaureate Degree may be eligible to apply for advanced standing in those Master of Social Work Programs that offer this status.

Note: Each MSW program has its own GPA requirements, usually 3.0 or better. If granted advanced standing, a student could be awarded significant graduate credits toward the M.S.W. degree. The Siena Social Work Program also maintains affiliation agreements with some M.S.W. degree programs. These may provide qualifying students with early admission, advanced standing and scholarship assistance. For more information, please see the “Siena College Affiliation Agreements” section of this catalog.

Requirements for the Social Work Major: In addition to meeting requirements of the College Core, students must complete 37 Social Work credits as follows: 1st year—SWRK—100 Introduction to Social Welfare and Social Work; 2nd year— SWRK—200 Social Work Practice Skills; 3rd year—SWRK—300 Human Behavior and the Social Environment I, SWRK—301 Internship in Social Work (or, by prior Department approval either PCST—

480 Internship in Peace Studies or INSA—480 Internship in Franciscan Service and Advocacy), SWRK— 310 Human Behavior and the Social Environment II, SWRK—315 Social Work Practice with Organizations and Communities, and SWRK—320 Social Work Practice with Individuals and Families; 4th year—SWRK—415 Social Work Practice with Groups, SWRK—410 and SWRK—420 Field Education I and II, SWRK— 430 Social Work Research, and SWRK—440 Social Welfare Policy.

Students must achieve and maintain a minimum social work major GPA of 2.7 for required SWRK courses following admission into the Social Work Program (i.e. Junior and Senior level courses).

Any student who falls below a 2.7 major GPA for the required SWRK courses at any point following formal admission into the program will be terminated from the program and required to declare another major. (The gap between the current major GPA and the required 2.7 GPA as well as any extenuating circumstances will be evaluated on a case by case basis according to the program's review process described in the Social Work Program Handbook.)

Requirements for the Major, B.A. in Social Work (37.000 credits):

SWRK 100	Intro Social Welfare and Social Work		3 cr.
SWRK 200	Social Work Practice Skills		3 cr.
SWRK 300	Human Behavior and the Social Environment I		3 cr.
SWRK 301	Internship in Social Work	OR	
PCST 480*	Internship in Peace Studies*	OR	
INSA 480*	Internship in Franciscan Service & Advocacy*		1-3 cr.
*Requires prior Department approval			
SWRK 310	Human Behavior and the Social Environment II		3 cr.
SWRK 315	Social Work Practice with Organizations and Communities		3 cr.
SWRK 320	Social Work Practice with Individuals and Families		3 cr.
SWRK 410	Field Education I		4 cr.
SWRK 415	Social Work Practice with Groups		3 cr.
SWRK 420	Field Education II		5 cr.
SWRK 430	Social Work Research		3 cr.
SWRK 440	Social Welfare Policy		3 cr.

Auxiliary (21.000 credits)

ATDV 110	Statistics for Social Science		3 cr.
BIOL 025	Human Biology		3 cr.
PSYC 100	General Psychology	AND	3 cr.
PSYC 220	Abnormal Psychology	OR	
PSYC 340	Human Cognition	OR	
PSYC 350	Physiological Psychology		3 cr.
SOCI 101	The Sociological Perspective	OR	
SOCI 130	The Family	OR	
SOCI 160/ENVA 140	Environment and Sociology	OR	
SOCI 180	Area Studies	OR	
SOCI 190	Crime and Justice	OR	
SOCI 220	People, Protest, Social Movements	OR	
ILST 100	Introduction to International Studies		3 cr.
ECON 101	Principles of Economics, Micro	OR	
ECON 102	Principles of Economics, Macro		3 cr.
POSC 100	Contemporary U.S. Politics	OR	
POSC 130	Political Theory	OR	
POSC 140	Comparative Politics	OR	
POSC 150	World Politics	OR	
POSC 205	State and Local Government		3 cr.

Internship and Field Education Requirements: Students complete the 50- hour SWRK—301 Internship in Social Work in the fall semester of the junior year or by special arrangement with the department. Settings must be approved in advance by the Social Work Program. With prior permission of the Department, students may substitute PCST—480 or INSA—480 for SWRK—301. SWRK—301 is a pass/fail course. Students complete 400 hours of field education through SWRK— 410, Field Education I and SWRK—420, Field Education II, taken during the fall and spring semesters of the senior year. Field education sites must be approved in advance by the Coordinator of Field Education. The Department does not assign a student to a site in which he/she is an employee. No credit is given for life/work experience. SWRK—410 and 420 are pass/fail courses.

Approval for Entry into Field Education: Because students work directly with consumers in field settings, the Department reviews the status of all students to ensure their readiness for admission into field education. Criteria for admission into field education are outlined in The Social Work Program Handbook and The Field Education Manual.

Academic Credit for Life or Work Experience: Academic credit for life experience and previous work experience is not given by the Social Work Program.

International Study Policy: Due to the sequential nature of the program's curriculum and the need for students to complete the internship and field work requirements, students who wish to complete a semester of study abroad must do so prior to beginning the fall semester of their Junior year.

Withdrawal and Readmissions Policy: Social work students who withdraw from the college prior to completing requirements must reapply to the Social Work Program if they wish to complete the program at Siena at a later date.

Description of Courses

Courses noted with an (+) are specialized professional courses, restricted to students who have been admitted into the Social Work Program.

Required Courses

SWRK—100. Introduction to Social Welfare and Social Work 3 credits

This course provides beginning knowledge and a methodology for analysis of social welfare and social work issues and problems. Social policies, programs and services designed to address these issues and problems are also presented. The course introduces the profession of social work and its theoretical approaches including Holistic, Ecological, Systems and Strengths/Capacities perspectives on the human condition. (ATTR: ARTS, CAS, FSSW, CDS)

SWRK—200. Social Work Practice Skills 3 credits

This course introduces students to the concepts and skills necessary for developing and enhancing effective interpersonal communication. Particular emphasis is placed on the interview and the techniques used to engage an individual in the helping process. Students actively participate in the learning process through class exercises, role-plays and videotaped presentations. (ATTR: ARTS)

+ SWRK—300. Human Behavior and the Social Environment I 3 credits

This course provides traditional and alternative theories and paradigms pertaining to the individual as a human system and content on other human systems with which individuals interact (families, groups, organizations and communities). The course uses an assessment framework and an integrated body of knowledge and theory to provide students with an understanding of the bio-psycho-social-cultural-spiritual dimensions of human behavior. Emphasis is placed on how diversity enriches interactions among people and how social and economic conditions may affect the well-being of people. The course also covers how social and economic injustice can create at-risk potential for discrimination and oppression. Emphasis is placed on how to apply course content to consumer situations. Prerequisites: SWRK—100 and SWRK—200 and BIOL—025 (all may be taken concurrently). (ATTR: ARTS)

+ SWRK—301. Internship in Social Work 1 credit

This internship provides majors with the opportunity to learn about the social work profession through working in a social service setting. Students provide services to individuals and explore the relationship between the organization, the community and service consumers. Emphasis is placed on understanding the role of diversity as well as the promotion of social and economic justice within the context of a community service setting.

Internship sites must be approved by the Social Work Program. This requirement may also be met by PCST—480, Internship in Peace Studies, or INSA—480, Internship in Franciscan Service and Advocacy. (ATTR: ARTS)

+ SWRK—310. Human Behavior and the Social Environment II 3 credits

This course provides content on traditional and alternative theories of human growth and development and applies these to human behavior within the context of the social environment. Building on the assessment framework presented in HBSE I, students learn to assess how gender, age, race, color, ethnicity, culture, social class, sexual orientation, socioeconomic status and disability play a role in shaping individual life experience with human systems of various size. The individual's ability to achieve optimal health and well-being throughout the life course is also examined. Emphasis is placed on how to apply course content to client/consumer situations. Prerequisites: SWRK—300. (ATTR: ARTS)

+ SWRK—315. Social Work Practice with Organizations and Communities 3 Credits

This course applies social work practice knowledge, values, ethics, and skills to working with organizations and communities. Emphasis is placed on how diversity can influence work with these systems and on practice approaches and skills used to enhance people's well-being and ameliorate environmental conditions that adversely affect such systems. Prerequisites: SWRK 200 (ATTR:ARTS)

+ SWRK—320. Social Work Practice with Individuals and Families 3 credits

This is the third of a four-part sequence of social work practice courses (SWRK 200; SWRK 315; SWRK 320; SWRK 415). It is designed to give the learner an opportunity to understand and apply BSW Generalist Practice as it relates to micro (individuals) and mezzo (families) systems. The course emphasizes the Generalist Intervention Model - engagement, assessment/data collection, planning, implementation/intervention, evaluation and termination. The course builds on working with people from diverse backgrounds. Prerequisites: SWRK—300 and SWRK—301 and SWRK—310 (SWRK—301 and SWRK—310 may be taken concurrently).

+ SWRK—410. Field Education I 4 credits

Students complete 200 hours of field experience in an approved, supervised social service organization that prepares them for generalist practice. Students also attend a two-hour, weekly integrative seminar on campus to explore practice and professional development issues related to academic and community-based field learning. A one-time on-line child abuse and neglect training is also required. Prerequisite: SWRK—320. (ATTR: ARTS)

+ SWRK—415. Social Work Practice with Groups

This course focuses on knowledge, skills, values and ethics competencies in social work practice with treatment and tasks groups. Cultural competence is emphasized in working with group members of diverse backgrounds as well as strategies for the promotion of social justice through groups. Prerequisite: SWRK—320 (ATTR: ARTS)

+ SWRK—420. Field Education II 5 credits

Students complete an additional 200 hours of field experience in their field education organizations. They also continue the two-hour, weekly integrative seminar on campus in which they further explore practice and professional development issues. Prerequisite: SWRK—410. (ATTR: ARTS)

+ SWRK—430. Social Work Research 3 credits

This course provides knowledge and skills in research methodologies used by social workers, with particular emphasis on developing research skills at the baccalaureate level of practice. Content covers values and ethics, critical thinking, culturally competent research methods with populations at risk, the scientific methodology of research as well as practice and program evaluation techniques. Prerequisite: ATDV—110. (ATTR: ARTS, INRM)

+ SWRK—440. Social Welfare Policy 3 credits

This course provides a systematic analysis of a range of social welfare policies and programs and their impact on individuals, families, groups, organizations and communities. Through the use of analytical and experiential learning, emphasis is placed on developing policy practice skills to promote social, environmental and economic justice, equality, equity and human rights within the context of political, legislative and community processes. Prerequisites: POSC—100 or POSC—130 or POSC—140 or POSC—150 or POSC—205. (ATTR: ARTS)

Elective Courses

SWRK—225. Self-Care for Future Helping Professionals 1 credit

This course provides a primary focus of developing self-care practices while providing information on the challenges associated with being in the helping profession. Students will expand their self-care toolbox as a way to defend against burnout, compassion fatigue and vicarious trauma. (ATTR: ARTS)

SWRK—250. Death, Diversity & Pop Culture 3 credits

This Franciscan Concern – Diversity course will facilitate a student’s ability to compare and contrast beliefs, practices, and legal/ethical issues related to life-threatening and terminal illness/the dying process, death, and rituals/customs related to funerals and grief from historical, religious/spiritual, and cultural perspectives. Factors that influence individual and societal reactions to death-related and non-death loss events will also be examined. Since digital and social media are changing how our society deals with these thanatology-related issues, the ways that “thanatechnology” is being used across the lifespan by those who are ill, dying, and grieving will be explored. Potential benefits, risks, and ethical dilemmas regarding the availability of these resources will be discussed. Field trips will provide opportunities to learn about the process of planning a funeral and options for the disposition of human remains (burial vs. cremation) as well as how museums (e.g., the NYS Museum – World Trade Center exhibit) serve as healing spaces to cope with tragedy. The presence of thanatology-related issues in popular culture will also be explored. (ATTR: ARTS, CFD)

SWRK—452. Social Work Practice: Drugs and Alcohol 3 credits

This course provides a review of the fundamental aspects of alcoholism and drug abuse in contemporary society, particularly as they relate to generalist social work practice. Areas to be covered include: a historical perspective of intoxicants, the psychopharmacology and biochemistry of alcohol and substance abuse, models for understanding addiction, family dynamics related to chemical dependency, treatment aspects of alcoholism and chemical dependency, and a history of legislation, policy and legal issues pertaining to alcoholism and substance abuse. (ATTR: ARTS, HSMR, JMN)

SWRK—453. The Wheel of Life: Perspectives on Loss & Grief 3 credits

Taught in seminar style and drawing from social work, Franciscan, and other related perspectives, students will explore how loss and grief interrelate with nature and the natural world. Within the spectrum of diversity based on gender, age, race, ethnicity, culture, disability, religion and spirituality, social class, and through broader context of scientific methods of inquiry, students will critically analyze quantitatively and qualitatively based models pertaining to stages/phases of grief and loss. (ATTR: ARTS, CFN, HSMR, NOEX)

SWRK—454. Health Care Communication Skills 3 credits

This course explores the knowledge and skills necessary for effective interpersonal communication, as they relate to working effectively with others in a therapeutic health care relationship. Emphasis is placed on self-awareness, skill development exercises, and the roles of diversity and culture in shaping the communication process. Contemporary topics in health care communication are integrated throughout, such as health literacy and use of technology-mediated communication. Concepts and techniques taught will be demonstrated and practiced in class and applied through assignments. This course covers content often found in medical school communication training. Restricted to BIBA majors with senior standing. (ATTR: ARTS)

SWRK—460. Relationship Violence 3 credits

This course is designed to give students a deeper understanding of the definitions of relationship violence, including the impact it has in society. Topics to be covered include adult domestic violence, physical and sexual child abuse, child neglect, rape, elder abuse, abuse in the gay and lesbian communities, and pet abuse. In addition, we will evaluate the various impacts of the violence across socioeconomic lines, and the role that gender plays in adult domestic violence. We will also review how social service systems, including social work, education, medical professionals, and the criminal justice system, play a part in the perpetuation of the various types of violence and how they are attempting to reduce the effects of this problem on our society. The course format includes lecture, presentations, discussion, reading assignments, papers, and examinations. (ATTR: ARTS, JMN, MULT, PCST, WSTU)

SWRK—466. Topics in Social Work 3 credits

Faculty present a special topic for intensive study and discussion. Open to majors and other students with permission of the instructor. Consult fall and spring schedules for specific information. This course may be taken more than once with different content. An additional fee may be required, depending on the topic offered. (ATTR: ARTS)

SWRK—499. Independent Study in Social Work 1— 3 credits

Qualified students are encouraged to undertake an independent study project in their junior or senior year. Such a project requires the approval of the faculty member supervising the project and the department head. The student qualifies for credits by the submission of a satisfactory written report. When appropriate, an examination may be required. Students are limited to no more than one independent study project in any academic year. (ATTR: ARTS)

Sociology Department

Chair: Dr. Beverly J. Thompson, Assoc. Prof.
Prof.: Dr. Duane A. Matcha
Assoc. Prof.: Dr. Suvarna Cherukuri, Dr. Sudarat Musikawong
Asst. Prof.: Dr. Rong Fu

Mission: The Department of Sociology prepares students to be critical observers and engaged participants in the social world. We are committed to teaching, mentoring, advising, and engaging in collaborative research with students. Through these relationships, the Department develops in students the requisite skills for engaged citizenship as well as professions and careers that employ sociological insight. The program emphasizes preparation for graduate-professional studies and employment in sociology, mass communications, criminal justice, law, health professions, education, environmental policy, public policy, urban planning, community organizing, community development, human services and the business world.

Requirements for the Major, B.A. in Sociology (36.000 credits):

SOCI 101	The Sociological Perspective	OR	
SOCI 120	Global Social Problems	OR	
SOCI 130	The Family		3 cr.
SOCI 304	Research Methods I		3 cr.
SOCI 306	Research Methods II		3 cr.
SOCI 390	Social Theory Seminar		3 cr.
Senior Capstone			
SOCI 490	Seminar in Sociology		3 cr.
SOCI 495	Senior Capstone Thesis		3 cr.
Four courses with a SGLB attribute			12 cr.
Sociology Electives			6 cr.

Auxiliary (6.000 credits)

ATDV 110	Statistics for Social Science	OR	
QBUS 200	Business Statistics I		3 cr.
ECON 102	Principles of Economics, Macro		3 cr.

Department Colloquia: All Sociology Majors are expected to attend at least one of four colloquia on career and research topics offered annually by the Department.

Requirements for the Minor, Sociology (18.000 credits):

Minor will consist of at least six courses (18 credit course) in Sociology, which must include **one** of the following:

SOCI 101	The Sociological Perspective	OR	
SOCI 120	Global Social Problems	OR	
SOCI 130	The Family		3 cr.
Four Sociology courses from SOCI 201 through 499			12 cr.
Sociology Elective			3 cr.

Departmental Colloquia: All Sociology Majors are expected to attend at least one of four colloquia on career and research topics offered annually by the department.

Education Certification: Sociology majors seeking initial teaching certification (grades 7-12) in Social Studies should consult the Education Department head for specific requirements in Education. They must meet all the requirements listed above, except that they are only obliged to take a total of 30 hours in Sociology. The following are also required: Three hours in Economics, three hours in Political Science, and 21 hours in History, including the College core requirement of three hours in History. The program must include six hours in each of three areas: European History (e.g., HIST—101 or 190, 102, 103); United States History (e.g., HIST—104, 105); non-Western History, as well as three hours in NY State history (HIST—266). Finally, six hours of college language other than English are required. American Sign Language (ASL) is accepted as fulfilling this

requirement. The Sociology Department requires a minimum 3.1 GPA overall and a minimum 3.1 GPA in Sociology courses for Sociology majors seeking certification in Education.

Description of Courses

There are no prerequisites for SOCI—101 through SOCI—295.

SOCI—101. The Sociological Perspective (theme varies) 3 credits

An introduction to the basic principles and perspectives of sociology through examination of a social theme selected by the instructor. Themes reflect a particular intellectual interest or focus of research of the faculty member. Examples of potential themes include but are not limited to: global warming, business and corporate social responsibility, race and racism, sex and gender, hate groups, the 1960s, social problems, state and democracy, civic engagement, health and illness, and so forth. (ATTR: ARTS, CAS, CDS, STVS)

SOCI—120. Global Social Problems 3 credits

The study of those socially constructed institutions, beliefs, and conditions that result in differential outcomes within various populations in countries around the world. The course employs appropriate sociological theories and methodologies as it addresses not only the cause of social problems, but also their interrelationship with other problems as well as possible solutions. (ATTR: AMSB, ARTS, FSSY, LSRG, CDS, STVS)

SOCI—130. The Family 3 credits

This course will introduce students to the sociological concepts and issues within contemporary family sociology. The intersections between the family and other social institutions will be a central component of this course. Diversity of families will be another central foundation for this course. Issues of privilege and inequality will be explored, as well as social justice as it pertains to families. (ATTR: AMSB, ARTS, LSRG, CDS, STVS, WSTU)

SOCI—140. Cultural Anthropology 3 credits

A study of humankind, its primate background, evolution, and earliest appearance. The meaning of culture, its growth and development with a cross-cultural investigation of family type, kinship organization, life cycle, subsistence pattern, human ecology, and cultural change will be pursued. (ATTR: ARTS, CAS, ILST, LSRG, MCCP, CDS, STVS)

SOCI—160. Environment and Society 3 credits

An introduction to the social aspects of environmental problems and solutions. It examines the ways in which social institutions and lifestyles lead to environmental deterioration. It also looks at the consequences of environmental decay for human health and well-being. It examines efforts to preserve the natural environment through the Environmental Movement, drives to save particular ecosystems, and changes in thinking about environmental issues. Same as ENVA—140. (ATTR: ARTS, GLST, ILST, LSRG)

SOCI—170. Popular Cultures 3 credits

The course examines popular culture and its relationship to power and society in everyday life. Popular culture includes sub-cultures, fashion, music, mass media, advertising, entertainment, and leisure. Students explore image and representation and popular culture as everyday social practices. Curriculum and assignments examine both cultural production and consumption. The course will examine gender in relation to popular culture and representation. (ATTR: ARTS, FILM, LSRG)

SOCI—180. Area Studies 3 credits

This course surveys the cultures and societies of a specified region of the world (Asia, South Asia, Africa, the Middle East, South American, the Caribbean, Australia, etc.). It covers the major institutional sectors (such as family, education, religion, politics, etc.) and social processes (such as urbanization and economic development). It also examines internal and external forces of social change in these societies. May be taken more than once with different content. (ATTR: ARTS, GLST, ILST, ISP, LSRG, MULT)

SOCI—190. Crime and Justice 3 credits

This course will examine various components of the Criminal Justice System: law enforcement, courts, and corrections. Students will adopt a critical approach to the understanding of crime and justice in America by looking at the intersection between race, class, and gender. (ATTR: ARTS, LSRG)

SOCI—210. Race and Ethnic Relations 3 credits

A critical examination of the intersection of social categories based on race, ethnicity, and gender in contemporary societies. This course will explore the intersection of these categories in regards to wealth, power, and social status. It also will cover topics such as prejudice, discrimination, and racism in society. (ATTR: AMSB, ARTS, JMN, MCCP, WSTU)

SOCI—220. Social Movements & the State 3 credits

A sociological approach of contemporary social movements with particular emphasis on grass-roots civic movements and their role in social change. An examination of current empirical and theoretical issues in the study of social movements and the political, organizational, cultural, economic, and other factors that shape emergence, development, and participation in social movements. An intersectional approach including gender, sexuality, social class, and race/ethnicity will provide a central lens for topics covered. (ATTR: ARTS, FSSY, JMN, MULT, WSTU)

SOCI—225. Sociology of Education 3 credits

Students in this course will examine the relationship between education and society from a sociological perspective. The course will examine the work of educational theorists over the last 100 years in an effort to understand the purpose of education and the various explanations for differential educational outcomes. Specifically, the readings focus on the role that class, race, language and gender play in students educational experiences and outcomes. By the end of the course, students will have increased their theoretical repertoire and will be able to analyze and discuss patterns of student achievement from a variety of perspectives. Same as EDUC-225. (ATTR: ARTS, CFJ)

SOCI—230. Gender, Power, and Society 3 credits

Critical analysis of the social construction of gender and its intersections with other relations of power, such as race, class, and sexuality. Examining issues of gender and power in a transnational context. (ATTR: ARTS, MULT, SGLB, WSTU)

SOCI—240. Growing Older in a Global Environment 3 credits

Using the aging process in the United States as a beginning point, this course transcends national borders to explore aging in a variety of nations, delineated primarily by their economic level of development. Aging populations in these countries are examined on a multiplicity of levels that include demographic changes, health characteristics, family relationships as well as the economic and political implications of this process on the larger society.(ATTR: ARTS, CFD, GLST, ILST, HSMR, SYUR, SGLB)

SOCI—260. Deviance 3 credits

An examination of the nature of deviance, the dominant theories for explaining deviant behavior, and the implications of these theories for its control. Several examples of deviance will be discussed, with emphasis on the social factors related to their occurrence and the utility of various theories in their explanation. Gender will be included as an organizing perspective on topics covered. (ATTR: ARTS, LSRG, MULT, WSTU)

SOCI—295. Sociology of Law 3 credits

Law as a social institution has an important explanatory power in the study of societies. This course examines the theoretical foundations of the study of law, its socio -historical basis and contentious legal issues. (ATTR: ARTS, JMN)

SOCI—300. Political Sociology 3 credits

The course will examine the theoretical and ideological debates related to power, state, civil society, nationalism, democratization, and globalization. Students will also examine social identities like class, race, gender, sexuality, and religion and their intersection with various political institutions. Prerequisite: SOCI—101 or SOCI—120 or SOCI—130. (ATTR: ARTS, SGLB, SYUR)

SOCI—304. Research Methods I 3 credits

An introduction to the processes and techniques of social research, including instruction in hypothesis formation, measurement, questionnaire construction, sampling, survey research and participant observation. A proposal which demonstrates a student's ability to construct a research design is required. Prerequisite: ATDV - 110 and SOCI—101 or SOCI—120 or SOCI—130. Students will be required to take ATDV 110 either before taking SOCI 304 or simultaneously with SOCI 304. (ATTR: ARTS, INRM)

SOCI—306. Research Methods II 3 credits

This course will examine basic techniques for collecting, interpreting, and analyzing qualitative data. Research strategies like ethnography, narrative analysis, text or discourse analysis, visual analysis, case study, grounded theory, oral/life history, focus groups, etc. will be examined. Students will be required to do a project that will be based on qualitative methodology. Students will also address issues of ethical responsibility while conducting qualitative research. Prerequisite: ATDV - 110, SOCI—101 or SOCI—120 or SOCI—130 and SOCI—304. Students will be required to take ATDV 110 either before taking SOCI - 306 or simultaneously with SOCI-306. (ATTR: ARTS)

SOCI—310. Theories of Criminology 3 credits

This course traces the historical development of major schools of thought in criminology (Classical Theory to more recent theories in feminist criminology and postmodern criminology). Emphasis will be placed on student's ability to critically analyze these theories and their underlying assumptions.

Prerequisite: SOCI—101 or SOCI—120 or SOCI—130. (ATTR: ARTS)

SOCI—315. Social Epidemiology 3 credits

This course introduces students to the fundamentals of epidemiology. This includes basic principles and methods used in epidemiology such as research design, outcome measures and cause and effect. In addition, this course examines social interactions and how they affect health. More specifically, why these interactions result in differential health outcomes within a given population. Furthermore, this course addresses those economic and social forces that create these differential health outcomes. Prerequisite: SOCI—101. (ATTR: ARTS, HLTH)

SOCI—320. Global Cities 3 credits

Examination of the sociological character of cities, approaches to studying cities and urbanization, and social problems unique to cities. Analysis of urban growth/decline, global social/political/economic forces on cities, and the variety of urban social environments. Examination of social organization, culture, power, planning and governance, and the future of the global city. Prerequisite: SOCI—101 or SOCI—120 or SOCI—130. (ATTR: ARTS, GLST, ILST, SYUR, SGLB)

SOCI—321. Rural Sociology 3 credits

This course has a significant focus on the challenges faced by people and communities dealing with poverty in rural North America. It critically examines community development and community needs/challenges unique to a rural setting. This is a travel/ immersion course with the travel being done in August of the sophomore year to a rural community outside Siena's immediate geographic region. Prerequisites: SOCI—101 or SOCI—120 or SOCI—130. (ATTR: ARTS)

SOCI—330. Sociology of Organizations and Work 3 credits

The study of formal organizations in a comparative framework. The course will examine the social causes of the development of formal organizations, analyze the internal structure of some types of formal organizations such as corporations, government agencies, hospitals, and universities, and look at the impact of that structure on the achievement of individual, organizational, and societal goals. Prerequisite: SOCI—101 or SOCI—120 or SOCI—130. (ATTR: ARTS, SYUR)

SOCI—350. Wealth and Power in Contemporary Society 3 credits

This course examines the social mechanisms through which power, wealth, and prestige are distributed in contemporary societies with special attention to such major determinants as race, sex, property, and occupation. Some time will be spent on the consequences of the class structure for lifestyle. The course also examines rates and patterns of social mobility in modern societies. Prerequisite: SOCI—101 or SOCI—120 or SOCI—130. (ATTR: ARTS, FSSY, SYUR)

SOCI—370. Medical Sociology 3 credits

This course provides the intellectual foundation upon which the social characteristics and implications of health and health care are understood in the United States and other nations from a global perspective. This foundation is based on an analysis of key social factors and actors including health and illness behavior, the sick role, mental illness, physicians, nurses, alternative practitioners and practices as well as the role of the hospital and medical terminology. Prerequisite: SOCI—101 or SOCI—120 or SOCI—130. (ATTR: ARTS, GLST, ILST, HSMR, SGLB, SYUR)

SOCI- 375 Health Care in the Developed World 3 credits

This course examines health care systems, their policies and outcomes throughout the developed world. The delivery of care, organizational structure, the impact of political and economic characteristics as well as health outcomes within populations provide the framework within which health systems are analyzed. In addition, the impact of health care policies on the larger society as well as emerging trends and problems are explored. Prerequisite: SOCI—101 or SOCI—120 or SOCI—130. (ATTR: ARTS, GLST, ILST, SGLB)

SOCI—376. Health Care in the Developing World 3 credits

Beginning with the two developing countries (China and India) that together represent forty percent of the world's population, this course takes students beyond the confines of allopathic medicine and into a world where traditional medicine and its practitioners provide health care to the general population. A significant

component of the course explores the increasing interface between traditional forms of health care and allopathic medicine and the wide-ranging economic, political, and social realities that fragment populations and the impact of these realities on health and health outcomes. Prerequisites: SOCI-101 or 120 or 130. (ATTR: ARTS, GLST, HSMR, ILST, SGLB).

SOCI—380. Population Problems 3 credits

A study of population trends across the world. The course will be organized around three basic variables: fertility, mortality, and migration. Prerequisite: SOCI—101 or SOCI—120 or SOCI—130. (ATTR: ARTS, GLST, ILST, SYUR, SGLB)

SOCI—385. Topics in Sociology 3 credits

This course concentrates on one area of sociological research or theory not covered in regular course offerings. May be taken more than once with different content. Consult Fall and Spring schedules for specific topics. Prerequisites: SOCI—101 or SOCI—120 or SOCI—130. (ATTR: ARTS)

SOCI—390. Social Theory Seminar 3 credits

An analysis of sociological thought with an emphasis on those theorists and concepts that have had great impact on modern sociological theory and research. (ATTR: ARTS)

SOCI—400. through SOCI—499 require junior or senior status and nine credits from SOCI—201 through SOCI—385, or consent of the instructor.

*****SOCI—470. Practicum in Sociological Research 3 credits**

This course is designed to give the student experience in doing research by working in a professional research project being carried out by the instructor. Depending on the particular project, the student may acquire skills in sampling research design, data collection and measurement, data analysis, and research report writing. (ATTR: ARTS)

SOCI—480. Internship in Sociology 3 credits

This course provides field experience in community service agencies, research organizations, advocacy groups and business firms. The student will work for at least ten hours per week under the direction of a professional supervisor in the sponsoring organization. In addition, the student will meet periodically with a member of the Sociology Department faculty and will prepare a written report at the end of the internship. Only seniors and juniors with a grade point average of at least 2.75 will be eligible. No student can enroll for more than two internships during his or her college career. Prerequisites: 12 credits in Sociology and permission of the supervising faculty member. (ATTR: ARTS, INT)

The senior thesis is a part of the 1-year capstone sequence. Students will write a research paper, 25-30 pages in length, addressing an area of special interest to the students. The paper will be based on original scholarly work, data collection, or an internship field study. Students should have their thesis topic selected during the fall semester of their senior year in SOCI 490 (Senior Capstone Seminar). Prerequisites: Senior standing (90 hours) SOCI 101 or SOCI 120 or SOCI 130 or SOCI 140 and SOCI 304, SOCI 306, SOCI 390, SOCI 490.

SOCI—490. Seminar in Sociology 3 credits

A special topic will be selected for intensive study and discussion. Consult fall and spring schedules for specific information. May be taken more than once with different content. (ATTR: ARTS)

SOCI—495. Senior Capstone Thesis 3 credits

The senior thesis is a part of the 1-year capstone sequence. Students will write a research paper, 25-30 pages in length, addressing an area of special interest to the students. The paper will be based on original scholarly work, data collection, or an internship field study. Students should have their thesis topic selected during the fall semester of their senior year in SOCI 490 (senior capstone seminar). Prerequisites: Senior standing (90 hours) SOCI 101 or SOCI 120 or SOCI 130 and SOCI 304, SOCI 306, SOCI 390 and SOCI 490. (ATTR: ARTS)

SOCI—499. Independent Study 1 - 3 credits

Qualified students are encouraged to undertake an independent study project in their junior or senior year. Such a project requires the approval of the faculty member supervising the project and the department head. The student qualifies for his or her grade and credits by the submission of a satisfactory written report. When appropriate, an examination may be required. Students are limited to no more than one independent study project in any academic year. (ATTR: ARTS)

School of Business

Dr. Charles F. Seifert, Dean

Dr. Cheryl L. Buff, Associate Dean

Mr. Jamie S. Casline, M.S., Assistant Dean for Administration

Ms. Diane J. Hannahs, M.S., Assistant Dean

Dr. Chester H. Brearey, Director of Master of Science in Accounting

Ms. Lori L. Lasch, Associate Director of Master of Science in Accounting

Mr. Matthew J. Cusack, Executive Director, Stack Center for Innovation and Entrepreneurship

Dr. Erik R. Eddy, Executive Director, Institute for Leadership Development

Dr. Fang (Jenny) Zhao, Director, Hickey Financial Technology Center

The School of Business, accredited by the prestigious accrediting body AACSB International, offers undergraduate programs in Accounting, Business, Economics, Finance, Management and Marketing. Certificate programs are available in two areas: Accounting, and International Studies, Foreign Language and Business. Minors are offered in Business, Economics, Entrepreneurship, Human Resource Management, Management and Marketing. The School of Business also administers the Health Services Administration minor and the Certificate in Risk Management.

Mission: We empower students with the knowledge and values to lead, serve, and succeed in their careers, communities and lives.

Vision: To be the standard of educational excellence for a diverse learning community developing business minds for today and the future.

In support of our mission and vision: The School of Business provides intellectually challenging educational programs in Accounting, Economics, Finance, Marketing and Management. Students are exposed to teaching strategies and modes of evaluation designed to emphasize active learning, collaborative activities, and critical and creative intellectual inquiry.

Creed: Excellence in every interaction.

In support of the College's liberal arts and Franciscan mission, the School of Business strives to empower its students to address the challenges of an ever-changing world and a diverse society. Study in the liberal arts serves to inculcate and nurture the importance of life-long learning in our students. The Franciscan values imparted to our students provide a moral compass for future behavior.

The School of Business requires students to master the foundation and functional knowledge and perspectives common to all business disciplines. Students are expected to develop the ability to define and synthesize, to form independent, well-reasoned judgments, and to understand common business research methods and practice. Students will attain discipline-specific knowledge through studies in their major fields.

Undergraduate Learning Goals: The School of Business provides intellectually challenging educational programs in Accounting, Business, Economics, Finance, Management and Marketing that empower our students to address the challenges of a dynamic global and diverse society. Each School of Business graduate will attain the following outcomes:

Problem Solving

Think critically and creatively to solve complex organizational problems, using appropriate and analytic and quantitative techniques while integrating knowledge and skills from various disciplines.

Communication

Communicate orally and in writing using language appropriate to the audience.

Teamwork and Leadership

Demonstrate respect, responsibility, and a focus on serving others as a leader and team member.

Moral Consideration

Work toward a just, peaceable, and humane solution with thoughtful consideration of the impact on all stakeholders, the external environment, and the natural world.

Life-long Learning

Pursue opportunities that provide growth as an individual and as an organizational member.

Business Specialization

Develop competency in a chosen business discipline(s).

Teaching and learning are of paramount importance. The faculty should:

- offer students the opportunity to be known as individuals;
- use a wide variety of teaching and learning techniques and the diversity of skills necessary for critical and creative intellectual inquiry;
- challenge students to work toward attaining their best performance levels;
- utilize the curriculum to help students identify the ethical dimensions embedded in business decisions;
- provide opportunities throughout the curriculum for students to enhance written and oral communications;
- immerse students in a learning environment which blends current business theory and practice.

Student learning is enriched by faculty and student interaction with business, non-profit, and government enterprises through means such as international and domestic student internships, faculty externships, and business speaker series.

The School of Business is composed of a dedicated faculty of teachers who are accomplished classroom instructors, who provide a blend of theoretical and practical aspects of their discipline and who primarily engage in pedagogical and applied business activities and profession/community service on a regular basis. School of Business faculty members believe teaching and scholarly activities are interrelated. Scholarly activity increases faculty effectiveness in the classroom by enabling faculty members to incorporate the latest business theories and practices in their teaching. In this light, the business faculty conducts research to enhance teaching, improve management practices, and contribute to the body of knowledge in various management disciplines.

Curriculum: Students in the School of Business take college core courses; pre-business foundation and skills courses; common business core courses; courses in a chosen major and electives for a total of 120 credit hours.

Liberal Arts and Science Requirements: College wide core and other liberal arts and science electives and requirements.

Pre-Business Foundation and Skills (12.000 credits AND 5 courses)

ECON 101	Principles of Economics, Micro		3 cr.
ECON 102	Principles of Economics, Macro		3 cr.
QBUS 100	Math for Decision Making I		3 cr.
QBUS 110	Math for Decision Making II	OR	
MATH 110	Calculus I		3 cr.
CSIS 010	Intro to Computer Applications	OR	3 cr.
CSIS 011	Problem Solving With Spreadsheets	OR	1 cr.
CSIS SSX	Spreadsheet Exam		0 cr.

Business Core (31.000 credits AND 10 courses)

ACCT 200	Financial Accounting		3 cr.
ACCT 205	Managerial Accounting		3 cr.
BLAW 200	Legal Environment of Business		3 cr.
BUDV 450	Organizational Strategy		3 cr.
CSIS 114	Management Information Systems*		3 cr.
FINC 301	Managerial Finance I		3 cr.
MGMT 211	Management		3 cr.
MRKT 212	Marketing		3 cr.
QBUS 200	Business Statistics I*		4 cr.
MGMT 300	Operations Management		3 cr.

*Counts as liberal arts/science credit

A student majoring in a business discipline must earn a minimum of grade C- in business core courses. The minimum C- grade requirement does not pertain to pre-business and foundation skills courses (except economics majors must earn a minimum grade of C- in ECON 101 and ECON 102).

All students are encouraged to take advantage of the academic opportunities offered within Siena College including minors, study abroad programs, and the Honors Program. To aid students in accomplishing their educational and career goals, students are encouraged to meet periodically with their advisors.

Major Course Requirements: Major requirements are listed under the individual departments.

Accelerated Degree Option: For highly motivated students, Siena College offers an accelerated 3 year undergraduate degree program in all School of Business majors. For additional information, please contact Dr. Cheryl Buff (cbuff@siena.edu).

Business Major – A flexible multidisciplinary business major

The School of Business core curriculum provides an overview of critical business disciplines including accounting, economics, finance, management, marketing and essential quantitative analysis skills. The Business major enables students to gain valuable depth in two of these critical business subjects. In addition to the Pre-Business Foundation and Skills courses and the Business core, students are required to select at least two concentrations (15 credits each) from a broad range of business disciplines. The requirements for each concentration are detailed below. The specific courses in these concentrations should not permit more than two overlapping courses.

The 20 concentrations are:

Interdisciplinary

1. International Business
2. Entrepreneurship

Accounting

3. Accounting Theory and Fundamentals
4. Corporate Accounting and Internal Controls
5. Governmental and Not-for-Profit Accounting

Economics

6. Foundations of Economics
7. Real World Economics

Finance

8. Fundamentals of Finance
9. Investment Fundamentals
10. Corporate Finance
11. Financial Planning

Management

12. Strategic Human Resource Development
13. Leadership
14. Not-for-Profit Consulting
15. Strategic Communication

Marketing

16. Marketing Research and Analytics
17. Sales and Business to Business Marketing
18. Marketing Communications and Digital Marketing
19. Sports and Services Marketing

Quantitative Business

20. Business Analytics

Students seeking greater specialization in a specific business discipline should consider pursuing the major in that subject area.

In situations where a specific course (or courses) in the concentrations overlap, additional business electives will need to be taken to substitute for the overlapping course(s) between the concentrations. The business electives will be selected after consultation with an academic advisor to determine the best mix of courses to prepare the student for their career and educational goals. The electives must have the BUS attribute, be at the 200 level or greater, and may not be part of the Pre-business Foundation and Skills or Business Core Classes.

Similar to a minor, students can major in a field from the Schools of Liberal Arts or Science and also pursue a concentration. Additionally, School of Business students majoring in something other than the BS in Business can pursue a concentration to complement their degree.

Requirements for the Major, B.S. in Business (30.000 credits):

Concentration 1	15 cr.
Concentration 2	15 cr.

Concentration: International Business

This concentration prepares students for the expanding and dynamic field of international business. Students with an international business concentration will have an enhanced understanding of what is required to be successful in an international arena. Courses in the concentration will provide students with knowledge and skills to necessary effectively manage, finance, market and understand the international aspects of business.

Requirements for the Concentration in International Business (15.000 credits):

ILST 100	Introduction to International Studies	3 cr.
ECON 225	Comparative Economics	3 cr.
FINC 413	International Finance	3 cr.
MGMT 334	International Management	3 cr.
MRKT 334	International Marketing	3 cr.

Concentration: Entrepreneurship

This concentration introduces students to the knowledge and skills necessary to create, identify, and effectively implement innovative ideas in the marketplace. Consistent with the mission, students will think creatively and critically as they identify opportunities and develop strategies to pursue them.

Requirements for the Concentration in Entrepreneurship (15.000 credits):

One introductory level course	3 cr.
Four upper level courses	12 cr.

Introductory Level Courses

Non-business Majors

ENTR 210	Introduction to Business and Entrepreneurship	3 cr.
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Business Majors

MRKT 212	Marketing	3 cr.
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(Marketing Majors may substitute ACCT 200 or ACCT 205)

Upper Level Courses - All Majors

ENTR 332	New Product Development	3 cr.
ENTR 310	Entrepreneurship and New Venture Creation	3 cr.
ENTR 410	Entrepreneurship and Small Business Development	3 cr.
ENTR 430	Entrepreneurial Finance	3 cr.

Concentrations in Accounting

Accounting students at Siena are educated in advanced principles, theories and real-world applications of accounting.

There are three 5-course Accounting Concentrations available for students who wish to pursue their studies in the field of professional level Accounting: (a) Accounting Theory and Foundations, (b) Corporate Accounting and Internal Controls, and (c) Governmental and Not-for-Profit Accounting. These Concentrations and their course requirements are listed below.

The first Accounting Concentration, Accounting Theory and Foundations, offers a significant level of professional level accounting and technical education to students. The Accounting Theory and Foundations Concentration can be combined with a concentration in another area, such as Finance or Marketing, for a powerful and interdisciplinary educational experience.

The other two concentrations in Accounting are specifically designed as technical specialization concentrations for students who wish to pursue careers in Corporate Accounting, Governmental, or Not-for-Profit Accounting.

Both of these concentrations require that students also complete the Accounting Theory and Foundations Accounting Concentration. Thus, the student is choosing to do a “Double Concentration” in Accounting. Since the concentrations may be undertaken concurrently, each student’s Accounting Academic Advisor will work with the student to ensure that the accounting classes and other prerequisites are taken in the appropriate sequence.

Students who choose to “Double Concentrate” in Accounting can also prepare for an MS in Accounting (and the CPA exam) by taking a few additional specific undergraduate electives in Business Law and Accounting. Students who wish to undertake this path should make their Accounting Academic Advisor aware of their goal as early in their educational planning as possible, so that they can be appropriately advised.

Concentration: Accounting Theory and Foundations

The Accounting Theory and Foundations concentration, offers a significant level of professional level accounting and technical education to students. The Accounting Theory and Foundations Concentration can be combined with a concentration in another area, such as Finance or Marketing, for a powerful and interdisciplinary educational experience.

Requirements for the Concentration in Accounting Theory and Foundations (15.000 credits):

ACCT 300	Intermediate Accounting I	3 cr.
ACCT 305	Intermediate Accounting II	3 cr.
ACCT 340	Tax Accounting	3 cr.
ACCT 350	Cost Accounting	3 cr.
ACCT 370	Accounting Information Systems	3 cr.

Concentration: Corporate Accounting and Internal Controls

The Corporate Accounting and Internal Controls concentration is specifically designed to provide technical specialization for students who wish to pursue careers in Corporate Accounting. This concentration must be combined with the Accounting Theory and Foundations concentration.

Requirements for the Concentration in Corporate Accounting and Internal Controls (30.000 credits):

Concentration in Accounting Theory and Foundations	15 cr.
ACCT 450 Advanced Cost Accounting	3 cr.

Students may choose one course from the Internal Controls Electives: 3 cr.

ACCT 460	Internal and Performance Auditing	OR
ACCT 462	Fraud and Forensics	

Students may choose one course from the Systems Electives: 3 cr.

ACCT 470	Accounting Systems and Data Processing	OR
ACCT 472	Computer Audit and IT Controls	OR
CSIS 110-499	Computer Science Elective	

Students may choose two courses from the following Applied Area Electives: 6 cr.

FINC 302	Managerial Finance II
MRKT 329	Pricing Strategy & Marketing Analytics
MRKT 342	Services Marketing
BUDV 482*	Internship (Corporate Internship recommended)

*The BUDV 482 - Internship Course may be taken twice (for a total of 6 credits) to fulfill the Applied Area Electives. However, students planning to pursue an MS in Accounting should speak to their Accounting Academic Advisor before choosing to take two undergraduate Internships.

Concentration: Governmental and Not-for- Profit Accounting

The Governmental and Not-for-Profit Accounting concentration is specifically designed to provide technical specialization for students who wish to pursue careers in Governmental and Not-for-Profit Accounting. This concentration must be combined with the Accounting Theory and Foundations Concentration.

Requirements for the Concentration in Governmental and Not-for-Profit Accounting (30.000 credits):

Concentration in Accounting Theory and Foundations	15 cr.
ACCT 420 Governmental and Not-for-Profit Accounting	3 cr.

Students may choose one course from the Internal Controls Electives:	3 cr.
ACCT 460 Internal and Performance Auditing OR	
ACCT 462 Fraud and Forensics	

Students may choose one course from the Systems Electives:	3 cr.
ACCT 470 Accounting Systems and Data Processing OR	
ACCT 472 Computer Audit and IT Controls OR	
CSIS 110-499 Computer Science Elective	

Students may choose two courses from the following Applied Area Electives:	6 cr.
FINC 422/ECON 320 Public Finance	
POSC 100 Contemporary U.S. Politics	
POSC 205 State and Local Government	
POSC 260 Public Administration	
POSC 265 Public Policy	
SWRK 100 Introduction to Social Welfare and Social Work	
COMD* Community Development Internship	
BUDV 482* Internship (Governmental or Not-For-Profit Internship Recommended)	

*The COMD and BUDV 482 Internship Course may be taken twice (for a total of 6 credits) to fulfill the Applied Area Electives. However, students planning to pursue an MS in Accounting should speak to their Accounting Academic Advisor before choosing to take two undergraduate Internships.

Concentrations in Economics

There are two 5-course Economics Concentrations available for students who wish to pursue their studies in the field of Economics: (a) Foundations of Economics and (b) Real World Economics. Only one concentration offered by the Economics Department may be used to fulfill the requirements for the Business major in the School of Business. Students who are interested in both the Foundations of Economics and Real World Economics should strongly consider choosing Economics as their major.

Concentration: Foundations of Economics

This concentration provides students with an introduction to economic analysis and theory, as well as its application to current events. Students will use theoretical models, quantitative and qualitative tools, and critical thinking to develop a deep understanding of economic issues and policy solutions. This concentration prepares students for careers in public administration, law, business and entrepreneurship. It is also preparation for further graduate training in a variety of disciplines such as economics, law, management, marketing, finance, public policy, and public health.

Requirements for the Concentration in Foundations of Economics (15.000 credits):

ECON 201 Microeconomic Analysis	3 cr.
ECON 202 Macroeconomic Analysis	3 cr.
ECON 430 Econometrics	3 cr.

Students may choose one course from the following Elective Courses:	3 cr.
ECON 335 Political Economy OR	
ECON 235 History of Economic Doctrines OR	
ECON 255 Comparative Economics OR	
ECON 360 Economic Development	

Students may choose one course from the following Elective Courses:	3 cr.
ECON 480 Internship OR	
ECON 499* Independent Study	

*Students must qualify to undertake an Independent Study

Concentration: Real World Economics

Why did banks fail in the Great Recession of 2008? How does who you are matter for what you get paid? Does college pay? This concentration explores headlining economic debates and helps students refine their opinions on sensitive and important real world issues using economic thinking and data. The critical thinking skills that students acquire in these classes are applicable to careers in public policy, Not-for-Profit and international development, banking and finance, education, and communications. It is also preparation for further graduate training in a variety of disciplines such as economics, law, management, marketing, finance, public policy, and public health.

Requirements for the Concentration in Real World Economics (15.000 credits):

ECON 201	Microeconomic Analysis	3 cr.
ECON 430	Econometrics	3 cr.

Students may choose three courses from the following Elective Courses: 9 cr.

ECON 230	U.S. Economic History
ECON 235	History of Economic Doctrines
ECON 240	Environmental Economics
ECON 255	Comparative Economics
ECON 310	Financial Crises
ECON 320	Public Economics and Finance
ECON 322	Economics of Poverty
ECON 325	Health Economics
ECON 328	Labor Economics
ECON 332	Economics of Crime
ECON 335	Political Economy
ECON 337	Political Economy of Race, Class, and Gender
ECON 360	Economic Development
ECON 362	Latin American and Caribbean Economic Development
ECON 370	International Trade Theory

Concentrations in Finance

Finance students at Siena are educated in advanced principles, theories and real-world applications of investments and financial management.

There are four 5-course Finance Concentrations available for students who wish to pursue their studies in the fields of: (a) Fundamentals of Finance, (b) Investment Fundamentals, (c) Corporate Finance, and (d) Financial Planning.

Concentration: Fundamentals of Finance

The Fundamentals of Finance concentration is intended for students interested in combining a broader understanding of corporate finance and investments with another discipline.

Requirements for the Concentration in Fundamentals of Finance (15.000 credits):

FINC 215	Institutions and Investing	3 cr.
FINC 302	Managerial Finance II	3 cr.
FINC 315	Advanced Investments: Theory & Practice	3 cr.
FINC 413	International Finance	3 cr.
One Finance Elective		3 cr.

Concentration: Investment Fundamentals

The Investment Fundamentals concentration is intended for students interested in building a deeper understanding of the investment aspects of finance, including debt and equity investing, portfolio management and risk.

Requirements for the Concentration in Investment Fundamentals (15.000 credits):

FINC 315	Advanced Investments: Theory & Practice	3 cr.
FINC 432	Portfolio Management	3 cr.
FINC 434/435	Student Managed Fund	3 cr.
Two Finance Electives		6 cr.

Concentration: Corporate Finance

The Corporate Finance concentration is intended for students interested in building a deeper understanding of corporate finance, including budgeting, raising capital, capital structure, capital budgeting and risk management.

Requirements for the Concentration in Corporate Finance (15.000 credits):

FINC 302	Managerial Finance II	3 cr.
FINC 418	Case Problems in Financial Management	3 cr.
FINC 425	Advanced Corporate Finance	3 cr.
Two Finance Electives		6 cr.

Concentration: Financial Planning

The Financial Planning concentration is intended for the student interested in personal financial planning for individuals or families. Financial planning involves the life-long stewardship of financial resources, including investments, insurance, retirement planning, estate planning, and personal taxes.

Requirements for the Concentration in Financial Planning (15.000 credits):

FINC 330	Introduction to Financial Planning	3 cr.
FINC 340	Insurance and Risk Management	3 cr.
ACCT 340	Taxation	3 cr.
FINC 345	Estate Planning	3 cr.
FINC 440	Financial Plan Development	3 cr.

Concentrations in Management**Concentration: Strategic Human Resource Development**

This series of courses examines the critical role of human resource management in achieving an organization's strategic objectives. Emphasis is on skills and techniques for developing an integrated approach towards human resource functions aligned with the organization's strategy. Topics in these courses include human resource theories and principles, and practical skills including planning, recruiting, selecting, developing, training, compensating and retaining world, including thinking like an entrepreneur, communicating with confidence, energizing a team toward high performance and making informed decisions. This concentration is excellent preparation for students who want to start a business, work in the public or private sectors, join a not-for-profit or pursue graduate education.

Requirements for the Concentration in Human Resource Development (15.000 credits):

MGMT 113	Business Communication	3 cr.
MGMT 211	Management	3 cr.
MGMT 329	Organizational Behavior	3 cr.
MGMT 332	Human Resource Management	3 cr.
MGMT 432	Strategic Human Resource Management	3 cr.

Concentration: Leadership

No matter your major- finance, accounting, marketing, economics, history, psychology, computer science, biology, etc. - if you perform well in your job, you will soon be promoted to a leadership role. Being a good leader requires a different set of knowledge and skills than you've learned in your other classes. Courses in this concentration will provide in-depth knowledge on leadership theories and insight into effective, ethical leadership practices. Students will examine and develop their own leadership style and sharpen skills that apply to an ever-changing world, including thinking like a leader, leading and energizing teams, communicating with confidence, and making informed decisions. This concentration is excellent preparation for students who want to start a business, work in the public or private sectors, join a not-for-profit or pursue graduate education.

Requirements for the Concentration in Leadership(15.000 credits):

MGMT 113	Business Communication	3 cr.
MGMT 211	Management	3 cr.
MGMT 339	Leadership	3 cr.
MGMT 445	Strategic Leadership	3 cr.

Students may choose one course from the following Elective Courses:

MGMT 230	Project Management	OR	
MGMT 327	Government and Business	OR	
MGMT 334	International Management		3 cr.

Concentration: Not-for-Profit Consulting

This series of courses will examine the role of consulting as an opportunity to enhance Not-for-Profit performance and sustainability. Emphasis will be placed on skills and techniques for providing consulting services to Not-for-Profits. Topics in these courses will include consulting skills, technical skills, and social justice. Students will learn and practice skills that will enhance their consulting abilities. This concentration is excellent preparation for students who want to work as a consultant with a specific emphasis on Not-for-Profits.

*Students pursuing this concentration must apply for, and be accepted into, the NEXT program through the Academic and Community Engagement Office prior to senior year.

Requirements for the Concentration in Not-for-Profit Consulting (15.000 credits):

MGMT 211	Management	3 cr.
MGMT 220	Management Consulting	3 cr.
COMC 300	Community Development Practicum	6 cr.
COMC 400	Community Development Capstone	3 cr.

Concentration: Strategic Communication

This series of courses will examine the critical role of strategic business communication in achieving an organization's objectives, including during times of crisis. Emphasis will be placed on skills and techniques for developing an integrated approach towards communication and strategy. Topics in these courses will include business communications, the functions of management, project management and ethics. Students will learn and practice skills that apply to the changing the world, including how to manage and communicate during times of organizational change, communicating in times of crisis, managing conflict, dealing with news media, community and other stakeholders, and communicating to manage and implement large scale projects. This concentration is excellent preparation for students who want to start a business, work in the public or private sectors, join a not-for profit or pursue graduate education.

Requirements for the Concentration in Strategic Communication (15.000 credits):

MGMT 113	Business Communication	3 cr.
MGMT 211	Management	3 cr.
MGMT 230	Project Management	3 cr.
MGMT 305	Business Ethics	3 cr.
MGMT 413	Strategic Communication	3 cr.

Concentrations in Marketing

Concentrations in marketing are designed for students who plan a career in which marketing plays a pivotal role. The concentrations are designed to provide students with an in-depth understanding of the concepts, tools, and practice of modern marketing. A career in marketing may be developed in different settings outlined in the concentrations, leading to distinct career paths.

Concentration: Marketing Research and Analytics

The concentration in Marketing Research and Analytics equips students to become more engaged with consumers through design, analyses, interpretation and delivery of robust analytical insights that lead to consumer-centered strategic marketing decisions. This concentration produces professionals who are comfortable with numbers and able to make marketing decisions based on qualitative and quantitative data driven analysis. Students are presented with opportunities to engage in hands-on practical experience in planning and implementing marketing research.

This concentration is suitable for students that plan to pursue a career in market research, market analytics and marketing insights. Common career options include: consumer insights managers, market research analysts, marketing database analysts, e-marketing analysts, marketing analysts, social media analysts, and web content analysts.

Requirements for the Concentration in Marketing Research Analytics (15.000 credits):

MRKT 324	Consumer Behavior	3 cr.
MRKT 329	Pricing and Analytics	3 cr.
MRKT 336	Marketing Research Methods	3 cr.
MRKT 435	Marketing Management	3 cr.
MRKT 480	Marketing Practicum (focus on research and analytics)	3 cr.

Concentration: Sales and Business to Business Marketing

The concentration in Sales and Business to Business Marketing equips students to become more engaged with consumers through relationship building and relationship management. This concentration will prepare students to excel in entry-level sales positions and provide the broader framework for future success in upper-level management. In this concentration, students will perform role-playing sales exercises and analyze cases in a realistic business setting. Students gain a firm grounding in the essentials of sales and selling strategies while developing the analytical tools needed to thrive in today's rapidly evolving and competitive business environment.

This concentration is suitable for students that plan to pursue a career in customer relationship management in both business to consumers and business to business areas. Students pursuing this concentration are well prepared for careers, which begin in professional selling and often lead to positions in sales management and marketing. Many of our graduates choose to continue working in professional selling throughout their careers because of the many opportunities which the field offers. Common career options include: sales representatives, sales and service representatives, customer relationship managers, and sales managers.

Requirements for the Concentration in Sales and Business to Business Marketing (15.000 credits):

MRKT 324	Consumer Behavior	3 cr.
MRKT 326	Sales Management	3 cr.
MRKT 330	Business to Business Marketing	3 cr.
MRKT 435	Marketing Management	3 cr.
MRKT 481	Marketing Practicum (focus on sales and business to business)	3 cr.

Concentration: Marketing Communications and Digital Marketing

The concentration in Marketing Communications and Digital Marketing equips students to become more engaged with consumers through effective communications using traditional media and digital platforms. Students learn how to develop integrated marketing communications plans that connect to measurable marketing outcomes. Students collaborate to create persuasive presentations that demonstrate how recommended plans will achieve desired results. This concentration teaches students to conduct media planning and execution across the latest traditional, digital, mobile, and social marketing vehicles. In this concentration, students will undertake hands-on projects and analyze cases in a realistic business setting. Students gain a firm grounding in the essentials of integrated marketing communications strategies while developing the creative and analytical tools needed to thrive in today's rapidly evolving and competitive media environment.

This concentration is suitable for students that plan to pursue a career in strategic marketing communications. Common career options include: marketing communications specialists, marketing communication analysts, account managers, creative marketing communication professionals, marketing promotions specialists, and marketing communications managers.

Requirements for the Concentration in Marketing Communications & Digital Marketing (15.000 credits):

MRKT 324	Consumer Behavior	3 cr.
MRKT 338	Integrated Marketing Communications	3 cr.
MRKT 435	Marketing Management	3 cr.
MRKT 482	Marketing Practicum (focus on marketing communications and digital marketing)	3 cr.
MRKT 327	Digital Marketing	3 cr.

Concentration: Sports and Services Marketing

The concentration in Sports and Services Marketing equips students to become more engaged with consumers through strategic marketing decisions and branding decisions as they pertain to sports, and services. This concentration will prepare students to excel in entry-level positions and provide the broader framework for future success in upper-level management. In this concentration, students will learn how to strategically market and brand teams, venues, athletes, sports events, health services, hospitality services, financial services, and not-for-profit services. Sports and services marketers understand how to leverage the assets of sports and service entities to drive consumer demand, effectively serve consumers, and yield sustainable customer relationships with satisfied customers.

Graduates take positions in both profit and nonprofit organizations and sports teams, leagues and related sectors (media, events, and athletes). This concentration is suitable for students that plan to pursue a marketing career in services and sports areas. Common career options include: event managers, not-for-profit services marketing, for-profit services marketing, sports promotions specialists, event managers, sports media managers, athlete branding, and team branding specialists.

Requirements for the Concentration in Sports and Services Marketing (15.000 credits):

MRKT 324	Consumer Behavior	3 cr.
MRKT 328	Sports Marketing	3 cr.
MRKT 342	Services Marketing	3 cr.
MRKT 435	Marketing Management	3 cr.
MRKT 483	Marketing Practicum (focus on Sports and Services)	3 cr.

Concentration: Business Analytics

Business Analytics (or Analytics for Business) is focused on using statistical and other quantitative analyses of past performance to develop insight on future performance. In the 21st century, it is essential for strategic planning as it forms the basis for data-driven decision making. Analytics are useful in finding relationships in data/processes that have previously not been understood, determining the extent of their significance, and describing how changes to current conditions might impact future performance. Students who pursue this concentration will be equipped with a number of intermediate and advanced quantitative techniques that will allow them to transform messy data into useful information from which smart decisions can be made.

Requirements for the Concentration in Business Analytics (15.000 credits):

QBUS 120	Methods for Decision Making III	3 cr.
QBUS 210	Business Statistics II	3 cr.
QBUS 230	Applied Matrix Algebra	3 cr.
QBUS 320	Time Series Analysis	3 cr.
QBUS 420	Business Intelligence Tools	3 cr.

Business Minor

Requirements for the Minor, Business (18.000 credits):

ACCT 200	Financial Accounting	3 cr.
ACCT 205	Managerial Accounting	3 cr.
FINC 301	Managerial Finance I	3 cr.
MGMT 211	Management	3 cr.
MRKT 212	Marketing	3 cr.
ECON 101	Principles of Economics, Micro	OR
ECON 102	Principles of Economics, Macro	

Students majoring in business may not select the Business Minor.

Students should complete the quantitative reasoning requirement through either QBUS 100, MATH 010, MATH 110 or other equivalent college level coursework.

Those pursuing a B.A. in Economics who want a business minor are required to take an additional School of Business course at the 200 level or above, or FINC-025, from any department except Economics. No course used to fulfill the business minor may be taken pass/fail.

Entrepreneurship Minor: The minor in Entrepreneurship introduces students to the knowledge and skills that are necessary to create, identify, and effectively implement innovative ideas in the marketplace. Consistent with the mission, students will think creatively and critically as they identify opportunities and develop strategies to pursue them. For information on the Entrepreneurship minor requirements, please see the Entrepreneurship minor section under **Multidisciplinary Majors, Minors, Certificates, and Courses**.

Education Certification: School of Business majors seeking initial teaching certification in Business and Marketing (all grades) should plan their program jointly with their advisor and the Education Department at Siena. To be admitted to this certification program, students must have an overall grade point average of 3.0, with a 3.0 grade point average in the major.

School of Business Courses

BUDV—105. Gateway to Business Careers 1 credit

Gateway to Business Careers is an introduction to the various business disciplines and majors, with emphasis on careers and hot topics in business. In particular, students will be introduced to the principles and vocabulary used in the study and practice of economics, management, marketing, accounting and finance. This class provides students with the opportunity to begin to develop some of the foundational skills (communication, critical thinking and problem solving) that are important learning outcomes for the School of Business. Further, it provides students with an introduction to engagement activities (undergraduate research, service, innovation and entrepreneurship) that will help position students for the future. (ATTR: BUS)

BUDV—201. Global Business Environment 3 credits

A survey course designed to introduce students to the cross-cultural and global economic issues that have an impact on doing business. Through projects and case studies, students will explore the impact of cultural and economic differences on how business decisions are made. (ATTR: GLST, ILST, MGEL)

BUDV—420. Global Connection 1-3 credits

An academically oriented study of international business in a region outside the United States, this specially designed course offers credit for an intense two-week study program in a region outside the United States. This travel experience is preceded by orientation lectures and followed by supervised research into one aspect of the field study. Students will tour factories, retail outlets, education institutions, and financial markets. They will meet with business executives, business faculty, and government officials. They will examine issues including how marketing approaches vary among countries, how culture influences the manner in which business is conducted, and how government and trade regulations affect overall economic structure. Travel costs paid by student. Cost varies each semester. Students will be graded on a pass/fail basis. Prerequisite: This course is open to all students who have completed at least two international business courses. (ATTR: BUS, GLST, ILST)

BUDV—440. Visiting Executives Forum 3 credits

Visiting executives will discuss their companies' goals and objectives and how their functional tactics and control methods support their strategies. The course content will integrate the functional areas of business as influenced by global competition and rapid technological change while optimizing the contribution of managers and employees. Open to seniors in the School of Business or by permission of instructor. (ATTR: BUS)

BUDV—450. Organizational Strategy 3 credits

This course deals with the development and implementation of organization strategy. It focuses on the perspectives, analytical techniques, and capabilities utilized by business professionals to improve an organization's probability of attaining sustainable competitive advantage and success in the long term. It is considered a capstone course, which implies that students will be asked to integrate much of what they have learned in other courses into the analytical and decision-making processes. In this course, students will be expected to integrate knowledge and skills from courses in the business core, work effectively in teams, demonstrate leadership skills, communicate effectively, engage in the analysis of complex business situations, and make enlightened decisions based upon reasoned judgments. This is a multidisciplinary course, emphasizing the development of strategies that integrate accounting, financial, economics, and marketing, and management considerations. The course will be taught by professors from a variety of disciplines, but always with an emphasis on multi-disciplinary integration. This course must be taken and completed successfully at Siena. Prerequisites: *Successful completion of all courses in the business core. Students may substitute ATDV—110 for QBUS—200.* Open only to senior School of Business students. (ATTR: BUS)

BUDV—482. Internship in Business 3 credits

Field study experience in subject areas covered by the departments of Accounting, Economics, Finance, and Marketing/ Management. Students will explore career opportunities and field work experience related to their major field of study, working 120 to 150 hours per semester for each 3-credit internship. Students will be graded on a standard grading scale . Students will be required to maintain a field experience journal, attend scheduled classroom seminars, and complete a final report or project. BUDV—482 may be taken twice for a maximum of 6 credits, which do not count toward credits earned in a student's major field of study. Prerequisites: To enroll in an internship, students must have completed a minimum of 45 credits (including at least 12 credits in the Business Core) with a cumulative grade point average of 2.5 or above and receive permission of the School of Business internship coordinator. Students wishing to enroll in a summer internship must have completed a minimum of 75 credits.(ATTR: BUS, INT)

BUDV—499. Independent Study in Business 1 - 3 credits

This course provides an opportunity for seniors with a 3.0 or above to pursue independent study in a business area that does not fit within a single department's guidelines. The permission of a faculty member and the Dean is required. (ATTR: BUS)

BUDV—779. Topics in Intercultural Understanding, Business 4 credits

This course, offered in a foreign country, is an intensive study of specific topics associated with international internships. The nature of the student's research will determine which School will award credit. The course will typically involve a high degree of independent research, oral presentations by the students, and a well-documented writing assignment. Besides the specific research coordinated with an internship, the course will emphasize issues in intercultural communication. A student will earn four credits for this course. (ATTR: BUS)

BUDV—781. International Internship, Business 3 - 8 credits

A student may earn 3-8 credits by serving as an intern in a foreign country. Placements are available for students from each School. The nature of the internship will determine which School will allocate credit. Typical opportunities include work in parliaments, law offices, theatres, museums, non-profit organizations, banking, hospitals and businesses. Students will work from 10 to 32 hrs. a week, depending on the program selected. The internship will involve a sizeable research project linked to the work undertaken. Prerequisites: students must be at least juniors, demonstrate self-motivation, good communication skills and trustworthiness. The GPA requirement is 2.75. (ATTR: BUS, ISP)

Accounting and Business Law Department

Chair: Ms. Elizabeth Marcuccio, Esq. , Prof.

Prof.: Paul F. Dwyer, Jr., Esq., Dr. Leonard E. Stokes, III

Assoc. Prof.: Dr. Chester Brearey, Dr. A. Bruce Caster, Dr. Necip Doganaksoy,

Dr. Margaret Garnsey, Dr. Sunita Goel, Dr. Katherine J. Silvester

Asst. Prof.: Dr. Wanda K. Causseaux Instructor: Mr. Steven Sossei, Ms. Elena Isaacson, Mr. Richard Carlstrom

Visiting Instructor: Mr. Bruce Bonacquist

Professional Specialist in Taxation: Ms. Elaine Phelan

Director of Master of Science in Accounting: Dr. Chester Brearey

The Department of Accounting is committed to academic excellence. Opportunities for practical experiences complement the academic program of the Department and prepare students to succeed in the business world. The Department strives to increase the students' interest in professional accounting matters, help them develop powers of discrimination and judgment, and encourage the pursuit of lifelong learning through continuing professional education.

The student majoring in Accounting is educated in the advanced principles, theories, and real world applications of accounting and taxation. The Department presents its program as a broad and balanced conception, rather than narrow specialization. The Accounting major is prepared for the fields of industrial accounting, government service or not-for-profit accounting, or entrance into graduate accounting programs, including the Siena M.S. in Accounting program, which fulfills a basic requirement for admission to the licensing examinations for Certified Public Accountancy in New York State. Students are also qualified to sit for the professional examinations to become Certified Management Accountants (CMA), Certified Internal Auditors (CIA), and Certified Government Financial Managers (CGFM).

Accounting majors are encouraged to seek as broad an education as possible. Many accounting majors have successfully completed minors in the liberal arts and sciences including Computer Science, International Business, English, History, Political Science, and foreign languages.

Mission Statement: The mission of the accounting department is to prepare students for entry level accounting and business positions, subsequent career growth, and continuing intellectual and professional development. The department provides a challenging and intellectually stimulating learning environment that emphasizes the analytical, communication, technological and teamwork skills necessary to succeed in the current dynamic business environment. The integration of accounting theory and practice with the college's liberal arts and Franciscan traditions enables students to become responsible and contributing members of society.

The Bachelor of Science in Accounting Program and the Accounting Certificate

The B.S. in Accounting Program offers flexibility within the accounting program and with the business electives so that students can tailor their programs to meet a variety of career objectives or preparation for graduate programs. Students should consult with their academic advisors to determine the appropriate degree path to best prepare them for their career and educational goals.

Requirements for the Major, B.S. in Accounting (30.000 credits):

ACCT 200	Financial Accounting*	3 cr.
ACCT 205	Managerial Accounting*	3 cr.
ACCT 300	Intermediate Accounting I	3 cr.
ACCT 305	Intermediate Accounting II	3 cr.
ACCT 340	Taxation I	3 cr.
ACCT 350	Cost Accounting	3 cr.
ACCT 370	Accounting Information Systems	3 cr.
BUDV 450	Organizational Strategy *	3 cr.
Accounting Electives		6 cr.

*Indicates these courses are part of the Common Business Core

Accounting electives and other business electives will be selected after consultation with an academic advisor to determine the best mix of courses to prepare the student for their career and educational goals. Students planning to attend graduate programs in accounting should take BLAW 310 - Commercial Transactions as a business elective and ACCT 430 - Auditing, as an accounting elective.

Auxiliary (3.000 credits)

Any CSIS course 110 or above	3 cr.
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Requirements for the Certificate in Accounting (60.000 credits):

ACCT 200	Financial Accounting	3 cr.
ACCT 205	Managerial Accounting	3 cr.
ACCT 300	Intermediate Accounting I	3 cr.
ACCT 305	Intermediate Accounting II	3 cr.
ACCT 340	Taxation I	3 cr.
ACCT 350	Cost Accounting	3 cr.
ACCT 370	Accounting Information Systems	3 cr.
Accounting Electives		9 cr.

Additionally, Students are required to take:

Business Law	6 cr.
Economics	6 cr.
Finance	6 cr.
QBUS 200 Business Statistics I	4 cr.
Business Electives	9 cr.

Candidates are expected to have computer competence that can be demonstrated through experience or additional coursework in computer science. A minimum of 30 credit hours must be taken at Siena College, achieving an overall grade index of 2.0. At least 15 credit hours of accounting must be taken at Siena (no grade below a C- being acceptable). This program does not grant credit for any required accounting courses that have

previously been taken pass/fail. A student must take courses for a letter grade in order to count them towards the certificate program.

The Accounting Certificate Program is intended for students who do not plan to earn the bachelor's degree or who have already earned a degree in another major. A student who plans to sit for the CPA exam should consult with their advisor regarding education requirements.

The Master of Science Program in Accounting

Dr. Chester Brearey, Associate Professor of Accounting – Director
Mrs. Lori Lasch, Associate Director

Description of Program

The Master of Science in Accounting at Siena prepares students for careers in the public accounting profession. The program is a one year full time program consisting of eight three credit hour required classes and two 3 credit hour electives. The program fulfills the 150 hr. education requirements for certification in New York and other states. The curriculum stresses ethical responsibilities, leadership, critical thinking, as well as quantitative skills. Oral and written communication are emphasized.

Internships

MS candidates have the opportunity to pursue six credit hours of internships available as elective courses. These internships are located at CPA firms, New York State agencies and other businesses. Internships will allow students to become integrated into an organization's operations. Students gain a broader view of the accounting profession and will work approximately 120 hours a semester for each 3 credit hour internship.

Admissions

Generally accounting majors may apply to the program upon completion of the Junior year. Admissions are conducted throughout the year. The graduate admissions committee will inform applicants of their status once a decision is reached.

Prerequisites

Students entering the program must have completed the following courses or their equivalent:

Financial Accounting, Siena ACCT 200	3 cr.
Managerial Accounting, Siena ACCT 205	3 cr.
Intermediate Accounting I, Siena ACCT 300*	3 cr.
Intermediate Accounting II, Siena ACCT 305*	3 cr.
Cost Accounting, Siena ACCT 350*	3 cr.
Taxation I, Siena ACCT 340*	3 cr.
Accounting Systems, Siena ACCT 370*	3 cr.
Business Law including Commercial Code, Siena BLAW 310	3 cr.
Computer Science, Siena CSIS 110 or higher	6 cr.
Finance, Siena FINC 301	3 cr.

To be considered for admission, students must have completed or have in progress, all of the above listed courses.

*Courses require at least a B grade to be considered for admission. If the grade is not at least a B, it may be retaken with permission of the Associate Vice President for Academic Affairs. Applicants with an undergraduate GPA of at least a 3.0 for an accounting degree earned within the preceding five years are not required to submit GMAT scores.

If an applicant possesses a degree from another institution, the degree must have been earned within the last 5 years.

All applicants are required to submit:

- Completed application form
- Official transcripts from all colleges and universities from which credits were earned.
- Official GMAT score results (if required).
- A letter of recommendation written by an accounting faculty member at the bachelor's degree granting institution.

- Current resume, including employment history, certificates or licenses held, volunteer/extracurricular activities, leadership positions and honors/awards
- \$50.00 fee (waived for Siena College applicants)

Transfer Credits

Students desiring graduate transfer credit must present a written request to the Director for transfer evaluation. Transfer credit will be accepted only for those graduate courses with earned grades of at least a “B”. No more than 6 credit hours may be transferred.

Graduate Accounting students at Siena College who wish to take graduate course work at another college or university must have prior written permission from the Director. The college must be AACSB (The Association to Advance Collegiate Schools of Business) accredited.

Academic Standing and Grading

Students must maintain an overall grade point average of at least 3.0 to remain in good standing in the program. A GPA of at least 3.0 is also required for graduation. Students with a cumulative grade point average below 3.0 will be permitted to register for courses only upon recommendation of the Director of the program. A student whose grade falls below the required 3.0 cumulative index will be put on program probation and will be notified in writing. If permitted to continue, the student must raise his/her grade point cumulative average to at least a 3.0 in the next semester of study. Failure to do so will lead to withdrawal from the program.

Grading in the Master program is limited to the following: A (4); A- (3.7); B+ (3.3); B (3.0); B- (2.7); C+ (2.3); C (2.0); F (0.0); I (Incomplete); W (Withdrawal).

The “I” grade is assigned according to Siena College policy at the discretion of the instructor. The incomplete grade “I” is assigned to students who have missed a final examination because of illness or some other serious reason. The students must make up the examination within one month after the close of the term at the convenience of the instructor; otherwise the “I” grade is converted to an F. For GPA purposes, “I” grades are calculated the same as F grades. All “I” grades must be reconciled prior to receipt of a degree. Grades appearing on a student’s academic record at the time of graduation will not be changed to any other grade subsequent to the graduation date.

Requirements for the Master of Science in Accounting Program (30 credits)

GBUS 502	Business and Accounting Ethics	3 cr.
GBUS 520	Financial Operation	3 cr.
GBUS 540	Quantitative Methods for Data Driven Decision Making	3 cr.
MACC 500	Advanced Financial Accounting	3 cr.
MACC 512	Seminar in Accounting Research and Communication	3 cr.
MACC 530	Auditing	3 cr.
MACC 542	Advanced Tax Accounting	3 cr.
MACC 572	Computer Auditing and IT Controls	3 cr.
Electives		6 cr.

For additional information on the program, please contact Chester Brearey in the School of Business Office.

Description of Undergraduate Courses

ACCT – 090. Introductory Topics in Accounting 1-3 credits

This course will be taught with varying subject content in the field of Accounting at an introductory level with no prerequisites. The particular content will be indicated by subtitle. This course is not intended for students within the School of Business and may not be taken for credit by students enrolled in a major offered by the School of Business. School of Arts and School of Science students may take this course for elective credit only. It may be taken more than once with different content. (ATTR:BUS)

ACCT—200. Financial Accounting 3 credits

The first half of the introductory course in accounting emphasizes the role of accounting as an information and communication system necessary for economic decisions. The accounting process, systems and resulting classified financial statements are covered. Financial accounting concepts and practices relating to topics such as current and long term assets, inventories, current liabilities, equity and long term liabilities are included. Prerequisite: MATH—110 or QBUS—100 or equivalent (may be taken concurrently); basic computer spreadsheet competency expected. (ATTR: BUS, ISP)

ACCT—205. Managerial Accounting 3 credits

The second introductory course in accounting focuses on the managerial aspect of accounting. The emphasis is placed on internal uses of accounting information to make managerial decisions. The coverage will include topics such as: cost volume profit analysis, cost behavior, activity based costing, short term decision making, income tax considerations, budgeting, responsibility accounting, performance measurement, and cost control. Lab problems required. Prerequisite: ACCT—200. (ATTR: BUS, ISP)

ACCT - 290. Intermediate Topics in Accounting 1-3 credits

This course will be taught with varying subject content in the field of Accounting at an intermediate level. Prerequisite course may be required. The particular content will be indicated by subtitle. It may be taken more for credit multiple times for different topics. (ATTR:BUS)

ACCT—300. Intermediate Accounting I 3 credits

This course is the first in the two-course sequence in Intermediate Accounting. It provides a comprehensive review of the accounting process, a study of the conceptual basis of accounting, and a review of the preparation and understanding of classified financial statements. The course will focus on the study of contemporary accounting theory and the application of generally accepted accounting principles to various specific topics and financial statement items. Prerequisite: ACCT—200. (ATTR: BUS)

ACCT—305. Intermediate Accounting II 3 credits

Continued study of contemporary accounting theory and the application of generally accepted accounting principles to various financial statement items. Prerequisite: ACCT—300. (ATTR: BUS)

ACCT—340. Taxation I 3 credits

A study of the principles of Federal income taxation primarily focused on taxation of individuals. The course includes an introduction to tax research. Reference will be made to state tax laws and to corporate taxation. Lab problems required. Prerequisite: ACCT—200. (ATTR: BUS)

ACCT—350. Cost Accounting 3 credits

The principles and objectives of cost accounting, production control, and inventory control as they relate to the management decision making and control processes within the firm. Prerequisite: ACCT—205. Lab problems required. (ATTR: BUS)

ACCT—370. Accounting Information Systems 3 credits

An introduction to accounting information systems and their roles in the accounting environment. Systems covered include manual accounting, computerized accounting, and Internet electronic commerce applications. Emphasis is upon developing students' abilities to understand the processing of accounting data and the controls that are necessary to assure accuracy and reliability of the data processed by the accounting system. Prerequisite: ACCT—300. (ATTR: BUS)

Note: Accounting electives, 400 series, may only be offered once per academic year.

ACCT—400. Advanced Accounting 3 credits

Continued study of financial accounting theory and practice in selected areas of accounting such as accounting for partnerships and accounting for complex corporate units and multinational enterprises. Lab problems required. Prerequisite: ACCT—305. (ATTR: BUS)

ACCT—410. Current Accounting Topics 3 credits

Study of specialized accounting topics and issues such as the conceptual framework of accounting, changing price levels, forecast and projections, fiduciary accounting, interim and segment reporting, disclosures, and the standard-setting process. Emphasis is on current pronouncements and the researching of accounting issues. Lab problems required. Prerequisite: ACCT—305. (ATTR: BUS)

ACCT—420. Governmental and Not-For-Profit Accounting 3 credits

An introduction to the accounting principles and practices of government and not-for-profit organizations. The course considers fund accounting principles and the unique financial reporting problems important to entities operating within the non-profit area: state and local government, colleges and universities, hospitals, health and

welfare agencies, churches and other organizations. Lab problems required. Prerequisite: ACCT—305. (ATTR: BUS)

ACCT—430. Auditing 3 credits

The course will emphasize concepts and principles that enable the student to understand the philosophy and environment of auditing and assurance services. It is an overview of the public accounting profession and the Generally Accepted Auditing Standards utilized by the profession in reporting on the financial statements of enterprises. Prerequisites: ACCT—305 and ACCT—370. (ATTR: ACCT, BUS)

ACCT—440. Taxation II 3 credits

This course presents the taxation of corporations and its effects on their shareholders. Special tax provisions related to sub-chapter S corporations and partnerships and various aspects of IRS administration and tax practice are included. New York State taxation of corporations and partnerships will be integrated with the presentation. Prerequisites: ACCT—305 and ACCT—340. (ATTR: BUS)

ACCT—450. Advanced Cost Accounting 3 credits

An in-depth study of the principles and objectives of the techniques and theories used in managerial accounting. Topics such as capital budgeting; variance analysis; cost allocation; management control systems and quantitative techniques for planning and control will be discussed. Lab problems required. Prerequisite: ACCT—300 and ACCT—350. (ATTR: BUS)

ACCT—460. Internal and Performance Auditing 3 credits

This course will examine the common body of knowledge needed by internal auditors. Emphasis is placed on the tools and techniques used to assess the economy, efficiency, effectiveness and results of management activity as they are used in government, not-for-profit agencies and the private sector. Prerequisite: ACCT—305. (ATTR: BUS)

ACCT—462. Fraud and Forensic Accounting 3 credits

The course will discuss what constitutes a fraud, how frauds can be committed, how frauds can be uncovered, and some actions accountants and business executives can take to minimize frauds occurring in their organizations. This course meets the Siena College definition of Franciscan Concern: Diversity by considering matters of race, gender and culture, within the context of the accounting firm being a microcosm of society. This upper level accounting elective is designed as a seminar. Students must have senior status. (ATTR: BUS, CFD)

ACCT—470. Accounting Systems and Data Processing 3 credits

An up-to-date and comprehensive treatment of the aspects of accounting systems building with appropriate emphasis on data for decision making. The interrelationships of the functions of recording, processing, and analysis, using the principles of good systems building, are blended with the manual and automated devices. Laboratory required. Prerequisite: ACCT—300, CSIS—114 can be taken as a prerequisite or concurrently with this course. (ATTR: BUS)

ACCT—472. Computer Auditing and IT Controls 3 credits

The course explores security and control issues from an accounting and auditing perspective related to technology as it impacts business applications. Topics may include security and control related to e-commerce, internet, and computer auditing. Students will be exposed to a variety of business applications through case studies, and projects. Prerequisites: ACCT—300, FINC—301, CSIS—020 or CSIS—114 or equivalent. Students need an understanding of basic accounting and financial concepts, as well as an understanding of the design and application of Information Systems and Data Bases.. (ATTR: BUS)

ACCT—490. Seminar: Topics in Accounting 3 credits

The course is intended to provide opportunities for concentrated study at an advanced level in areas beyond the scope of regular course offerings including topics of current concern and topics specifically identified as meeting specialized interests of students. This course is offered on an irregular basis. It may be taken more than once with different course content. Prerequisites: There are no specific prerequisites. The seminar is an elective open to seniors in accounting. Depending on the topic, specific background might be required, and also it might be cross-listed with other Departments and/or be open to seniors in other majors. Approval of the Instructor is required. (ATTR: BUS)

ACCT—499. Independent Study 1 - 3 credits

A qualified student may pursue a particular project/topic in the field of Accounting in his/her junior or senior year. The project requires the approval of the faculty member involved and the Department Head. A satisfactory

written report and/or examination will determine the final grade. Only one independent project may be undertaken in any academic year. Prerequisites: Junior or Senior status. The student must possess adequate preparation in the field that will be studied as determined by the professor. (ATTR: BUS)

Business Law

Description of Courses

BLAW—200. Legal Environment of Business 3 credits

The course presents the legal concepts governing the conduct of business in the United States from a managerial perspective including contracts, torts, agency and government regulations. The course is designed to equip managers and other business persons with an understanding of the legal process as it applies to managerial and other business problems. As legal rules frequently change, the emphasis will be on developing independent critical thinking skills. (ATTR: BUS, CFJ, REC)

BLAW—310. Commercial Transactions 3 credits

A general survey of the uniform commercial code. Sales: passing of title, risk of loss, financing and security interests, bailments, and carriers. Commercial Paper: negotiation and assignment, holders in due course, defenses, banks, debtor-creditor, and bankruptcy. Property: real and personal, transfers, and financing. Prerequisite: BLAW—200. (ATTR: BUS)

BLAW—490. Seminar: Topics in Business Law or Business Ethics 3 credits

This course is intended to provide opportunities for concentrated study at an advanced level in areas beyond the scope of regular course offerings including topics of current concern and topics specifically identified as meeting specialized interests of students. This course is offered on an irregular basis. It may be taken more than once with different course content. Prerequisites: There are no specific prerequisites. The seminar is an elective open to seniors in business. Depending on the topic, it might also be cross-listed with other Departments and/or be open to seniors in other majors. Depending upon the topic being covered and enrollment the course may be open to juniors. Approval of the Instructor is required. (ATTR: BUS)

Description of Graduate Courses

GBUS—502 Business and Accounting Ethics. 3 credits

The course will involve a critical evaluation of the ethical implications for business and audit decisions. Individual as well as organizational consequences will be explored by examining a variety of cases and real-life situations. Prerequisites: Admission to the Program.

GBUS—520 Financial Operations. 3 credits

The role of the financial manager is examined in context with the legal operating and tax environment of contemporary business firms. Attention is focused on financial analysis and planning, the time value of money, risk-return relationships, cash flow and asset/liability management as well as investment priorities, capital structure, valuation techniques and capital budgeting applications. Special concerns dealing with mergers, restructuring and international finance are also addressed. Prerequisites: Admission to the Program.

GBUS—540 Quantitative Methods for Data Driven Decision Making. 3 Credits

This course is a study of quantitative methods and tools for accountants. Topics will include the following: sampling theory and techniques for auditing, probability theory, regression analysis including multivariate regression, linear programming and Excel as an advanced problem solving tool. Prerequisites: Admission to the Program.

MACC—500 Advanced Financial Accounting. 3 credits

The course will continue the study of financial accounting begun in the undergraduate experience. Students will be expected to apply prior acquired knowledge to the study of organizations such as partnerships and consolidated corporations. Accounting for international entities and transactions will be discussed along with International Accounting standards. The important role of accountants and auditors in creating, disseminating and explaining financial statements and business transactions is an integral aspect of the course. Prerequisites: Admission to the Program.

MACC—512 Seminar in Accounting Research & Communication. 3 credits

This course will discuss current accounting concepts. Topic material will include discussion of financial accounting pronouncements by FASB, or other prominent accounting standard setting groups. Computerized

accounting research tools will be utilized. Students either on an individual or group basis will be expected to pick a topic of interest for which they will conduct further research. Prerequisites: Admission to the Program.

MACC—530 Auditing. 3 Credits

This course covers the role of the auditor, the audit process, the public accounting profession, audit risk and materiality, fraud, audit methods and techniques, audit planning, internal control, the effects of information technology on the audit, auditing revenue, receivables and inventories, professional ethics, legal responsibilities, emerging assurance services and recent developments in the auditing profession. Prerequisites: Concurrent with GBUS—540.

MACC—535 Advanced Auditing. 3 Credits

This course examines auditing concepts and issues in depth. A special focus exists on audit evidence and how auditors make decisions. Some topic areas include ethics, analytical review, fraud and the role of technology. Prerequisites: MACC 530 Auditing or equivalent.

MACC 542 Advanced Tax. 3 Credits

This course provides a more in depth discussion of the taxation of entities other than individuals. Topics include the taxation of Subchapter C or 'regular' corporations and the tax effects of transactions with shareholders: from organization, to operation, to termination or liquidation. Similar tax provisions relating to Subchapter S corporations and partnerships are also covered and compared and contrasted with those of Subchapter C corporations. An introduction to multistate taxation will be made with an emphasis on the taxation of entities in New York State. Coverage of federal gift and estate tax provisions will be incorporated as well. Building on the research skills acquired in the undergraduate taxation course students will research, analyze and communicate conclusions about issues related to the above topics. Prerequisites: Admission to the Program.

MACC 545 Advanced Predictive Analytics for Accounting. 3 Credits

This is an applied course on current technologies used for predictive analytics with an emphasis on applications in accounting and financial auditing. The course is based on case studies that incorporate typical challenges encountered in applications: Large transactional data sets with mixed types of variables (e.g., qualitative and quantitative), missing data, lurking variables, confounded predictors and uncontrolled variation. The emphasis of the course is on effective use of the methods, interpretation of results, and recognition of potential pitfalls in their use. The role of effective data visualization is emphasized throughout the course. Prerequisites: GBUS—540 (may be taken concurrently).

MACC—550 Seminar in Advanced Managerial Accounting. 3 Credits

This course involves the in-depth study of advanced managerial accounting techniques and theories. Topics will include the following: working capital, capital budgeting, CVP analysis, decision making, cost allocation, master budget, variances, responsibility accounting, quality control, benchmarking, strategy, best practices, ethics and other current managerial accounting topics. Prerequisites: Admission to the Program.

MACC—560 Advanced Financial Reporting Issues. 3 Credits

This course will involve the study of current accounting topics of interest to the CPA community. These areas could involve new standards published by FASB, IASB, or the AICPA. The topics will integrate practical and theoretical implications of the issues on global economic issues, business, contemporary society and ethical or moral positions. Prerequisites: Admission to the Program.

MACC—571 Advanced Accounting Information Systems. 3 Credits

This course overviews current information systems concepts. Students will be instructed in the design and implementation of AIS in a database environment. Some topics addressed by the course are expected to change from year to year as new issues, technologies, etc. emerge. Topics that are covered may be drawn from the AICPA's Top Ten Technologies List. Examples of topics include: Computer Crime, XML (eXtensible Markup Language), XBRL (eXtensible Business Reporting Language) and e-commerce issues such as encryption. Prerequisites: Admission to the Program.

MACC—572 Computer Auditing and IT Controls. 3 Credits

This course explores security and control issues from an accounting and auditing perspective related to technology as it impacts business applications. Relevant technology and systems issues will be discussed. Topics may include security and control related to e-commerce, the Internet and computer assisted auditing. Prerequisites: Admission to the Program.

MACC—582 Graduate Internship CPA: Tax, 3 credits

Field work experience in Taxation will explore career opportunities in public accounting firms. Students work 120 hours per semester. Prerequisites: Admission to the Program.

MACC—583 Graduate Internship CPA: Audit, 3 credits

Field work experience in Accounting/Auditing will explore career opportunities in public accounting firms. Students work 120 hours per semester. Prerequisites: Admission to the Program.

MACC—584 Graduate Internship Non-CPA: Accounting/Auditing, 3 credits

Field work experience in Accounting/Auditing will explore career opportunities in corporate and not-for-profit accounting businesses, New York State agencies and local government. Students work 120 hours per semester. Prerequisites: Admission to the Program.

MACC—585 Graduate Internship Non-CPA: Tax, 3 credits

Field work experience in Taxation will explore career opportunities in corporate and not-for-profit accounting businesses, New York State agencies and local government. Students work 120 hours per semester. Prerequisites: Admission to the Program.

MACC—586 Graduate Internship: 3 credits

Field work experience in Accounting/Auditing will explore career opportunities in public accounting firms, corporate and not-for-profit accounting offices and New York State agencies and local government. Students work 120 hours per semester. Prerequisites: Admission to the Program.

Students may earn a maximum of six internship credits.

MACC—590 Graduate Seminar: Topics in Accounting. 3 Credits

The course is intended to provide opportunities for concentrated study at an advanced level in areas beyond the scope of regular course offering including topics of current concern and topics specifically identified as meeting specialized interests of students. This course is offered on an irregular basis. It may be taken more than once with different course content. Approval of the Instructor is required. Prerequisites: Admission to the Program.

MACC—599 Graduate Independent Study in Accounting. 3 Credits

A qualified graduate student may pursue a particular project/topic in the field of Accounting. The project requires the approval of the faculty member involved and the M.S. in Accounting Director. Only one independent project may be undertaken in any academic year. The student must possess adequate preparation in the field that will be studied as determined by the professor. Prerequisites: Admission to the Program.

Economics Department

Chair: Dr. Aaron N. Pacitti, Assoc. Prof.

Prof.: Dr. James F. Booker, Dr. W. Scott Trees

Assoc. Prof.: Dr. Arindam Mandal

Asst. Prof.: Dr. Matthew Davis, Dr. Ashley J. Provencher, , Dr. Elias Shukralla

The Economics Department provides students with an opportunity to study the major economic relationships present in every society. Students will study alternative ways of meeting needs within institutional and resource constraints.

Students who wish to major in economics may choose from two courses of study leading to either a B.S. degree through the School of Business or a B.A. degree through the School of Liberal Arts.

For information on the B.A. degree, please see the economics section **under the School of Liberal Arts**.

The B.S. program is oriented toward the techniques and background appropriate for the business community. It prepares students for immediate employment and for graduate work in Business Administration and related areas. Students will explore both theoretical and quantitative analysis, including work with general software and advanced statistical packages.

Requirement for the Major, B.S. in Economics (30.000 credits):

ECON 101 Principles of Economics, Micro

3 cr.

ECON 102	Principles of Economics, Macro	3 cr.
ECON 201	Micro-Economic Analysis	3 cr.
ECON 202	Macro-Economic Analysis	3 cr.
ECON 430	Econometrics	3 cr.
Economics electives (at least 9 credits at the 300 level or higher)		15 cr.

Economics electives will be selected after consultation with an academic advisor to determine the best mix of courses to prepare the student for their career and educational goals.

Requirements for the Minor, Economics (18.000 credits):

ECON 101	Principles of Economics, Micro	3 cr.
ECON 102	Principles of Economics, Macro	3 cr.
ECON 201	Micro-Economic Analysis	OR
ECON 202	Macro-Economic Analysis	
Three Economics Electives		9 cr.

Please Note: For B.A. and B.S. Economics majors, four Finance courses are cross-listed with Economics and count toward the degree (FINC—212 = ECON—210; FINC—413 = ECON—313; FINC—421 = ECON—420; FINC—422 = ECON—320).

Description of Courses

ECON—101. Principles of Economics, Micro 3 credits

This course introduces students to fundamental economic concepts and theory, including demand, supply, and the formation of equilibrium prices in product and resource markets. In addition, the course offers an introduction to applied fields such as industrial organization (market structures), labor economics, unionism, international trade, and market failure. (ATTR: ARTS or BUS; CAS, ISP, CDS, STVS)

ECON—102. Principles of Economics, Macro 3 credits

This course examines the foundations of economic theory as it relates to unemployment, inflation, and economic growth. Topics might include aggregate demand, aggregate supply, market equilibrium, national income accounting, theories of income determination, money and banking, and fiscal and monetary policies. (ATTR: ARTS or BUS; CAS, ISP, CDS, STVS)

ECON—201. Micro-Economic Analysis 3 credits

An intermediate-level treatment of the theories of consumer behavior and demand, production and cost, the firm and market organization, and factor markets. Microeconomic topics might include price control, pollution, efficiency, equity, taxes, subsidies, and government regulation. Prerequisite: ECON—101 and QBUS—110 or MATH—105 or MATH—110. (ATTR: ARTS or BUS)

ECON—202. Macro-Economic Analysis 3 credits

An intermediate-level examination of Classical and Keynesian models of income determination, post-Keynesian thought and the Monetarist alternative, and the problems of inflation, employment, and growth. Prerequisite: ECON—102. (ATTR: ARTS or BUS)

ECON—210. Money and Banking 3 credits

This course is designed to develop the student's understanding of the structure and function of our banking system and the role of monetary policy in determining economic activity. Topics included are: the nature of money, the term structure of interest rates, the regulation of commercial bank activity, and the macro-monetary models used to predict future economic conditions. Prerequisite: ECON—102. (Same as FINC—212) (ATTR: ARTS or BUS; ISP)

ECON—230. U.S. Economic History 3 credits

The economic development of the United States from early beginnings to present time. A chronological approach is used to study economic aspects of the major problems of each period. Prerequisite: ECON 102. (ATTR: AMSB, ARTS or BUS)

ECON—235. History of Economic Thought 3 credits

A critical examination of the development of the major schools of economic thought from the seventeenth through the early twentieth centuries, with particular attention to mercantilism, classicism, marginalism, socialism, and neo-classicism. This course requires substantial reading, including primary texts. (ATTR: ARTS or BUS)

ECON—240. Environmental Economics 3 credits

An examination of how the natural environment is affected by the economic activities of society, and the physical and biological limitations imposed on the economy by the natural environment. Particular areas examined include the use of non-renewable natural resources, market failures, economic methods for analyzing pollution, cost/benefit analysis, the impact of population growth, and the values implicit in free market economies toward the natural environment. (Same as ENVA—300.) (ATTR: ARTS or BUS)

ECON—255. Comparative Economics 3 credits

A survey of different forms of national capitalist economic organization, e.g. comparisons of the U.S., Germany and Japan with regard to institutional and policy-making differences as they affect the distribution of wealth and income and social welfare. Other topics include comparisons of various socialist economies and formerly socialist economies in Eastern Europe and China, as well as the emerging hybrid forms of economic organization in those societies. Prerequisite: ECON—102 or permission of the instructor. (ATTR: ARTS or BUS; GLST, ILST, ISP)

ECON—290. Economics of Identity 3 credits

This course uses a political economy approach to examine economics and economic policymaking from the perspectives of gender, race and class. Through this course, we challenge dominant narratives of race, class and gender in economy theory and models of economic behavior. We examine how assumptions pertaining to these constructed categories permeate economic theorizing (about the household, the labor market, work, welfare, etc.) and policymaking, systematically reproducing unequal opportunities and outcomes. Prerequisite: ECON—101 or ECON—102 or permission of instructor. (ATTR: ARTS or BUS) (*Previously ECON—337*)

ECON—300. Topics in Economics 3 credits

This course will explore a topic not covered in regular offerings. May be taken more than once with specific content. Consult the fall and spring course schedule for specific topics offered. Prerequisite: ECON—101 and ECON—102. (ATTR: ARTS or BUS)

ECON—310. Financial Crises 3 credits

The course examines the underlying causes for the origins and propagation of the Great Recession of 2007. Though the primary trigger for the recession was the subprime mortgage crisis, but its origin can be traced to lax monetary policies, the “saving glut”, deregulation, securitization, the widespread use of derivatives, and income and wealth polarization. In response to the crisis, various monetary and fiscal policy steps have been taken. The purpose of this course is to develop analytical tools to understand the crises and policies henceforth from mainstream and heterodox perspective. In the process we will focus on understanding how money, the banking system, and the financial markets interact and affect the economy. We will also look at past financial crises in the United States and elsewhere in the world to compare and contrast the Great Recession of 2007. Prerequisites: ECON—202 or ECON—210. (ATTR: ARTS, BUS)

ECON —313. International Finance 3 credits

By expanding the student’s understanding of the financial system to include an international perspective, this course introduces the student to the role of international considerations within the development of corporate policy. The course examines the determination of exchange rates and operation of exchange markets. The application of these ideas will be extended to the firm’s management of foreign exchange exposure, cash management, and capital budgeting. Multinational banking and political risk management will also be studied. Prerequisites: FINC—212 or FINC—215 and FINC—301. (Same as FINC—413) (ATTR: BUS, GLST, ILST, ISP)

ECON—320. Public Economics and Finance 3 credits

Public finance focuses upon the rationale and impact of the government’s collection of revenue and its expenditures. Topics to be covered include the budget system, principles of taxation, tax incidence, the principles of expenditures, the impact of spending on private behavior, as well as the ability of the process to produce appropriate decisions. Prerequisite: ECON—101 and ECON—102. (Same as FINC—422) (ATTR: ARTS or BUS)

ECON—322. Economics of Poverty 3 credits

This course examines the nature and extent of poverty in the United States from an economist's point of view. Special consideration is given to the antipoverty effects of existing and proposed government programs and policies. Competing theories of poverty and alternative approaches to research on poverty are investigated. Prerequisite: ECON—101 and ECON—102. (ATTR: ACOM, ARTS, BUS)

ECON—325. Health Economics 3 credits

Health economics examines the economic forces which shape the delivery of health care services and the public health environment in which we conduct our everyday lives. The course also examines the health impacts and costs of alternative policy choices. Prerequisite: ECON-201. (ATTR: HSMR, ARTS or BUS)

ECON—328. Labor Economics 3 credits

A general survey of the American labor force reveals the changing nature of work, changing labor force participation rates by age and sex, and the growing importance of minority representation. Traditional labor market models of wage determination are supplemented by considerations of institutional constraints, employee benefits, and forms of wage discrimination. Special topics include: types of unemployment, federal manpower programs, and the history of American trade unionism. Prerequisite: ECON—201. (ATTR: ARTS or BUS)

ECON—332. Economics of Crime 3 credits

This course provides an overview of how economists define and measure crime. Students learn to use the economist's tools to examine: the costs of crime and crime prevention to society and the individuals in it; the behavior of criminals and potential criminals; the markets for criminal behavior and the goods and services that are produced in them; organized crime versus disorganized crime; and the public policies aimed at dealing with crime. Theoretical explanations for crime, victimization, patterns of criminal behavior and the dynamics of differential involvement of specific groups in the criminal justice system are explored. Prerequisite: ECON—101 and ECON—102. (ATTR: ARTS, BUS, ACOM, JMN)

ECON 335 - Political Economy 3 credits

Political economy is the study of economic systems, institutions, and outcomes from the perspective of who gains and loses. Conflict over the distribution of these gains and losses, and the use of power to obtain a desired economic outcome will be the focal points of much of our analysis. As such, the methodology used in this course will differ substantially from that used by mainstream economics, which focuses primarily on efficiency and growth and ignores different concepts of economic justice and the role of distribution and power in affecting economic outcomes. To facilitate this approach, this course takes a critical look at American capitalism from contrasting theoretical perspectives, where the interaction of political, social, and cultural forces is brought to bear on economic interactions. This will allow us to develop a broader and more sophisticated perspective on how the American economy actually works, why it doesn't always work, who it works for and against, and why it changes over time. Prerequisite: ECON—202. (ATTR: ARTS or BUS)

ECON—360. Economic Development 3 credits

An analytical approach to the economic problems of the developing countries. The course includes a discussion of the theories of economic growth and development, including domestic and international issues. This material is augmented by the use of empirical studies of the developmental process. Prerequisite: ECON—201 or ECON—202. (ATTR: ARTS or BUS; GLST, ILST, M CCP)

ECON—362. Latin American and Caribbean Economic Development 3 credits

Latin American and Caribbean economic history and development within the context of historical, social and political processes that have shaped the region are covered. Prerequisite: ECON—202. (ATTR: ARTS or BUS, MULT, GLST, ILST, GSIB, GSSS, LASS)

ECON—370. International Trade Theory 3 credits

An examination of bases, advantages and problems of international trade from the perspective of classical, neoclassical and modern theories. Key topics include determinants of the gains from trade, changes in income distribution resulting from trade, the rationale and consequences of commercial policies (e.g. tariffs, quotas and subsidies) and industrial policies designed to enhance the trade competitiveness of trading economies. Emphasis is placed on the consequences of income distribution from trade and, therefore, on questions of equity and efficiency. Prerequisite: ECON—201. (ATTR: ARTS or BUS, GLST, GSIB, ILST, ISP)

ECON—420. Business Financial Forecasting 3 credits

This course explores the nature and causes of fluctuations in aggregate business activity and the technique used to forecast. To gain an understanding of these techniques, and the usefulness of forecasts, students will prepare a forecast and explore its application to firm decision making. Prerequisite: QBUS—200 or MATH—470. (Same as FINC—421) (ATTR: ARTS or BUS)

ECON—430. Econometrics 3 credits

An introduction to the application of statistical techniques to economic problems. This course includes a review of probability theory, mathematical expectation, and theoretical frequency distributions along with considerations of modeling economic phenomena. Ordinary and two-stage least squares regression techniques are utilized for hypothesis testing and economic forecasting. Prerequisites: QBUS—200 or ATDV—110 or MATH—371, and ECON—201 or ECON—202. Alternatively, MATH—470 and ECON—101 and ECON—102. (ATTR: ARTS or BUS)

ECON—450. Economics and the Popular Press 3 credits

This course looks at a number of books written for non-economists, and expects students to critically analyze their economic content. The required books are, with a single exception, chosen by the students enrolled in the class. In addition, students are expected to write and publish newspaper editorials on economic topics of their choosing. This course is very reading intensive, and emphasizes communication skills. Prerequisite: ECON—201 and ECON—202. Permission of Instructor required. (ATTR: ARTS or BUS)

ECON—490. Seminar in Advanced Economic Theory 3 credits

Analysis of selected topics on an advanced level. Topics are drawn from micro and macro-economics. The course is designed to acquaint the student with advanced subjects and original literature. This course may be taken more than once with different content. Prerequisites: ECON—201 and ECON—202. (ATTR: ARTS or BUS)

ECON—499. Independent Study 1 - 3 credits

A qualified student may pursue a particular project/topic in the field of Economics in his/her junior or senior year. The project requires the approval of the faculty member involved and the Department Head. A satisfactory written report and/or examination will determine the final grade. Only one independent project may be undertaken in any academic year. Prerequisites: ECON—201 and ECON—202 and Junior or Senior status. (ATTR: ARTS or BUS)

ECON—790. Washington Semester Economic Policy. Seminar I 4 credits

The Washington Economic Policy Semester provides a seminar which offers a theoretical analysis of contemporary economic problems; presentation of alternative paradigms used to understand economic problems; extensive readings; preparation of papers; and on-site discussions of economic policy decisions. Meetings are generally four to six times per week and may be held at field sites as well as on campus. (See: ATDV—788, 789) (ATTR: ARTS or BUS)

ECON—791. Washington Semester Economic Policy. Seminar II 4 credits

This is a correlated course to the work being carried on in ECON—790. (See: ATDV—788, 789)

ECON—792. Washington Semester Business and Trade Seminar I 4 credits (See: ATDV—788, 789)

ECON—793. Washington Semester Business and Trade Seminar II 4 credits (See: ATDV—788, 789)

Finance Department

Chair: Dr. James Murtagh, Assoc. Prof.

Prof.: Dr. Eric C. Girard, Dr. Linda L. Richardson

Assoc. Prof.: Dr. Richard Proctor, Dr. Fang (Jenny) Zhao

Asst. Prof.: Dr. Eric Ofori, Dr. Shenghui (Robert) Tong

Visiting Asst. Prof.: Dr. Jun Lou

Instructor: Mr. Anthony G. Pondillo

The Department of Finance is dedicated to teaching our students the nature and practice of financial decision making. The curriculum and methods of instruction are designed to develop the student's ability to identify financial problems, analyze their impact, and design solutions which will withstand critical examination. To accomplish this, we provide our students with the educational framework necessary to become well-rounded, ethical, and innovative thinkers. This prepares students for fulfilling and successful careers in finance and provides the necessary academic foundation for graduate studies.

The curriculum and method of instruction expose students to various financial scenarios. Within this context, they are encouraged to use their analytic and creative skills to develop and present strategies that will withstand critical examination. The School of Business internship program gives students the opportunity to enhance the theoretical knowledge they have gained with practical experience and perspectives.

Requirements for the Major, B.S. in Finance (30.000 credits):

FINC 215	Intro to Institutions and Investment	3 cr.
FINC 301	Managerial Finance I*	3 cr.
FINC 302	Managerial Finance II	3 cr.
FINC 315	Adv. Investments: Theory and Practice	3 cr.
FINC 413	International Finance	3 cr.
FINC 418	Case Problems in Financial Management	3 cr.
Finance Electives		12 cr.

*Indicates these courses are part of the Common Business Core

Finance electives will be selected after consultation with an academic advisor to determine the best mix of courses to prepare the student for their career and educational goals.

After matriculating, students must take FINC-302, FINC-315, FINC-413 and FINC-418 at Siena.

Auxiliary (3.000 credits)

ACCT 300	Intermediate Accounting I	OR	
ACCT 340	Taxation I		3 cr.

Description of Courses

FINC—025. Personal Finance 3 credits

Personal Finance is a course for non-business majors, which prepares them to confront the critical financial decisions they will face during their lifetimes. It will provide students with the knowledge to analyze how decisions concerning topics such as money management, tax planning, consumer credit, home financing, insurance, and financial planning, will impact their personal financial goals. In addition, this course also focuses on raising awareness of the adverse impacts personal financial decisions can have on others in society. Topics featured include: environmentally-friendly investments, socially responsible mutual funds, the role of charitable giving and taxes. There is no prerequisite. Open to all non-business majors. (ATTR: BUS, CFJ)

FINC—090. Introductory Topics in Finance 1-3 credits

This course will be taught with varying subject content in the field of Finance at an introductory level with no prerequisites. The particular content will be indicated by subtitle. This course is not intended for students within the School of Business and may not be taken for credit by students enrolled in a major offered by the School of Business. School of Arts and School of Science students may take this course for elective credit only. It may be taken more than once with different content. (ATTR:BUS)

FINC—210. International Financial Statement Analysis 3 credits

This course addresses the general principles of financial reporting, underscoring the critical role of the analysis of financial reports in investment decision making. Emphasis is put on (1) the relationship between each financial statement, (2) the techniques used to analyze them, and (3) particular distortions based on reporting for specific categories of assets and liabilities, alternative financial reporting policies, and differences between a company's reported financial statements and economic reality. All topics covered follow closely the CFA® level 1 Body of Knowledge for financial reporting and analysis. Prerequisite: ACCT—200 (with a C- or better) or instructor's permission. (ATTR: BUS)

FINC—212. Money and Banking 3 credits

This course is designed to develop the student's understanding of the structure and function of our banking system and the role of monetary policy in determining economic activity. Topics included are: the nature of money, the term structure of interest rates, the regulation of commercial bank activity, and the macro-monetary models used to predict future economic conditions. Prerequisite: ECON—102. (Same as ECON—210.) (ATTR: BUS, ISP)

FINC—215. Introduction to Institutions and Investments 3 credits

A survey course designed to help students recognize the interrelationship between human behavior and firm performance in the valuation of stocks and bonds. The central theme of this course will be how and why forces

in the economy (both behavioral and economic) lead to the establishment of stock prices. Through projects and simulations, students will explore the interrelationships between financial institutions, financial policies and stock market valuations. Prerequisites: ECON—101, ECON—102; ACCT—200 (may be taken concurrently). (ATTR: BUS)

FINC—290. Intermediate Topics in Finance 1-3 credits

This course will be taught with varying subject content in the field of Finance at an intermediate level. Prerequisite course may be required. The particular content will be indicated by subtitle. It may be taken more for credit multiple times for different topics. (ATTR:BUS)

FINC—301. Managerial Finance I 3 credits

An introduction to the principles of financial management. This course emphasizes an understanding of the role of finance within the firm. Topics covered include the elements of financial planning, valuation, cost of capital, and capital budgeting under conditions of certainty and risk. Prerequisites: ECON—101, ECON—102, and QBUS—100 or MATH-110, ACCT—205 (may be taken concurrently), or permission. (ATTR: BUS, ISP)

FINC—302. Managerial Finance II 3 credits

This course is a continuation of Managerial Finance I. Topics covered include working capital management, the use of long-term financing and leverage. It will also deal with the special topics of mergers or international finance. Prerequisites: ACCT—205, FINC—301. (ATTR: BUS, ISP)

FINC—315. Advanced Investments: Theory and Practice 3 credits

Through focusing on the development of the Markowitz Procedure, Capital Asset Pricing Model, Arbitrage Pricing and other theories, this course seeks to familiarize students with the theory underlying the practice of Finance. In addition, this course will also familiarize students with the inherent problems associated with these models as well as their strengths. Prerequisites: FINC—215 or MATH—120, and FINC—301, and QBUS—200 or MATH—470. (ATTR: BUS)

FINC—330. Introduction to Financial Planning 3 credits

This course is an introduction to the concepts and profession of personal financial planning. Gain an understanding of the role and responsibilities of a financial planner, along with analytical skills to aid in financial decision-making. Topics include the financial planning process, securities regulation and licensing, CFP Board ethics, the economic environment, the time value of money, and planning for special situations such as a college education, the formation and operation of a closely held business, and disability. It also previews wealth accumulation, tax, retirement, and estate planning techniques. Prerequisites: FINC—301 (may be taken concurrently). (ATTR: BUS)

FINC—340. Insurance and Risk Management 3 credits

A study of the potential economic loss from personal, property and liability risks to which all individuals and organizations are exposed. The methods by which these risks are identified and evaluated will be explored, together with methods for retaining and transferring these risks. Prerequisites: FINC—301 or permission of instructor. (ATTR: BUS)

FINC—341. Life and Health Insurance 3 credits

Modern approaches to its various uses, including investment aspects of life insurance, types of contracts, the beneficiary clause and settlement options. Includes analysis of the life and health insurance contracts, types and organization of companies, investment policy, underwriting and marketing, and rate-making principles and techniques, including reserves and surrender values. Prerequisites: FINC—301, FINC—340. (ATTR: BUS)

FINC—345. Estate Planning 3 credits

An introduction to and examination of estate planning. Wills, trusts, estates, gift taxes and responsibilities of estate administrators will be analyzed. Prerequisite: FINC—301. (ATTR: BUS)

FINC—353. Real Estate Finance and Investment 3 credits

The objective of this course is to familiarize the student with the methods, trends, and policies involved in financing real estate transactions, as well as with the investment features of real estate. It includes topics such as the legal aspects of financing, permanent and construction lending, alternative sources of financing real property, investment analysis, yield on investment, and real estate and income taxes. Prerequisites: FINC—301. (ATTR: BUS)

FINC—413. International Finance 3 credits

By expanding the student's understanding of the financial system to include an international perspective, this course introduces the student to the role of international considerations within the development of corporate policy. The course examines the determination of exchange rates and operation of exchange markets. The application of these ideas will be extended to the firm's management of foreign exchange exposure, cash management, and capital budgeting. Multinational banking and political risk management will also be studied. Prerequisites: FINC—212 or FINC—215 and FINC—301. (Same as ECON—313) (ATTR: BUS, GLST, ILST, ISP)

FINC—418. Case Problems in Financial Management 3 credits

This course consists of selected case studies to be presented in class by student teams. The objective is to encourage the students to develop the ability to identify problems, and through applying the tools of finance, evaluate alternatives and arrive at viable solutions to the problems in each case. Prerequisites: ACCT—300 or ACCT—340 (may be taken concurrently), FINC—302, QBUS—200. Open to senior School of Business students only. (ATTR: BUS)

FINC—421. Business Financial Forecasting 3 credits

This course explores the nature of fluctuations in aggregate business activity and the technique used to forecast. To gain an understanding of these techniques, and the usefulness of forecasts, students will prepare forecasts and explore their application to firm decision making. (Same as ECON—420.) Prerequisite: QBUS—200 or MATH—470. (ATTR: BUS)

FINC—422. Public Economics and Finance 3 credits

Public finance focuses upon the rationale and impact of the government's collection of revenue and its expenditures. Topics to be covered include the budget system, principles of taxation, tax incidence, the principles of expenditures, the impact of spending on private behavior, as well as the ability of the process to produce appropriate decisions. (Same as ECON—320.) Prerequisite: ECON—101 and ECON—102. (ATTR: ARTS or BUS)

FINC—424. Working Capital Management 3 credits

The theory and practice of financial management as applied to working capital accounts will be examined. The course will focus on corporate cash management, the design of collection and disbursement systems and the management of credit and inventory as it relates to the treasury function. The international dimension will be considered throughout the course. Prerequisites: FINC—212 or FINC—215, and FINC—302. (ATTR: BUS)

FINC—425. Advanced Corporate Finance 3 credits

An advanced Finance course designed to outline theories and techniques for effective financial decision-making and for the assessment of the impact of these decisions on performance. Specifically, the course develops tools for effective capital budgeting and financing decision-making, and for firm valuation. Special attention will be paid to developing a comprehensive approach to solving financial problems. Prerequisite: FINC—215, FINC—302 and FINC—315. (ATTR: BUS)

FINC—427. Mergers and Acquisitions 3 credits

This course provides students with a thorough introduction to mergers and acquisitions. Topics include motives for undertaking M&As, takeover and anti-takeover tactics, the valuation of M&As, tax, legal, and accounting issues, and leveraged buyouts. The ethical issues involved, and the managers' potentially conflicting motives in undertaking these transactions, are also examined. Prerequisite: FINC—302 and FINC—315. (ATTR: BUS)

FINC—430. Derivative Securities 3 credits

A study of options, futures, convertibles, warrants, and other innovative derivatives and swap-like securities. Various trading and hedging strategies, option valuation models, and general market structures will also be covered in this course. This course requires oral and written presentations of computer enhanced research projects. Prerequisite: FINC—315. (ATTR: BUS)

FINC—431. Securities Analysis 3 credits

This course is a quantitative approach to security analysis, including the theory of financial statement analysis and valuation of the firm. The course also includes analysis of business and economic conditions, industry analysis, and ratio analysis. An oral and written presentation of computer based research projects is required. Prerequisites: FINC—215, FINC—302, FINC—315. (ATTR: BUS)

FINC—432. Portfolio Management 3 credits

Advanced study in the area of investment management with the emphasis on analysis of modern portfolio theories and advanced investment strategies. This course takes a quantitative approach in the decision-making process and requires an oral and written presentation of computer based research projects. Prerequisite: FINC—315. (ATTR: BUS)

FINC—434/435. Student Managed Fund 3 credits

Student Investment Fund. This course is designed around the management of the Bjorklund fund (Siena's Student Managed fund). Students gain practical investments experience using advanced valuations and research techniques to (1) allocate across equity classes and (2) select securities for the Bjorklund portfolio, subject to the fund's investment policies and guidelines. The course may be repeated one time for full credit. The course is offered each semester during market hours and takes place in the William R. Raub '85 Market Trading Room. Prerequisites: FINC—315 with a B- or better or permission of instructor. (ATTR: BUS)

FINC—436. Fixed Income Securities 3 credits

This course covers the valuation and risk assessment of a wide variety of fixed income securities and fixed income portfolios. Fixed income securities are financial claims including pure discount bonds, coupon bonds such as Treasury notes and corporate bonds, floating rate notes, callable bonds, among many others, issued by public or private entities. Fixed income risk consists of interest rate risk and other risks such as credit risk, illiquidity risk, and the risks stemming from securitization. Students will (1) review CFA® level 1 material inherent to fixed income and (2) explore more advanced concepts such as credit analysis, interest rates forecasting, and bond portfolio management. Prerequisite: FINC—315 (with a C- or better) or permission of instructor. (ATTR: BUS)

FINC—440. Financial Plan Development 3 credits

The purpose of the Financial Plan Development course is to require the financial planning student to demonstrate the ability to integrate and apply his or her knowledge of financial planning topics, as received through the financial planning curriculum. The course provides the opportunity for students to apply the financial planning process to real-life situations, as well as their ability to communicate their planning recommendations to a client. Prerequisite: FINC—330, FINC—345, FINC—346, and ACCT—340 (may be taken concurrently). (ATTR: BUS)

FINC—490. Seminar in Finance 3 credits

This course will consider a specific topic selected for intensive scrutiny and discussion as a foundation for student research projects, critical analyses, or topical reviews. Consult Fall and Spring schedules for specific topics. May be taken more than once with different contents. Prerequisites: FINC—215, 302, 315, or permission of instructor. (ATTR: BUS)

FINC—499. Independent Study 1 - 3 credits

A student may work independently on a topic of special interest. In a research paper prepared under faculty supervision, the student is expected to demonstrate familiarity with the methods and tools basic to his study. Prerequisite: Permission of the Department Head. Independent study may be taken twice for credit. (ATTR: BUS)

Management Department

Chair: Dr. Melinda L. Costello, Prof.

Prof.: Dr. Frederick DeCasperis, Dr. Erik R. Eddy (sabb. F '17),

Dr. Jeffrey A. Mello, Dr. Charles F. Seifert, Dr. Andrea Smith-Hunter

Assoc. Prof: Ms. Deborah L. Kelly, Esq., Assoc. Prof, Dr. Daniel C. Robeson,

Dr. Paul W. Thurston

Asst. Prof.: Dr. Jessica Salmon

Visiting Instructor: Ms. Natasha Adams, Mr. Micah Schrom

The Management Department prepares students to manage resources, make informed decisions, and lead with integrity in a global environment. Through real-world, applied learning experiences, students develop critical competencies that integrate the perspectives of their Franciscan and liberal arts coursework. With this foundation they are well prepared to serve their organizations and society. Students pursue graduate education, or careers in the private and public sectors and not-for-profit organizations.

The Management major and minor allows flexibility dependent on each student's interests. For instance, students interested in entrepreneurship, leadership, or human resources could concentrate their course work in one of those areas.

Requirements for the Major, B.S. in Management (30.000 credits):

MGMT 113	Business Communication	3 cr.
MGMT 211	Management*	3 cr.
MGMT 329	Organizational Behavior	3 cr.
MGMT 300	Operations Management*	3 cr.
MGMT 332	Human Resource Management	3 cr.
MGMT 336	Management Research Methods	3 cr.
Electives#	(at least 3 cr. of which must be a 400-level course)	12 cr.

*Indicates these courses are part of the Common Business Core.

selected from all MGMT electives, and any courses with the MGEL attribute.

Requirements for the Minor, Human Resource Development (18.000 credits):

PSYC 100	General Psychology	3 cr.
PSYC 245, 260, 265 or 365	(in consultation with advisor)	3 cr.
MGMT 211	Management	3 cr.
MGMT 329	Organizational Behavior	3 cr.
MGMT 332	Human Resource Management	3 cr.
MGMT 432	Strategic Human Resource Management (Capstone)	3 cr.

The minor in Human Resource Development is not open to Management majors.

Requirements for the Minor, Management (18.000 credits):

MGMT 113	Business Communication	3 cr.
MGMT 211	Management	3 cr.
MGMT 329	Organizational Behavior	3 cr.
Three electives	(Must be selected from MGMT courses and any courses with the MGEL attribute)	9 cr.

The Minor in Management is not open to Management majors.

Students interested in exploring the international aspects of the major are urged to consult the section of the catalog which describes the International Studies Minor and the International Studies, Foreign Language and Business Program.

Description of Courses

MGMT – 090. Introductory Topics in Management 1-3 credits

This course will be taught with varying subject content in the field of Management at an introductory level with no prerequisites. The particular content will be indicated by subtitle. This course is not intended for students within the School of Business and may not be taken for credit by students enrolled in a major offered by the School of Business. School of Arts and School of Science students may take this course for elective credit only. It may be taken more than once with different content. (ATTR:BUS)

MGMT—113. Business Communication 3 credits

This is a foundation course that encompasses written, oral, and interpersonal communication skills in formal and informal settings. Fundamental communication theories, principles, and practices are studied from an international business perspective. Applications in business writing, oral presentations, and interpersonal skills provide students with important communication skills required in today's global environment. (ATTR: BUS, REC)

MGMT—211. Management 3 credits

This course provides students with a fundamental understanding of how organizations function and the roles managers play within and across organization. This course introduces students to six management competencies: decision making and planning, innovation and entrepreneurship, teamwork and leadership, communication, human resource development, and process and project management. The course facilitates the development of the conceptual knowledge and applied skills students will need to manage an increasingly diverse workforce and to lead with integrity in a changing global environment. As a Franciscan Concern/Diversity course, students will learn how effective management practice requires managers to view the

world from multiple perspectives, so they may affirm individual rights and appreciate individual differences and differences among groups of people. (ATTR: BUS, CFD, ISP, REC)

MGMT—220. Management Consulting 3 credits

This class investigates the concepts of community, social justice, change and development in and through community-based consulting projects with nonprofit organizations. This course examines the role business consulting plays in addressing pressing organizational needs. (ATTR: BUS, ACOM)

MGMT—230. Project Management 3 credits

The student is introduced to the functions and competencies within project management. The course focuses on providing students with a solid understanding of the competencies and phases of managing projects as well as the key challenges that organizations and leaders face in successfully managing projects. Topics include project integration, project scope management, time and cost management, quality management, human resource planning, risk management, communications, change management and procurement management. (ATTR: BUS)

MGMT—290. Intermediate Topics in Management 1-3 credits

This course will be taught with varying subject content in the field of Management at an intermediate level. Prerequisite course may be required. The particular content will be indicated by subtitle. It may be taken more for credit multiple times for different topics. (ATTR: BUS)

MGMT—300. Operations Management 3 credits

A study of the principles and the applications used in operations management. The topics covered include operations strategy, managing for quality, forecasting, project management, supply chain management, and inventory management. Prerequisites: QBUS—100, 110 or MATH—110, QBUS—200 or ATDV—110 or MATH—371. (ATTR: BUS)

MGMT—305. Business Ethics 3 credits

An examination of ethics in business and work. Among the topics to be addressed are: recognizing and analyzing ethical issues in business; promoting ethical behavior in corporations and institutions; the social responsibilities of business; the role of business in a free market economy; ethics in the global economy; the role of the professions in contemporary American society. Prerequisite: Junior standing. (ATTR: BUS)

MGMT—327. Government and Business 3 credits

Problems of business operating in a competitive economic system are confronted with governmental regulation at all levels. Particular attention is paid to federal legislation. Current legislation on consumer protection anti-trust, anti-merger, equal employment, OSHA, and environmental protection is analyzed. Prerequisites: MGMT—211. (ATTR: BUS)

MGMT—329. Organizational Behavior 3 credits

Organizational behavior is an application of the principles of the behavioral sciences to the functions, needs, and role of management. The specific principles that comprise the foundation of organizational behavior have been provided by the theories, methods, and principles of such diverse disciplines as psychology, sociology, industrial engineering, organization theory, and communication systems. Topics covered include: organizational culture, decision making skills, group and intergroup behavior and productivity, nonverbal and interpersonal communication skills, participatory management, organization development (OD) and change, stresses in managerial work life, quality of work life, improving subordinate performance, and developing effective organizations. Prerequisites: MGMT—211. (ATTR: BUS)

MGMT—332. Human Resource Management 3 credits

An interdisciplinary investigation and analysis of theories, principles, and practices of human resources management. The contents encompass: viewing organizations and human resources as inter-related systems; a review of human resources functions and programs; staffing the organization and its various components; human resources training and development; the role and impact of the work environment on employees, management, and the organization; the development and role of employee relations; and kinds and importance of remuneration and security programs. Prerequisite: MGMT—211. (ATTR: BUS, MGMT)

MGMT-334. International Management 3 credits

The student is introduced to the functions of management in international firms and issues related to adapting managerial practice to “local” environments. The course focuses upon the globalization of markets, technologies and business practices and how organizational leaders and managers deal with these changing forces. Topics include managerial planning, communication, leadership, motivation, human resource management and

organizational behavior in an international context. Prerequisite: MGMT-211 (ATT: BUS, GLST, ILST, MGMT, MULT)

MGMT—336. Management Research Methods 3 credits

This course provides students the opportunity to learn the objective process of collecting and analyzing data to aid managerial decision making. Students develop and practice the knowledge and skills necessary to review, apply and conduct organizational research. Major topics include the scientific method, sampling, secondary data gathering, observation and interviews, survey construction and experimental design. Students engage in research projects, conduct and interpret statistical analysis, and communicate their findings. Emphasis will be placed on conducting and using research in an ethical manner. Prerequisites: MGMT—113, MGMT—211, and QBUS—200 or ATDV—110. (ATTR: BUS, INRM)

MGMT—337. Managing Diversity in Organizations 3 credits

An advanced management course that addresses the various perspectives on the increased diversity of the population in today's organizations. The course primarily focuses on issues of race, gender and ethnicity in organizations. However, other factors that contribute to a diverse organizational population such as disability, age discrimination, class and sexual orientation are also analyzed. The course uses a wide variety of techniques to address diversity in organizations, relating these issues to current demographic trends, the global marketplace and geoethnic transformations. This course is open to students with Junior standing or above. (ATTR: BUS)

MGMT—338. Labor Relations 3 credits

A broad treatment of labor-management relations in both the private and public sectors. The course will encompass: the historical development of the labor movement; modern society and industrial relations; management philosophy regarding employee relations and organized labor; labor legislation and its social, economic, and political impact; collective bargaining, its scope and process; contract administration principles and practices; and labor relations issues and trends. Major emphasis will be placed on: the How-to and Experiential activities via projects, case studies, professional and practitioner speakers, and so forth. Prerequisite: MGMT—211. (ATTR: BUS, CFJ)

MGMT—339. Leadership 3 credits

An advanced management course aimed at providing students with in-depth knowledge on the various leadership theories and insight into effective leadership practices. A critical examination of leadership theories and research will be undertaken. Areas of leadership covered include; management versus leadership, trait theories of leadership, behavior theories of leadership, participative leadership and delegation, power and influence, situational leadership, and "modern" theories of leadership. Emphasis will also be placed on providing an opportunity to apply the theories in practical business applications. Prerequisites: MGMT—211 or permission of instructor. (ATTR: BUS, MGMT) (*Previously MGMT—439*)

MGMT—345. Healthcare Management 3 credits

This course examines the management of organizations that deliver healthcare services such as hospitals, nursing homes, multi-specialty clinics and home healthcare agencies. Students will analyze the organization, functions, roles and performance measures for effective planning and decision-making by today's healthcare managers in the context of the U.S. healthcare delivery system and current healthcare delivery programs. Students will examine principles of effective management including organizational design, motivation, leadership, conflict management, teamwork and strategic alliances for dealing with emerging issues in the healthcare industry and relating to the delivery of effective, patient-centered care. Current events and case studies will be used to illustrate how managers use available information and data to improve the quality of organizational decisions and processes to achieve fiscal sustainability. Prerequisite: MGMT—211. (ATTR: BUS)

MGMT—413. Strategic Communication 3 credits

Students will examine the critical role of strategic communication in achieving an organization's objectives, including during times of crisis. Topics will cover a complete range of current communications tools and how to use them in a strategic way. Emphasis will be placed on skills and techniques for developing an integrated approach towards communication and strategy. Students will learn and practice skills that apply to the changing world, including how to manage and communicate during times of organizational change, communicating in times of crisis, managing conflict, communicating to manage and implement large scale projects, and public relations and dealing with the news media, community and other stakeholders. Prerequisite: MGMT—113, MGMT—211 and MGMT - 305 (only MGMT - 305 may be taken concurrently). (ATTR: BUS, MGMT, MGEL)

MGMT—425. Leading Organizational Change 3 credits

An advanced management course designed to provide students with in-depth knowledge of the fundamentals of organizational development and change. Emphasis will be on understanding change, how change impacts both individuals and organizations, how best to “manage” the change process, and the primary individual, group, and organizational level interventions commonly used in organizations to enhance performance. Offered every Spring. Prerequisite: MGMT—329 and MGMT – 336. (ATTR: BUS, INRM)

MGMT—432. Strategic Human Resource Management 3 credits

This course will examine the critical role of human resource management in achieving an organization’s strategic objectives. Emphasis will be placed on techniques for developing a holistic, integrated approach towards the various human resource functions aligned with the organization’s strategy, and comparison and contrast with traditional human resource management models. Offered every Spring. Prerequisites: MGMT—332. (ATTR: BUS, MGMT, MGEL)

MGMT—445. Strategic Leadership 3 credits

This course will examine the critical role of leadership in achieving an organization’s strategic objectives. Emphasis will be placed on application of techniques for developing an integrated approach towards the various leadership functions aligned with the organization’s strategy. Topics will cover a complete range of current leadership tools and how to use them in a strategic way. Emphasis will be placed on skills and techniques for developing an integrated approach towards leadership and strategy. Prerequisites: MGMT—339. (ATTR: BUS, MGEL)

MGMT—490. Seminar: Topics in Management 3 credits

This course is intended to provide opportunities for concentrated study at an advanced level in areas beyond the scope of regular course offerings including topics of current concern and topics specifically identified as meeting specialized interests of students. This course is offered on an irregular basis. It may be taken more than once with different course content. Prerequisite: There are no specific prerequisites. The seminar is an elective, open to seniors in Management. Depending on the topic, it might also be cross-listed with other Departments and/or open to seniors in other majors. In all cases, approval of the Instructor is required. (ATTR: BUS)

MGMT—499. Independent Study 1 - 3 credits

A qualified student, with the consent of the Head of the Management Department, the Dean of the School of Business, and a participating faculty member of the department, may pursue further research and study on a particular topic in Management. The student will be directed by the participating faculty member. The number of credits to be awarded (1 to 3) will be submitted to the department head for approval by the participating faculty member. The student will meet with the faculty member for periodic discussion. The student will also submit a satisfactory written report to the faculty member concerned. The student will be expected to comply with all School of Business guidelines concerning such projects. Independent study may be taken twice for credit. (ATTR: BUS)

**** Offered when there is sufficient student interest.*

Marketing Department

Chair: Dr. Phuong (Adam) Nguyen, Assoc. Prof.

Prof.: Dr. Cheryl L. Buff

Assoc. Prof: Mr. Gilbert M. Brookins, Dr. Michael S. Pepe

Asst. Prof.: Dr. Jie Sun, Dr. Soyoung Joo

Marketing is concerned with determining, creating, communicating, and delivering a value proposition that meets the needs of an organization’s customers. Siena’s Marketing curriculum provides students with the knowledge and skills necessary to identify marketing opportunities and develop appropriate marketing strategies to profitably pursue those opportunities while remaining responsive and accountable to all stakeholders in the marketplace. Courses expose students to major concepts, skills, and tools that educate students for the theory and practice of modern marketing as well as undergird student preparation for graduate programs in business.

Marketing majors receive cutting edge marketing education from a faculty committed to learning centered pedagogy with a mix of lectures, readings, discussions, case studies, and computer simulations. This mix of teaching methods assures a healthy respect for learning styles of contemporary students without compromising on a balance between the theory and practice of marketing. Courses provide opportunities for students and teachers to interact closely in applying knowledge and skills in solving theoretical problems and application of

theory to real-world problems. Students acquire knowledge, clarify attitudes and values, and develop communication, interpersonal, and analytic skills that lead to critical thinking and complex reasoning in making enlightened decisions.

The Marketing major is appropriate for students planning careers in marketing and allied areas. This major is particularly suited for careers in industries such as packaged goods, services, sports marketing, international marketing, e-commerce, business marketing, advertising, public relations, consulting, retailing, sales and relationship management, and marketing research.

Requirements for the Major, B.S. in Marketing (30.000 credits):

MGMT 211	Management *	3 cr.
MRKT 212	Marketing*	3 cr.
MRKT 324	Consumer Behavior	3 cr.
MRKT 334	International Marketing	3 cr.
MRKT 336	Marketing Research Methods	3 cr.
MRKT 435	Marketing Management	3 cr.
BUDV 450	Organizational Strategy*	3 cr.
MRKT Electives		9 cr.

Requirements for the Minor, Marketing (18.000 credits):

MRKT 212	Marketing*	3 cr.
MRKT 324	Consumer Behavior	3 cr.
MRKT 334	International Marketing	3 cr.
MRKT Electives		9 cr.

*Indicates these courses are part of the Common Business Core

Students can only enroll in MRKT courses if they have achieved a minimum grade of C- in prerequisite courses.

Students interested in exploring the international aspects of the major are urged to consult the section of the catalog which describes the International Studies Minor and the International Studies, Foreign Language and Business Program.

The Minor in Marketing is only available to non-business students.

Description of Courses

MRKT—010. Gateway to Marketing 1 credit

Gateway to Marketing is an introduction to the marketing major with emphasis on careers and hot topics in marketing. This class provides students with the opportunity to begin to develop the fundamental skills (teamwork, leadership, and critical thinking) that are important learning outcomes for the major and the School of Business. Further, it provides students with an introduction to engagement activities (undergraduate research, service, innovation and entrepreneurship) that will help position students for the future. (ATTR: BUS)

MRKT—090. Introductory Topics in Marketing 1-3 credits

This course will be taught with varying subject content in the field of Marketing at an introductory level with no prerequisites. The particular content will be indicated by subtitle. This course is not intended for students within the School of Business and may not be taken for credit by students enrolled in a major offered by the School of Business. School of Arts and School of Science students may take this course for elective credit only. It may be taken more than once with different content. (ATTR:BUS)

MRKT—212. Marketing 3 credits

A foundation course that introduces the student to an understanding of both the consumer and business marketplaces. The strategies necessary to market goods and services in a domestic and global environment are discussed from the perspective of a variety of organizational structures. This is accomplished through an analysis of external and internal factors that impact the organization, and through the development of an understanding of the strategy components collectively referred to as the marketing mix. (ATTR: BUS, FILM, ISP, REC)

MRKT—290. Intermediate Topics in Marketing 1-3 credits

This course will be taught with varying subject content in the field of Marketing at an intermediate level. Prerequisite course may be required. The particular content will be indicated by subtitle. It may be taken more for credit multiple times for different topics. (ATTR:BUS)

MRKT—321. Supply Chain and Logistics Management 3 credits

Supply Chain Management is a system approach in managing the entire flow of information, materials, and services from raw material suppliers through supply chain entities to the end customer. Emphasis is placed on supply chain challenges related to providing logistical support for procurement, manufacturing and marketing-distribution. The course will focus on supply chain strategy, logistics information systems, segmental positioning, order management and fulfillment, inventory, forecasting and collaborative planning. In addition, the course will focus on more operational issues related to transportation, third party logistics, warehousing, materials handling, international logistics, and facility network design. Prerequisites: MRKT—212 and QBUS—200. (ATTR: BUS)

MRKT—323. Retailing 3 credits

A systematic and comprehensive coverage of the elements necessary for successful retail store management. These elements include types of retail institutions, and merchandise management: planning and control, pricing, purchasing, location, layout, display, promotion, store organization, and staffing. Prerequisite: MRKT—212. (ATTR: BUS)

MRKT—324. Consumer Behavior 3 credits

An advanced marketing course designed to provide students with in-depth knowledge of the fundamentals of consumer behavior, with emphasis on the consumer in the marketplace, consumers as individuals, consumers as decision makers, and consumers as influenced by culture and subculture. A critical examination of consumer behavior theories and research will be undertaken. Further emphasis will be placed on understanding the application of consumer behavior concepts in a competitive, dynamic, and global business environment. Prerequisites: MRKT—212 or permission of the instructor. (ATTR: BUS, MRKT)

MRKT—325. Advertising 3 credits

Advertising's role in the marketing mix is related to local, regional, and national sales efforts. Selection of media including television, radio, newspapers, magazines, outdoor, direct mail, as well as specialized local media is covered. Students create television storyboards, radio commercials, and print-media copy and layout. Elements of advertising campaigns are explored through student advertising agencies established to handle real-world advertising assignments. Course includes budgeting, advertising effectiveness studies, sales promotion, and public relations. Prerequisite: MRKT—212. (ATTR: BUS)

MRKT—326. Sales Management 3 credits

This course aims to accomplish four main objectives: [1] To delineate the areas in which sales executives make decisions; [2] To analyze and evaluate sales management decision making criteria and processes; [3] To engage students in a presentation designed to relate the text materials to sales management situations; [4] In addition to the above, students will be introduced to an overview of basic principles of selling. Prerequisite: MRKT—212. (ATTR: BUS)

MRKT—327. Digital Marketing 3 credits

This course will examine the evolution of electronic commerce from a global strategic marketing perspective. Specific emphasis will be placed on the investigation of a complex general purpose technology framework in the context of the unique characteristics of both business to consumer and business to business markets. The corresponding impacts on the elements of the marketing mix will be examined through an application and analysis of the specific electronic marketing activities which have emerged from the technologies of digitization, networking and individualization. Prerequisite: MRKT - 212. (ATTR: BUS)

MRKT—328. Sports Marketing 3 credits

This course will examine the complex and diverse nature of sports marketing from a strategic marketing perspective. Specific emphasis will be placed on the contingency framework for strategic sports marketing, with attention to market selection, marketing mix decisions, and the implementation and control of the strategic sports marketing process. Additionally the course will examine marketing through sports; using sports as a platform for developing strategies and tactics to sell nonsports products. Prerequisite: MRKT—212. (ATTR: BUS MRKT)

MRKT—329. Pricing Strategy and Marketing Analytics 3 credits

An advanced marketing course designed to focus on the practical needs of the marketing manager when making marketing decisions regarding price and quantitative analysis of data. The course will encompass two major components: (1) A comprehensive and practical focus to pricing analysis and strategy development to manage markets strategically in order to improve the competitiveness and profitability of offers for organizations. (2) A focus on developing and utilizing quantitative marketing decision models to plan, implement, and analyze marketing strategies and tactics. Students will learn how to analyze data when making strategic and tactical marketing decisions, skills that are increasing in demand in corporations and nonprofit organizations today. Prerequisites MRKT-212 and QBUS-200. (ATTR: BUS)

MRKT—330. Business to Business Marketing and Purchasing 3 credits

This course focuses on the development of marketing strategies targeted at organizations, including businesses, institutions, not-for-profit organizations, and governmental agencies. The focus will be on identifying the unique differences between organizational and consumer buying behavior, with an assessment of the impact on strategy decisions. The course will also address principles, techniques, and strategies that are utilized by purchasing and materials management professionals in the organization procurement process. Prerequisite: MRKT—212. (ATTR: BUS, MRKT)

MRKT—332. New Product Development 3 credits

This course focuses on marketing entrepreneurship and innovation of new product development and brand management throughout the product life cycle. The first part of the course studies the new product/service development and testing to market introduction for new or established organizations. Attention is devoted to creating an environment conducive to innovation, reorganizing business opportunities, and assessing the market, customer, and competitive situations throughout the product life cycle. The second aspect of the course relates to branding and brand management, including the tasks of positioning, brand personality and equity, and alternate branding strategies. The course facilitates the development of the conceptual knowledge and applied skills students will need in order to meet the needs of a diverse global market across all socio- economic groups. Prerequisites: MRKT—212 or ENTR—210. Same as ENTR—332. (ATTR: BUS, CFD)

MRKT—334. International Marketing 3 credits

The student is introduced to a systematic treatment of global marketing. The emphasis is on the problems and opportunities available to exporters of U.S. products and services, as well as organizations with multinational or global operations. Attention is devoted to cultural, social, and economic factors that affect marketing on a global scale. Suggested for students enrolled in International Studies, Foreign Languages and Business Program. Prerequisites: MRKT—212. (ATTR: BUS, GLST, ILST, M CCP, MRKT, MULT)

MRKT—336. Marketing Research Methods 3 credits

Research is the objective process of collecting and analyzing data in order to aid in the marketing and managerial decision making process. Major topics include survey and sampling methodologies, questionnaire construction, observation and experimental methodology, plus secondary data gathering. Students engage in research projects, and interpret statistical analysis of output from a computer statistical package. Prerequisites: MRKT—212, QBUS—200 or ATDV—110. (ATTR: BUS, INRM)

MRKT—338. Integrated Marketing Communications 3 credits

This course focuses on the latest marketing communication practices, known as integrated marketing communications (IMC), featuring an overview of the major media, including broadcast, print, outdoor, point of purchase, direct mail, Internet, telemarketing, public relations, promotion, and more. The emphasis is on how to analyze and create an IMC program by using the latest value-based marketing concepts and measuring “return on communications investment.” Through individual analysis and discussion of case studies, students learn how to apply core marketing principles by using the latest IMC methods and communication tools. Prerequisite: MRKT—212. (ATTR: BUS, FILM)

MRKT—340. Strategic Brand Management 3 credits

This course focuses on brand management throughout the life of a product. Students will learn how to build, measure, and manage brand equity. Emphasis will be placed on brands and brand management, developing a brand strategy, implementing a brand marketing program, measuring a brand's performance, and growing/sustaining brand equity. Additional emphasis will be placed on the tasks of positioning, brand personality, and alternative branding strategies. The course facilitates the development of the conceptual knowledge and applied skills students will need in order to develop and manage product brands to meet the needs of a diverse market across all socioeconomic groups. Cases, individual and group leading projects will be used to provide students an experiential format for learning. Prerequisites: MRKT—212. (ATTR: BUS)

MRKT—342. Services Marketing 3 credits

This course is designed for those students who may be interested in working in service industries and in addressing the distinct needs and challenges of managing services and delivering quality service to customers. The course will build and expand on ideas from Marketing 212, as well as other Marketing courses to make them specifically applicable to service industry settings. Focus will be on the variety of service providers including banking, hospitality, transportation, health care, entertainment, education, insurance and real estate, and other professional services. The customer service function in traditional production-based organizations will also be included. Prerequisites: MRKT—212. (ATTR: BUS, MRKT)

MRKT—435. Marketing Management 3 credits

An advanced marketing course which utilizes a universal, analytical approach to solving marketing problems at the executive marketing and managerial level. The course draws heavily from materials found in marketing principles, economics, mathematics, and the behavioral sciences, presented to the student in a textual format. Each student will participate in the analysis of case studies to gain experience and skill in the strategy decision-making process. Prerequisites: MRKT—212, MRKT—324, , and QBUS—200 or ATDV—110 and Senior status. (ATTR: BUS, MRKT)

*****MRKT—437. Applied Research Methods 3 credits**

Research is increasingly utilized by managers. Students will benefit from a better understanding of exactly how research is conducted by participating in a genuine, professional research project. This project focuses on defining the problem, designing the appropriate methods and strategies for gathering data, analyzing and interpreting the data, and reporting the findings to the particular client. Practical knowledge of a statistical software package is an integral part of the course. Prerequisites: MRKT—336; QBUS—200; CSIS—010 or equivalent. (ATTR: BUS, INRM)

MRKT—480. Practicum in Marketing: Concentration in Marketing Research and Analytics 3 credits

This Practicum will involve an internship or experiential learning experience in Marketing with an emphasis on the concentration sought by the student. Students will explore research experience, career opportunities, and fieldwork experience related to Marketing with a specialized emphasis on their chosen concentration. Prerequisites: MRKT—324, MRKT—329, and MRKT—336. (ATTR: BUS)

MRKT—481. Practicum in Marketing: Concentration in Sales and Business to Business Marketing 3 credits

This Practicum will involve an internship or experiential learning experience in Marketing with an emphasis on the concentration sought by the student. Students will explore research experience, career opportunities, and fieldwork experience related to Marketing with a specialized emphasis on their chosen concentration. Prerequisites: MRKT—324, MRKT—326, and MRKT—330. (ATTR: BUS)

MRKT—482. Practicum in Marketing: Concentration in MRKT Communications & Digital Marketing 3 credits

This Practicum will involve an internship or experiential learning experience in Marketing with an emphasis on the concentration sought by the student. Students will explore research experience, career opportunities, and fieldwork experience related to Marketing with a specialized emphasis on their chosen concentration. Prerequisites: MRKT—324, MRKT—338, and MRKT—327. (ATTR: BUS)

MRKT—483. Practicum in Marketing: Concentration in Sports and Services Marketing 3 credits

This Practicum will involve an internship or experiential learning experience in Marketing with an emphasis on the concentration sought by the student. Students will explore research experience, career opportunities, and fieldwork experience related to Marketing with a specialized emphasis on their chosen concentration. Prerequisites: MRKT—324, MRKT—328, and MRKT—342. (ATTR: BUS)

MRKT—490. Seminar: Topics in Marketing 3 credits

This course is intended to provide opportunities for concentrated study at an advanced level in areas beyond the scope of regular course offerings including topics of current concern and topics specifically identified as meeting specialized interests of students. This course is offered on an irregular basis. It may be taken more than once with different course content. Prerequisite: There are no specific prerequisites. The seminar is an elective, open to seniors in Marketing. Depending on the topic, it might also be cross-listed with other Departments and/or open to seniors in other majors. In all cases, approval of the Instructor is required. (ATTR: BUS)

MRKT—499. Independent Study 1 - 3 credits

A qualified student, with the consent of the Head of the Marketing Department, the Dean of the School of Business, and a participating faculty member of the department, may pursue further research and study on a

particular topic in Marketing. The student will be directed by the participating faculty member. The number of credits to be awarded (1 to 3) will be submitted to the department head for approval by the participating faculty member. The student will meet with the faculty member for periodic discussion. The student will also submit a satisfactory written report to the faculty member concerned. The student will be expected to comply with all School of Business guidelines concerning such projects. Independent study may be taken twice for credit. (ATTR: BUS)

**** Offered when there is sufficient student interest.*

Quantitative Business Analysis Department

Chair: Dr. Joseph P. McCollum , Assoc. Prof.

Prof.: Dr. Douglas A. Lonnstrom, Dr. James R. Nolan

Assoc. Prof.: Mr. Gary B. Franko, Dr. John O'Neill, Ms. Carol P. Venezio

Asst. Prof.: Dr. James P. Burnes (sabb. Sp. '18), Mr. Shahryar Gheibi, Dr. Manimoy Paul

Visiting Instructor: William Adamczak

This department provides students with the analytical tools necessary for making better management decisions. In order to appraise and evaluate quantitative information, every student is introduced to several mathematical techniques that can be applied to business situations. This is followed by a comprehensive treatment of analytical processes for decision making. These introductory courses in applied mathematics cover the techniques of problem formulation and solution.

Subsequent courses emphasize the application of additional mathematical concepts and analyses useful for decision making in businesses, government agencies, and other organizations. A broad range of analytical skills are covered by these additional courses.

Description of Courses

QBUS—090. Introductory Topics in Quantitative Business 1-3 credits

This course will be taught with varying subject content in the field of Quantitative Business at an introductory level with no prerequisites. The particular content will be indicated by subtitle. This course is not intended for students within the School of Business and may not be taken for credit by students enrolled in a major offered by the School of Business. School of Arts and School of Science students may take this course for elective credit only. It may be taken more than once with different content. (ATTR:BUS)

QBUS—100. Mathematics for Decision Making I 3 credits

Mathematical techniques applied to business situations. The topics include mathematics of finance, linear equations and functions, graphs of functions, systems of linear equations, inequalities, linear programming, and non-linear models. This course should be the first course taken in quantitative business. A graphics calculator is required; the TI-83 or TI-84 calculator is recommended. Prerequisites: none. (ATTR: ARTS, CAQ, CDQ)

QBUS—110. Mathematics for Decision Making II 3 credits

This course completes the coverage of mathematical techniques for business situations, introducing additional mathematical techniques including applied calculus. The topics covered include nonlinear models, derivatives, graphing and optimization with derivatives, and integration. A graphics calculator is required; the TI-83 or TI-84 calculator is recommended. Prerequisite: QBUS—100. (ATTR: ARTS, CAQ)

QBUS—120. Mathematics for Decision Making III 3 credits

An introductory course discussing (multivariable) calculus, basic probability, and decision theory with a focus on business applications. Topics include several variable function theory, partial differentiation, optimization problems and LaGrange multipliers, Taylor polynomials, infinite series. Basic probability and its application to payoffs and losses, utility, decision trees and sensitivity analysis, Bayesian analysis, inference and decision making. Prerequisite: QBUS—110 or MATH—110. (ATTR: ARTS)

QBUS—200. Business Statistics I 4 credits

An introductory course in business statistics covering the topics of descriptive statistics, discrete probability distributions, the normal distribution, sampling distributions, estimation, hypothesis testing, statistical quality control, simple linear regression and correlation. A statistical software package is used. Prerequisites: QBUS—110 or MATH—110, demonstrated facility with computerized spreadsheet applications. Not open to students who have taken ATDV—110. Counts as a liberal arts and science course for students entering Fall 2011 or later. (ATTR: ARTS, CFN, INRM)

***QBUS—210. Business Statistics II 3 credits

A study of applied statistical methodology using the R program. Topics from among the following will be covered: experimental design and analysis of variance, multiple regression, and nonparametric statistical methods. Prerequisite: QBUS—200 or permission of instructor. (ATTR: BUS, INRM)

QBUS—250. Applied Matrix Algebra 3 credits

Matrix Algebra has a wide application of uses in various business disciplines through applications of classical linear algebra techniques. The techniques demonstrated in this course will assist students in solving problems including multidimensional linear programming, assignment problems, Markov chains and stochastic processes, Leontif Economic Models and Cryptography. Calculations will be assisted via the use of R. Prerequisites: QBUS—110 and QBUS—120 or MATH—110 and MATH—120. (ATTR: ARTS)

QBUS - 290. Intermediate Topics in Quantitative Business 1-3 credits

This course will be taught with varying subject content in the field of Quantitative Business at an intermediate level. Prerequisite course may be required. The particular content will be indicated by subtitle. It may be taken more for credit multiple times for different topics. (ATTR:BUS)

QBUS—320. Time Series Analysis 3 credits

Time series data occur when describing trends or when tracking internal organizational practices which may have internal structures such as autocorrelation, seasonal variation, and cyclical trends. Techniques for exploring this type of data include regression, autoregressive modeling, random walks, smoothing and decomposition on time series, and qualitative techniques. Prerequisites: QBUS—210. (ATTR: BUS)

QBUS—480. Mathematics of Finance 3 credits

This course builds on the knowledge base contained in previous courses taken by actuarial students. The goal is to reinforce understanding of the fundamental concepts of financial mathematics, and how those concepts are applied in calculating present and accumulated values for various streams of cash flows as a basis for future use. Students will review basic financial instruments and expand their knowledge base to more modern financial analysis using yield curves, spot rates and immunization. Finally students will be introduced to the concept of risk management and understand how principles such as derivatives, forwards, futures, short and long positions, call and put options, spreads, collars, hedging, arbitrage, and swaps affect a firm's risk. (Same as MATH—480). Prerequisite: FINC—301, FINC—315 and MATH—120, or permission of instructor. (ATTR: ARTS, BUS, MHUL)

QBUS—420. Business Intelligence Tools 3 credits

The course will give hands-on experience using Business Intelligence tools (Tableau and Excel). Successful businesses typically collect, analyze and utilize information more effectively than their competitors. Emerging technology can capture large volumes of data which can overpower current evaluative methods, interfering with a business' ability to analyze and utilize new information. These challenges are addressed in this course so that learners can become more intelligent information users in their chosen field. Prerequisites: QBUS—320. (ATTR: BUS)

QBUS—495. Independent Study 1 - 3 credits

A qualified student may pursue a particular topic/project in the field of Quantitative Business Analysis in his/her junior or senior year. The project requires the approval of the faculty member involved, the Department Head and the School of Business Dean. The number of credits to be awarded (1 to 3) will be determined by the Department Head. A satisfactory written report will determine the final grade. Independent Study may be taken twice for credit. Prerequisites: QBUS—100, 110 or MATH—110, 120; QBUS—200 or ATDV—110, or MATH—270; and one course from QBUS—210, MGMT—300; junior or senior status; permission of Department Head and School of Business Dean. (ATTR: BUS)

School of Science

Dr. John P. Cummings, Dean
Dr. Jean C. Mangun, Associate Dean
Ms. Angela L. McKeever, Assistant Dean
Dr. Kristopher Kolonko, Director of Instrumentation

School of Science Courses

SCDV—001. Topics in Science 0-3 credits

This course will be taught with varying subject content. It deals with topics that cross normal departmental boundaries. The particular content will be indicated by subtitle. School of Science students may take this course for elective credit only. It may be taken more than once with different content. (ATTR: ARTS)

***SCDV—002. Women in Science: Struggles and Strategies 3 credits

The lives and work of women scientists in the fields of physics, astronomy, chemistry, mathematics, and biology will be examined. Both biographies and scientific studies will be utilized to study the ways in which gender has affected career choices, education, patterns of scientific work, and the recognition of achievement. The course will emphasize discussion of assigned readings as well as research and writing. Prerequisite: Junior standing. This course does not satisfy the mathematics/science core requirement. (ATTR: ARTS)

SCDV—010. Discovery Science 3 credits

An interdisciplinary course in the sciences, taught through lecture and laboratory, with the emphasis on learning by discovery. Topics covered include the nature of energy and matter, processes of change in the universe, and the evolution of life. No Prerequisites. Lab Fee. (ATTR: ARTS)

SCDV—020. Introduction to Engineering 1 credit

This course provides a broad overview to the profession of engineering, including its subdisciplines, and an introduction to the opportunities that exist for pursuing engineering during and after Siena. We will use a combination of hands-on activities, readings, videos, and visits from professional engineers to learn about the skills valued by engineers, including: making reasonable, justifiable approximations; designing and prototyping; working effectively in groups and teams; and communicating your work effectively both orally and through clear writing. (ATTR: ARTS)

SCDV—100. In the Realm of the Physical Sciences 3 credits

An intensive exploration of some of the fundamental laws of the universe and their application to various systems. Topics will be selected from major paradigm shifts such as the Copernican revolution and the development of quantum mechanics as well as ideas from areas such as relativity, cosmology, the origin of life, plate tectonics/seismology, dating techniques in archaeology, and the circulation of the atmosphere. PHYS—100 satisfies the Natural World core requirement. Requires permission of the Honors Program Director. (ATTR: ARTS, CAN, HNRS)

SCDV—110. Introduction to Exploratory Data Analysis and Visualization 0-2 credits

Data Science is concerned with gathering, analyzing and visualizing large collections of information in order to extract actionable knowledge, i.e. to make decisions. This course is a basic introduction to the subject. Students will learn to identify data problems and to gather and analyze data using an appropriate computer programming language for data analysis. No previous programming experience is necessary (ATTR: ARTS)

SCDV—120. Laboratory Safety Seminar I 3 credits

An interactive hybrid-online course, which serves to introduce topics in laboratory safety. Seminar discussions will require students to apply knowledge (based on required reading) to address a laboratory safety incident or laboratory situation connected to real world cases. Coursework will emphasize critical thinking, hazard identification, problem solving and regulatory compliance. A student presentation and/or project about a laboratory safety topic will be due at the end of the semester. This seminar will cover a broad range of introductory laboratory safety topics such as hazard analysis and risk assessment, hazard control, hazard communication, biosafety awareness, radiation safety awareness, chemical hazards and hygiene, flammability and fire safety, electrical safety, waste handling, regulations, laboratory security and emergency planning. Current events in laboratory safety will be presented throughout the course. (ATTR: ARTS, CFN)

SCDV—210. Human Anatomy and Physiology I (3 hours lecture, 3 hours laboratory) 4 credits
Lecture and accompanying lab focused on the structure and function of the human body. Emphasis will be on organization of the human body, musculo-skeletal, and nervous systems. Designed for Allied Health students. Required course for Dual Degree Nursing Program majors and Health Studies majors in the Health Science Track. Course may not be used to fulfill requirements for the Biology major or minor. Prerequisite: BIOL-110 and 120; OR BIOL-110 and 140; OR BIOL-170 and 180. Lab fee. (ATTR: ARTS)

SCDV—211. Human Anatomy and Physiology II (3 hours lecture, 3 hours laboratory) 4 credits
Lecture and accompanying lab focused on the structure and function of the human body. Emphasis will be on metabolism, homeostasis, reproduction, and major organ systems. Designed for Allied Health students. Required course for Dual Degree Nursing Program majors and Health Studies majors in the Health Science Track. Course may not be used to fulfill requirements for the Biology major or minor. Prerequisite SCDV—210. Lab fee. (ATTR: ARTS)

SCDV—220. Healthcare Informatics 3 credits
This course introduces students to the principles and application of healthcare informatics and technologies used in traditional and newly evolving healthcare environments. The course will prepare the student to apply computer technology to the management of individuals, groups, or organizations in the various roles of healthcare providers and researchers. Emphasis is on becoming knowledgeable with available resources useful in patient care and educational settings. The interface between the health care delivery system and informatics to provide quality evidence-based client care will be examined. Informatics use in administration, education, research, and clinical practice will be explored. (ATTR: ARTS)

SCDV—230. Electronics (3 hours lecture, and 3 hours laboratory) 4 credits
An introduction to analog and digital electronics. Diode, transistor, and operational amplifier circuits. Combinational and sequential logic, state machine design. Three hours of lecture and four hours of laboratory a week for one semester. Prerequisite: PHYS—120 or 140. Lab fee.

SCDV—250. Practicum for Emerging Scientists 1 to 3 credits
Field study for science students in the early stages of their academic careers. The primary objective is to develop in the student an awareness of how classroom concepts are converted into applications of value in today's society through participation in ongoing applied or basic research or development programs in a business or industry. The students will work in an area covered by the department of Biology, Chemistry and Biochemistry, Computer Science, Mathematics, Environmental Studies, or Physics and will be supervised by a professional in the field. Students will be required to keep a log of their activities, and prepare a summary report and presentation of their experience at the end of the semester. No student may apply more than 6 credits of SCDV - 250 credit towards their degree, and no more than 3 credits of SCDV -250 may be taken in a semester. This course is offered on a pass/fail grading system only. Prerequisites: Prior to taking this course, students must have completed at least 15 credits at Siena, have sophomore standing, completed a two semester science course sequence in the field experience subject area and earned a grade of B or higher in both courses, have an overall GPA of 3.0 or higher, a recommendation from a Siena faculty member in the field experience department, and permission of the School of Science Intern Coordinator. (ATTR:ARTS)

SCDV—400. Advanced Topics in Science 1-3 credits
This course will explore advanced science topics, often interdisciplinary in nature not covered in regular course offerings. Topics are selected on the basis of faculty and student interests. Pre-requisites depend on the topics being offered and course registration requires permission of the instructor. This course may be taken more than once with different topics. (ATTR: ARTS)

SCDV—480. Internship in Science 1 - 3 credits Field Study, 45-135 hours
Field study in subject areas covered by the departments of Biology, Chemistry, Computer Science, Mathematics, or Physics. The primary objective is to develop in the student an awareness of how theoretical concepts are converted into applications of value in today's society through participation in ongoing applied or basic research or development programs in the facilities of business, industry, and government. Students will work approximately 6 hours per week for 1 credit, 9 hours per week for 2 credits, or 12 hours per week for 3 credits. The time may be spent on a single project or on a variety of tasks agreed upon by the School of Science Intern Coordinator and the supervisor. Students will be required to keep a log of their activities and to prepare a summary report of their experience at the end of the semester. At the request of the host institution and the discretion of the Intern Coordinator, a student may extend the internship until a total of six credits has been earned. No students may apply more than 6 credits of internship experience in any combination of fields

towards their degree (except for international internships). May be taken on a pass/fail grading system only, but does not count against the one elective pass/fail option per semester. Offered during the summer and academic year. Prerequisites: Junior standing, 14 or more credits in a single department in the School of Science (Internship must be in a subject covered by this department), and permission of the School of Science Intern Coordinator. (ATTR: ARTS, INT)

SCDV—490. Data Science Team Project 3 credits

Student teams will work on semester-long projects under the guidance of the instructor. Students will study data related problems and various concepts, techniques and technologies for tackling the problems. Class time will be used to organize teams, coordinate schedules, develop work plans, and present team progress reports. Presentations will be made by faculty members and industry professionals engaged in data-related problems. The project teams will comprise students with different levels of expertise. Students minoring in Data Science will be grouped with students majoring in Data Science. Students will tackle data problems from either real clients (internal and external) or from instructor-developed problems similar to those found in the professional workplace. A goal of the course is to help students integrate the knowledge and skills they acquired in previous courses and demonstrate their ability to work together to develop practical solutions to realistic data problems. Prerequisites: SCDV—110 and MATH—220 and QBUS—200 or MATH—275 or ATDV—110 (ATTR: ARTS)

SCDV—499. Independent Study in Science 1 - 3 credits

This course provides an opportunity for seniors with a 3.0 or above to pursue independent study that is interdisciplinary or that does not fit within a single department's guidelines. The permission of a faculty member and the Dean is required.

Biology Department

Chair: Dr. James Angstadt, Prof.

Prof.: Dr. Edward J. LaRow, Dr. Rachel Sterne-Marr ,
Dr. Nina Zanetti

Assoc. Prof.: Dr. Gregory T. Byrnes (sabb. Sp. '18), Dr. Christopher W. Harbison,
Dr. Kenneth Helm, Dr. D. Adam Mason, Dr. Lise D. Wilson

Asst. Prof.: Dr. Sarah Berke, Dr. Thomas Giarla,
Dr. Kearney Gunsalus, Dr. Anna McLoon

Instructional Asst. Prof.: Dr. Seema Chaturvedi, Dr. Stephanie Vernooy

Visiting Asst. Prof.: Dr. Bridgit Goldman

Health Professions Advisor: Dr. Elizabeth Brookins

Allied Health Professions Advisor: Mrs. Eileen Martino

The Biology Department develops in each student an appreciation for contemporary issues in biology and an understanding of the principles governing life through a laboratory-intensive curriculum taught by faculty dedicated to enriching the learning experience. A variety of courses, coupled with an effective advising system, prepares the Biology major for:

1. Professional studies in the areas of medicine, dentistry, optometry, veterinary medicine, chiropractic and other health-related fields such as physical therapy and physician's assistant. (See section of catalog under "Articulation Agreements and Cooperative Programs")
2. Graduate studies in sub-specialties of Biology including Animal Behavior, Biochemistry, Botany, Cell Biology, Conservation Biology, Developmental Biology, Ecology, Endocrinology, Environmental Biology, Evolution, Forensic Science, Genetics, Immunology, Microbiology, Molecular Biology, Neuroscience and Physiology.
3. Secondary education certification in collaboration with the Education Department.
4. A variety of other careers including public health administration, genetic counseling, bioinformatics and jobs in the pharmaceutical and biotechnology industries.

A major emphasis of our program is to encourage critical thinking and an active engagement in the biological sciences. We do this by keeping class sizes small and including a laboratory experience as an integral component of most courses. Many laboratories incorporate an independent project where students build on the concepts and techniques they have learned by designing and carrying out an experiment of their choice. Some examples of recent projects include studies of cartilage and bone formation in chick embryos, diversity of fish species in local streams, hormonal modulation of neuronal impulses, host plant selection by a tropical shieldbug, and purification of wheat germ acid phosphatase.

Students in our form and function, physiology, and cell/molecular oriented courses obtain hands-on experience with the most modern techniques and equipment in biology, including: high quality stereo-dissecting; compound, phase and fluorescence microscopes; electrophoretic equipment and computer software for DNA/RNA analysis; PCR thermocyclers; an electroporator for gene transfer; hybridization ovens for Northern and Southern blotting; UV/visible spectrophotometers; a variety of centrifuges including microfuges and ultracentrifuges; state-of-the-art chromatographic and electrophoretic equipment for protein purification and immunoblotting; micromanipulators, intracellular amplifiers and computer-based data acquisition systems for muscle physiology and neurobiology; a microtome, tissue culture facility and dark room.

Other courses, such as vertebrate biology and general, plant, ecology, are truly field oriented—most laboratories involve trips that teach students how to make observations and collect data by standard sampling techniques. Further, many of these laboratories introduce students to environmental issues and applied problems. For example, students on a winter field trip to the Connecticut coast conduct a quantitative survey of overwintering ducks and geese. Students learn census procedures and how to think critically about the impacts of environmental pollutants, such as oil spills, and disturbances, such as water boat traffic, on these birds. Due to our proximity to the Adirondacks and other wildlife preserves, field biology studies are enriched by day and weekend trips to these nearby sites.

Our program encourages research experience by offering credit for Independent Research (on-campus) or Science Internship (off-campus) in biology. Each faculty member maintains a research laboratory where students may carry out research with a professor in a one-on-one situation. When classes are not in session, some students accompany their professors to research field stations. Research experience is open to all interested students and is especially effective in helping students to develop an appreciation of their creative and investigative skills. Many students present their findings in our annual student research poster session or Biology Department seminar, and some publish their work in scientific journals and books.

Requirements for Major, B.S. in Biology (36.000 credits AND 11 courses):

BIOL 110	General Biology I	OR	
BIOL 170	Advanced General Biology		4 cr.
BIOL 120	General Biology II	OR	
BIOL 180	Advanced Gen Biology Seminar		2 or 4 cr.
BIOL 190	Writing and Research Skills for Biologists		3 cr.
BIOL 220	Cell Biology		4 cr.
BIOL 260	Molecular Genetics		3 or 4 cr.

1 course from each of the following areas:

Form and Function (FORM)	4 cr.
Organismic & Population (ORPO)	3 or 4 cr.
Physiology (PHYL)	4 cr.

3 additional Biology Electives 225 level or greater with the exception of BIOL—299, BIOL—399, Genetics Lab or BIOL—490. Capstone research in Biology (Biol-499) may fulfill one of the three additional courses.

Biology majors must earn a C- or better in any biology course listed as a prerequisite for another biology course; non-majors must earn a D- or better. Students who fail to meet this criterion may be removed from the class roster prior to the start of classes. Students will be notified in advance of any such changes.

Auxiliary (32.000 credits)

CHEM 110	General Chemistry I		4 cr.
CHEM 120	General Chemistry II		4 cr.
CHEM 210	Organic Chemistry I		4 cr.
CHEM 220	Organic Chemistry II		4 cr.
MATH 105	Calculus IA	OR	
MATH 110	Calculus I		4 cr.
MATH 115	Calculus IIA	OR	
MATH 120	Calculus II		4 cr.

PHYS 110	General Physics IA	OR	
PHYS 130	General Physics I		4 cr.

PHYS 120	General Physics IIA	OR	
PHYS 140	General Physics II		4 cr.

Requirements for the Major, B.A. in Biology /Albany Medical Program (33.000 credits):

BIOL 110	General Biology I	OR	
BIOL 170	Advanced General Biology		4 cr.

BIOL 120	General Biology II	OR	4 cr.
BIOL 180	Advanced Gen Biology Seminar		2 cr.

BIOL 190	Writing and Researching Skills for Biologists		3 cr.
BIOL 220	Cell Biology		4 cr.
BIOL 260	Molecular Genetics		3 cr.
BIOL 420	Biochemistry		4 cr.
BIOL 490	Biology Seminar		2 cr.

*Biology Seminar must have medical topic as subject.

1 course from each of the following areas:

Form and Function (FORM)	4 cr.
Organismic & Population (ORPO)	3 or 4 cr.
Physiology (PHYL)	4 cr.

Auxiliary (53.000 credits)

CHEM 110	General Chemistry 1		4 cr.
CHEM 120	General Chemistry II		4 cr.
CHEM 210	Organic Chemistry I		4 cr.
CHEM 220	Organic Chemistry II		4 cr.

MATH 105	Calculus IA	OR	
MATH 110	Calculus I		4 cr.

MATH 115	Calculus IIA	OR	
MATH 120	Calculus II		4 cr.

PHIL 210	Ethics		3 cr.
PHYS 110	General Physics IA		4 cr.
PHYS 120	General Physics IIA		4 cr.
PSYC 100	General Psychology		3 cr.
RELG 360	Morals and Medicine		3 cr.
SWRK 200	Social Work Practice Skills		3 cr.

Two additional courses in Philosophy, 200 level and above	6 cr.
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*Students take Honors First Year Seminar 101 and 102 and they are required to take two additional honors courses from the School of Liberal Arts offerings

*Students must successfully complete a minor in one of the programs in the School of Liberal Arts

*Only students accepted into the Albany Medical Program are eligible for the B.A. in Biology.

Requirements for the Minor, Biology (18.000 credits):

BIOL 110	General Biology I	OR	
BIOL 170	Advanced General Biology		4 cr.

BIOL 120	General Biology II	OR	
BIOL 140	General Biology for Social Sciences	OR	
BIOL 180	Advanced General Biology Seminar		2 to 4 cr.

Additional Biology Electives	* At least 4 courses
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BIOL 010, 020, 025 and 040, 299, 399 will not be counted towards the minor.

*The total number of elective credits will vary depending on which general biology course(s) are taken. Students may have to take more than four courses to reach the total credits required for the minor.

Education Certification: Students seeking admission to the Biology certification sequence should be approved by both the Biology Department and the Education Department no later than the junior year. Requirements for initial approval, as well as admission to the professional semester, will normally include a minimum GPA of 3.0 in biology, 2.75 overall, and demonstration of strong communication skills. Certification students are required to complete all courses required for the major in biology. An additional 28 hours of education courses are taken in consultation with the Education Department. Included in these is Instructional Theory and Practice in Science (EDUC—481) which will be allowed to substitute for one elective course in biology. It is anticipated that returning and continuing students seeking biology certification will have fulfilled all the above requirements (or their equivalents in the case of coursework). Under certain circumstances, applicants with relevant life experience may apply for an individualized program involving updating of background and demonstration of competence with advanced coursework in biology.

Advanced Placement (AP) Biology: Students who have a score of 4 or 5 on the AP examination will receive 3 credits in BIOL-040. Those students majoring in biology or earning a minor in biology also have the option of taking the Advanced General Biology course sequence: *Fall Semester:* Advanced General Biology (BIOL—170) 4 credits, *Spring Semester:* Advanced General Biology Seminar (BIOL—180) 2 credits.

Department Colloquia: In order to help inform the student about the latest developments in the biological sciences, the department schedules colloquia (non-credit) on several Friday afternoons during the course of the semester. These colloquia feature guest lecturers from other institutions, Siena faculty reporting their research results, and students presenting results of independent research projects. Several sessions are designed to provide information about the career options available to Biology graduates. The attendance of all Biology majors is expected.

Description of Courses

BIOL—010. Topics in Environmental/Population Biology (3 hours lecture) 3 credits

This course will be offered with emphasis on different topics. The content will be designated by subtitle. Students may take this course more than once with different content. Not open to Biology majors. This course is designed to fulfill part of the School of Science Core requirement for School of Liberal Arts and School of Business students. (ATTR: ARTS, CAN) Examples of special topics include:

Principles of Evolution

Major evolutionary principles will be analyzed to develop an understanding of human origins. Topics covered include: The history of evolutionary theory, genetic basis of evolution, ecological basis of evolution, and current evolutionary theory. (ATTR: ARTS, CAN)

Animal Behavior

An evolutionary approach to the study of animal behavior. Topics include an introduction to genetics and evolution, the evolution of behavior, social behavior, reproductive and parental behavior, and competition. (ATTR: ARTS, CAN)

BIOL—020. Topics in Human Biology (3 hours lecture) 3 credits

This course will be offered with emphasis on different topics. The content will be designated by a subtitle. Students may take this course more than once with different content. Not open to Biology majors. This course is designed to fulfill part of the School of Science Core requirement for School of Liberal Arts and School of Business students. (ATTR: ARTS, CAN, STVN) Examples of special topics include:

Nutrition

This course is designed to help students evaluate their eating habits based on quantity and distribution of nutrients. Topics will include the chemical nature and biological function of the six classes of nutrients: carbohydrates, lipids, proteins, vitamins, minerals, and water. Additionally, current nutritional ideas on health and disease will be examined. (ATTR: ARTS, CAN, CDN)

Drugs and the Human Body

Covers the biochemistry and physiology of drug action. Topics will include stimulants, depressants (rohypnol and alcohol), analgesics (pain relievers), steroids (oral contraceptives, RU486 - the abortion pill, and anabolic

steroids), marijuana, hallucinogens, and drugs used to treat depression and anxiety. Emphasis will be placed on how these drugs work and how they affect the human body. (ATTR: CAN,CDN)

Biology of Breast Cancer

A study of breast cancer through the lens of evolutionary medicine. Lecture, discussion and laboratory work on breast cancer will be used to explore how the biological disciplines of cell and development biology, endocrinology, genetics, and environmental biology are related to this disease. Studies of breast cancer screening, treatment, and incidence will be used to explore theories of cancer, and the use of evidence-based medicine. Illness narratives will be used to explore the cultural attitudes about breasts, lactation and breast cancer. A major emphasis of the course is the development of skill in reading primary medical literature on breast cancer. (ATTR: ARTS, CAN)

BIOL—025. Human Biology (3 hours lecture) 3 credits

This course covers the principles of anatomy, physiology and genetics as applied to human health and disease. Content is focused on four systems: genetics and development, cardiovascular system, neuro-muscular system and digestive system and nutrition. Through study of clinical applications, students will understand 1) the biological basis of human diseases, 2) the physiological consequences of disease progression, including treatments and prevention and 3) how to access and use medical and scientific information to investigate questions in human biology. Demonstrations, experiments and readings will support these topics and allow exploration of ethical and other issues relevant to human biology. In addition, all students will take part in a long-term independent investigation of a case study in human health. Not open to biology majors. This course is designed to fulfill part of the School of Science Core requirement for School of Liberal Arts and School of Business students. (ATTR: ARTS, CAN, CDN, STVN)

BIOL—040. Non-core Topics in Biology (3 hours lecture) 3 credits

A course similar to BIOL-010 and BIOL-020, except that the topics offered have not been approved to fulfill College Core requirements. Students earning a score of 4 or 5 on the Biology AP exam will receive credit for this course. Students may take this course more than once with different content. Does not count for College Core. (ATTR: ARTS)

BIOL—110. General Biology I (3 hours lecture, 3 hours laboratory) 4 credits

Lectures covering the general principles of Biology with evolution as the unifying theme. Topics include the scientific method, mechanisms of evolution, genetics, biochemistry, cell structure and function. Lab work includes experiments designed to illustrate basic biological concepts. Emphases include developing and testing hypotheses and writing laboratory reports. This course is intended primarily for School of Science majors. Required course for Health Studies majors. Lab fee. (ATTR: ARTS, CAN, STVN)

BIOL—120. General Biology II (3 hours lecture, 3 hours laboratory) 4 credits

This course is a continuation of BIOL—110. Emphasis is on the diversity of living organisms including morphology, phylogeny, physiology, and ecology of major taxa. Lab work includes experiments designed to illustrate basic biological concepts. Emphasis is on the diversity of life. This course is intended primarily for School of Science majors. Required course for Health Studies majors. Lab fee. Prerequisite: BIOL—110. (ATTR: ARTS, CAN)

BIOL—140. General Biology for Social Sciences (3 hours lecture, 3 hours laboratory) 4 credits

Lecture and laboratory covering the general principles of physiology with emphasis on human physiology. Topics covered include homeostasis, complementarity of structure and function, and the physiology of selected organ systems. Required course for Psychology and Dual Degree Nursing Program majors. Not open to Biology majors. Lab Fee. (ATTR: ARTS, CDN)

BIOL—170. Advanced General Biology (3 hours lecture, 3 hours laboratory) 4 credits

This course is designed for students who have taken advanced placement biology in high school and achieved a score of 4 or higher on the AP exam. Topics include evolution, classification, and diversity. Students enrolled in this course will choose from the same laboratory sections as those in BIOL—110. Prerequisite: permission of department. Not open to students who have taken BIOL—110 or BIOL—120. Lab fee. (ATTR: ARTS)

BIOL—180. Advanced General Biology Seminar (1 hour recitation, 3 hours laboratory) 2 credits

A survey of contemporary writings in the biological sciences designed to acquaint students with recent advances in the field and with the progression of biological thought. Students enrolled in this course will choose from the same laboratory sections as those in BIOL—120. Prerequisite: BIOL—170. Lab fee. (ATTR: ARTS, HNRS)

BIOL—190. Writing and Research Skills for Biologists (3 hour lecture) 3 credits

This course should be taken concurrently with BIOL—120 or BIOL—220. The purpose of this course is to enable students to present original data in a clear and well-organized report, modeled after the format of primary scientific research papers in biology. Students will receive instruction in various facets of the scientific method including: experimental design, data analysis and presentation, accessing and understanding the scientific literature, and the format of the primary research paper. The course emphasizes group workshops and includes extensive practice in writing, peer editing, and revising scientific papers. (ATTR: ARTS)

BIOL—195. Health Studies Microbiology (3 hours lecture, 3 hours laboratory) 4 credits

Designed for students seeking a basic understanding of the biology of microorganisms with an emphasis on applications to health care. Lectures cover the fundamentals of microbial morphology and physiology and the role of microorganisms in the environment and human disease. Laboratory emphasizes standard techniques of staining, culturing and identifying bacteria. Required course for Dual Degree Nursing Program majors and Health Studies majors in the Science Track. Not open to Biology majors. Lab fee. (ATTR: ARTS)

BIOL—200. Intermediate Topics in Biology (3 hour lecture) 3 credits

This course will explore, at an intermediate level, a biological topic not covered in regular course offerings. Course topics in the areas of morphology, physiology, cell/molecular biology or ecology are possible, as are topics of a more interdisciplinary nature. Topics will be announced during pre-registration in the preceding semester. This course may be taken more than once with different content. Prerequisites: BIOL—110 and 120; OR BIOL-110 and 140; OR BIOL-170 and 180, and in most cases additional prerequisites that will vary depending on the topic given—see schedule of classes. (ATTR: ARTS)

BIOL—220. Cell Biology (3 hours lecture, 4 hours laboratory) 4 credits

A study of the molecular organization of cells as it relates to function. The plasma membrane, the various membranous organelles, the nucleus, and the cytoskeleton are correlated to membrane transport, respiration, photosynthesis, cell growth and division, cell communication, basic genetic mechanisms, and cell motility. The labs are correlated to the lecture topics and are designed to introduce students to the techniques and equipment used in modern cell and molecular biology research. Prerequisites: BIOL—110 and 120; OR BIOL—110 and 140; OR BIOL—170 and 180; and CHEM—110, 120. Lab fee. (ATTR: ARTS)

BIOL—225. Ecology (2 hours lecture, 4 hours laboratory) 3 credits

A study of the interrelations of organisms with each other and the environment. The lectures are equally divided between ecosystem ecology (energy and material flux, modeling) population ecology (population dynamics, competition, predation) and community ecology (structure, diversity, and succession). The lab will emphasize methodology with weekly field trips to various local habitats. One weekend field trip is required. Prerequisites: BIOL-110 and 120; OR BIOL-170 and 180. Lab fee. (ATTR: ARTS, CFN, ORPO)

BIOL—230. Biology of the Vertebrates (2 hours lecture, 4 hours laboratory) 3 credits

A study of the vertebrates with an emphasis on evolution, ecology and behavior. While all classes of vertebrates are examined, fishes, reptiles and amphibians receive the most attention. Local species are studied in several natural habitats, such as streams marshlands and forests, where data are taken and subsequently analyzed using statistical software. The course will include a weekend field trip to, for example, the Connecticut coast to study the migration of shorebirds. Prerequisites: BIOL-110 and 120; OR BIOL-170 and 180. Lab fee. (ATTR: ARTS, CFN, ORPO)

BIOL—235. Tropical Biology (2 hours lecture, 2 week field trip) 3 credits

A study of ecological processes in tropical ecosystems, emphasizing the ecology of tropical rainforests. The laboratory portion of the course will involve two weeks of intensive field work in a tropical rainforest. Prerequisites: BIOL-110 and 120; OR BIOL-110 and 140; OR BIOL-170 and 180. There is a separate field trip fee. (ATTR: ARTS, CFN, ORPO)

BIOL—240. Plant Ecology (2 hours lecture, 4 hours laboratory) 3 credits

Lectures cover in detail the natural history and ecology of plants with an emphasis on the communities of northeastern North America. Laboratories include field studies of local plants and two overnight weekend field trips to unique plant communities in the region. Prerequisites: BIOL-110 and 120; OR BIOL-170 and 180. Lab fee. (ATTR: ARTS, CFN, ORPO)

BIOL—245. Tropical Marine Ecology (2 hour lecture, 2 week field trip) 3 credits

A study of ecological processes in marine environments of the tropics. Lectures will emphasize the application of basic ecological principles to life in the ocean, then focus on characteristics of marine habitats in the tropics and of the groups of organisms that occur there. The laboratory portion of the course will involve two weeks of intensive field work at a tropical marine laboratory. Because this field experience occurs after Commencement, seniors may not use this course to meet graduation requirements. They may take this course if a.) they are willing to miss commencement, and b.) they meet all graduation requirements without this course. As an alternative, seniors may postpone graduation until the next commencement. Prerequisites: BIOL-110 and 120; OR BIOL-170 and 180. There is a separate field trip fee. (ATTR: ARTS, CFN, ORPO)

BIOL—250. Biology of the Invertebrates (3 hours lecture, 3 hours laboratory) 4 credits

A study of the evolutionary relationships, ecology, physiology, and morphology of the invertebrates. Invertebrates represent 98% of all animals on Earth, making this course an exploration of animal diversity in the broadest sense; it is impossible to fully understand ecological systems or the tree of life without a foundation in invertebrate biology. The laboratory includes live observations as well as dissection of characteristic members of each phylum and experiments dealing with physiology and behavior. Some labs will involve field work; weekend field trips and overnight trips are possible. Prerequisites: BIOL—110 and 120; OR BIOL-170 and 180. Lab fee. (ATTR: ARTS, CFN, ORPO)

BIOL—255. Comparative Anatomy of the Vertebrates (3 hours lecture, 3 hours laboratory) 4 credits

A study of the taxonomy, morphology, and evolution of the vertebrates. Emphasis will be placed on the nature of evolutionary processes and the resulting modifications in vertebrate morphology and function. The laboratory involves the detailed dissection of representative vertebrates. Prerequisites: BIOL-110 and 120; OR BIOL-110 and 140; OR BIOL-170 and 180. Lab fee. (ATTR: ARTS, FORM)

BIOL—260. Molecular Genetics (3 hours lecture, 4 hours laboratory - optional) 3 or 4 credits

Lecture: A review of classical genetics coupled with an introduction to molecular genetics. Topics include Mendel's laws, linkage, complex traits, genetic analysis, biochemistry of nucleic acids, gene expression, molecular cloning, gene therapy, human genome project and other contemporary topics. Prerequisites: BIOL—220, CHEM—210.

Optional laboratory: Use of the model genetic organisms, *Escherichia coli*, *Saccharomyces cerevisiae* and *Arabidopsis thaliana*, to demonstrate the power of genetic research. Students will use techniques of classical and molecular genetics to generate and characterize mutants. Laboratory may be taken independently for 1 credit if BIOL—260 was completed previously as lecture only (3 credits) with a grade of C or better. (ATTR: ARTS)

BIOL—265. Principles of Evolution (3 hours lecture) 3 credits

A survey of the synthetic theory of organic evolution. Major topics include: historical development of evolutionary thought, population genetics, speciation mechanisms, and adaptation. Basic evolutionary theory will be complemented with a review of empirical evidence relating to the evolutionary processes in both natural and experimental populations. Topics in human evolution will be covered which include: the origin of man, evolution of bipedalism, and tool use. Prerequisites: BIOL-110 and 120; OR BIOL-110 and 140; OR BIOL-170 and 180. (ATTR: ARTS)

BIOL—270. Ornithology (3 hours lecture) 3 credits

Birds (*Aves*) are perhaps the best-studied class of organisms on earth. Indeed, bird research has brought about many of the major advances in ecology, evolution, behavior and conservation. This course provides a comprehensive overview of bird biology, emphasizing the evolutionary origins and early radiation of birds, molecular systematics, behavior, ecology, communication and conservation. The laboratory will combine comparative studies of bird specimens with field investigations. Students will also design and conduct individual research projects. If taught in the spring, the laboratory portion of the course will be conducted as an off-campus field course (10-12 days) involving intensive outdoor research projects at various field stations, and will have a separate field trip fee. Written permission of the instructor is required when offered in the spring semester. Note - if taught in the spring, the field trip takes place after Commencement, so seniors would not be able to use this course to meet graduation requirements. Seniors can take this course in the spring if they 1) meet all graduation requirements without this course, or 2) are willing to postpone their official graduation until the next semester (they would still be able to walk in their graduation ceremony). Prerequisite: BIOL-110 and 120; OR BIOL-110 and 140; OR BIOL-170 and 180. (ATTR: ARTS, CFN, ORPO)

BIOL—299. Introductory Research in Biology 1 credit

Laboratory, field research, or literature study under the direction of a faculty member. Designed for students seeking an initial exposure to the study of biology in a research setting. Arranged by mutual consent of student and faculty member. Credit for introductory research may be earned in more than one semester. This course may not be counted towards the minor in Biology. Prerequisites: Written permission of instructor required. (ATTR: ARTS)

BIOL—310. Plant Physiology (3 hours lecture, 4 hours laboratory) 4 credits

The structural, biochemical, and cellular strategies that plants use to grow and develop will be explored. Topics will include photosynthesis and metabolism, control of water uptake, vascular systems, hormone signaling, environmental perception (light, gravity, day length, etc.), and responses to environmental stress. Where possible, we will compare and contrast physiological and cellular processes in plants with equivalent ones found in animals. The laboratory corresponds closely with lecture, provides hands-on training in many modern physiological and cellular techniques, and includes a multi-week independent study project. There is typically a field trip to the New York Botanical Garden at the end of the semester. Prerequisite: BIOL—220. Prior completion of BIOL—190 recommended. Lab fee. (ATTR: ARTS, PHYL)

BIOL—320. Microbiology (3 hours lecture, 4 hours laboratory) 4 credits

Lectures cover the morphology, physiology, and classification of bacteria, molds, yeast, and fungi. Laboratory work consists in employing the standard techniques of bacteriological staining; the culture of microorganisms on various media to determine their morphological and physiological characteristics; the isolation of microorganisms from soil, water, plants, and insects; and representative exercises which give an insight into the respiratory, enzymatic, biochemical, and fermentative activities of microorganisms. Prerequisite: BIOL—220. Lab fee. (ATTR: ARTS)

BIOL—325. Behavioral Ecology (2 hours lecture, 4 hours laboratory) 3 credits

The course will explore the relationship between animal behavior, ecology and evolution. We will examine how animals behave under specific ecological conditions and ask why such behaviors evolved. Topics of particular interest include problems of finding living space, food, and mates; social interactions among individuals and groups; and the ways that behavior affects population size and location. One weekend field trip is planned. Prerequisites: BIOL-110 and 120; OR BIOL-110 and 140; OR BIOL-170 and 180. Lab fee. (ATTR: ARTS, CFN, ORPO)

BIOL—330. Arthropod Biology (2 hours lecture, 4 hours laboratory) 3 credits

A study of aquatic and terrestrial arthropods integrating ecology and physiology with systematics. Laboratory work includes field studies of local habitats, and the investigation of unique arthropod physiological and behavioral adaptations. In addition, the pathological role of arthropods as parasites and disease vectors is considered. Prerequisites: BIOL-110 and 120; OR BIOL-170 and 180. Lab fee. (ATTR: ARTS, ORPO)

BIOL—335. Developmental Biology (3 hours lecture, 3 hours laboratory) 4 credits

This course is designed to give a firm background in classical animal embryology, as well as to introduce current questions of developmental biology at cellular, tissue, and organismal levels. Topics include gametogenesis, fertilization, early development and organogenesis. Prerequisites: BIOL-110 and 120; OR BIOL-170 and 180. Lab fee. (ATTR: ARTS,FORM)

BIOL—340. Histology (3 hours lecture, 3 hours laboratory) 4 credits

Morphology of cells, tissues, and organs with emphasis on the relationship of structure to function at each level of organization. Laboratory includes the study of electron micrographs of cells, histological slides of tissues and organs, and the preparation of slides. Prerequisites: BIOL-110 and 120; OR BIOL-170 and 180. Lab fee. (ATTR: ARTS, FORM)

BIOL—345. Developmental Genetics 4 credits

This course will examine the molecular mechanisms that control animal developmental processes. This will include a description of the genes and regulatory mechanisms that direct development in a range of animals, as well as the experimental basis for our understanding of these processes. The use of invertebrate model genetic organisms to identify conserved components and mechanisms of development will be highlighted. Prerequisites: BIOL—220 and BIOL—260. Lab fee. (ATTR: ARTS, FORM)

BIOL—399. Independent Research in Biology 1-3 credits

Laboratory or field research of an original nature under the direction of a faculty member. Designed for students seeking an intensive research experience. Arranged by mutual consent of student and faculty member. Credit for

independent research may be earned in more than one semester. This course may not be counted towards the minor in Biology. Prerequisites: Written permission of instructor required. (ATTR: ARTS)

BIOL—400. Advanced Topics in Biology 0-4 credits

This course will explore, at an advanced level, a biological topic not covered in regular course offerings. Course topics in the areas of form and function, physiology, cell/molecular biology or ecology are possible, as are topics of a more interdisciplinary nature. Topics will be announced during pre-registration in the preceding semester. This course may be taken more than once with different content. Prerequisites: BIOL-110 and 120; OR BIOL-110 and 140; OR BIOL-170 and 180; and in most cases additional prerequisites that will vary depending on the topic given—see schedule of classes. In cases where a laboratory is offered, a lab fee will be assessed. (ATTR: ARTS)

BIOL—420. Biochemistry (3 hours lecture, 4 hours laboratory) 4 credits

An introduction to protein structure and function, enzyme kinetics, and the regulation of metabolism. Laboratory component provides experience with concepts and techniques introduced in lecture and features an independent project in protein purification using state-of-the-art column chromatography and gel electrophoresis equipment. Prerequisites: BIOL—220, CHEM—210; and either BIOL—190 or CHEM—311 (BIOL -190 or CHEM 311 may be taken concurrently). Lab fee. (ATTR: ARTS)

BIOL—425. Molecular Biology (3 hours lecture, 4 hours laboratory) 4 credits

The course will cover the principles of gene structure, function, organization and expression in prokaryotes and eukaryotes. Some specialized aspects of eukaryotic genes such as gene mobility, gene rearrangement, cancer genes and animal virus genetics will be studied. Gene manipulation through recombinant DNA technology, and applications of this technology in basic research and industry will be discussed in lecture and illustrated through laboratory exercises involving the isolation, cloning and expression of genes in bacteria and mammalian cells. Prerequisite: BIOL—260. Lab fee. (ATTR: ARTS)

BIOL—430. Animal Physiology (3 hours lecture, 4 hours laboratory) 4 credits

The functions of organ systems of invertebrates and vertebrates will be covered with emphasis on the interdependent relationships of organ systems and their regulatory mechanisms. Topics covered in lecture and laboratory are the nervous, muscular, circulatory, respiratory and excretory systems, as well as principles of environmental physiology including discussion of ionic, osmotic, and thermal regulation. Prerequisite: BIOL—190 and 220. Lab fee. (ATTR: ARTS, PHYL)

BIOL—440. Neurobiology (3 hours lecture, 4 hours laboratory) 4 credits

The lectures will cover the structure and function of individual neurons and neuronal circuits in both invertebrate and vertebrate species. Topics will include electrical signaling and action potentials, ion channels, synaptic transmission, neuronal plasticity, and general principles governing sensory and motor processing. The laboratory will provide students with hands on experience using fundamental electrophysiological techniques. Students will also investigate neuronal function using computer simulations of ion channels, neurons and circuits. Prerequisite: BIOL—220. Lab fee. (ATTR: ARTS, PHYL)

BIOL—450. Comparative Biomechanics 4 credits

The lectures will cover organism structure and function in terms of mechanical principles. The course will focus on biological examples to introduce the basics of fluid and solid mechanics with topics including properties of biological materials, muscle function, and terrestrial, aquatic, and aerial locomotion. The laboratory will provide students with hands on experience using fundamental biomechanical techniques to study both human and other organismal subjects. Prerequisites: BIOL-220; and either PHYS-110 or 130 (may be taken concurrently). Lab fee. (ATTR: ARTS, PHYL)

BIOL—460. Immunology (3 hours lecture) 3 credits

The cellular basis of the humoral and cell mediated immune response will be covered with emphasis on the mechanisms of cell cooperation. Topics covered are: lymphocyte populations, the role of the macrophage, immunoglobulin synthesis and the generation of diversity, the genetics of the immune response and the role of the major histocompatibility complex, the complement system and the development of hypersensitivities. Prerequisite: BIOL—220, 260. (ATTR: ARTS)

BIOL—490. Biology Seminar 1 credit

Offered each semester with a topic selected to serve as a central theme for that semester. One meeting each week for presentations by students, faculty, and guests. May be taken more than once with different content. Consult fall and spring schedules for specific topics. Written permission of instructor required. (ATTR: ARTS)

BIOL—499. Capstone Research in Biology 2 - 3 credits

Designed for students with extensive research experience who are completing their final semester at Siena. As part of this experience, the student must write a full scientific paper describing their research project. Arranged by mutual consent of student and faculty member. Written permission of instructor required. Prerequisites: Successful completion of at least 2 credits of BIOL—399. (ATTR: ARTS)

Chemistry and Biochemistry Department

Chair: Dr. George L. Barnes, Assoc. Prof.

Assoc. Prof.: Dr. Jason D. Hofstein, Dr. Thomas S. Hughes,
Dr. Jesse W. Karr, Dr. Daniel Moriarty, Dr. Jodi L. O'Donnell,
Dr. Kevin P. Rhoads, Dr. Lucas J. Tucker

Asst. Prof.: Dr. Stephen Deyrup, Dr. Erin Kolonko

Visiting Asst. Prof.: Dr. Matthew D. Fodor

Visiting Inst.: Ms. Allycia M. Barbera

The Chemistry and Biochemistry Department provides students with the opportunity to develop a strong foundation in chemical principles and their laboratory applications. This foundation enables Chemistry and Biochemistry graduates to pursue a wide range of careers in chemical industry, research, chemical education, chemical and biochemical engineering, or in interdisciplinary fields such as medicine, dentistry, other health professions, environmental science, biochemistry, forensic science, or patent law.

Three courses of study are offered:

1. B.S. in Chemistry. This program provides chemistry students with a foundation in a variety of chemical subdisciplines. Graduation from this program leads to a degree that is approved by the ACS and requires both a research experience and a written thesis. This program is recommended for students interested in the health professions, graduate study in chemistry or employment in the chemical industry.
2. B.S. in Biochemistry. The Biochemistry Major is an interdisciplinary major incorporating selected courses in chemistry and biology, as well as courses in physics and mathematics, to give students a well-rounded grounding in Biochemistry. The Biochemistry Major is excellent preparation for careers in the health profession or for graduate studies not only in biochemistry but also in related fields such as molecular biology, biotechnology, pharmacology, and medicinal chemistry.
3. The 3/2 Cooperative Engineering (five-year) program. In this program, students earn an ACS approved B.S. degree in Chemistry from Siena and a B.Ch.E. from an affiliated institution. It is tailored for students desiring a career in Chemical Engineering. Students spend the first 3 years at Siena and the last 2 years at one of the following cooperating institutions: Rensselaer Polytechnic Institute, Clarkson University, Manhattan College and Western New England College. Each student will meet with the Engineering Coordinator at least once each semester.

Instrumentation is very important in modern chemical practice. Available instruments within the Chemistry and Biochemistry Department or in the SAInT center include: MALDI mass spectrometer, atomic force microscope (AFM), scanning electron microscope (SEM), HD mass spectrometer, total organic carbon (TOC) and total nitrogen analyzer, ultraviolet/visible spectrophotometers, Fourier transform infrared spectrometers, 500 MHz nuclear magnetic resonance spectrometer, atomic absorption spectrometer, X-ray fluorescence spectrometer (XRF), luminescence spectrometer, gas chromatographs, high performance liquid chromatographs, magnetic susceptibility balance, polarimeters, electrochemical analyzer, thermal gravimetric analyzer (TGA), differential scanning calorimeter (DSC), isothermal titration calorimeter (ITC), nano DSC, fast protein liquid chromatograph (FPLC), lyophilizer, and a gel electrophoresis system. Many of these instruments are interfaced with computers.

The Chemistry and Biochemistry Department has laboratories for instruction in the basic Chemistry courses, as well as research laboratories, stockrooms, seminar rooms, and computer facilities. Advanced laboratories are designed to allow flexibility in selecting experiments and conducting special projects. Advanced students have

opportunities for course credit through external internships and independent research projects under faculty supervision.

Additionally, the high performance computing center gives students access to a cutting edge resource that is utilized in both the classroom and research. The HPCC is comprised of 21 nodes with 20 terabytes of global storage. Each node has at least 500 gigabytes of local storage, 32 gigabytes of RAM and 2 E5=2600 Intel Xeon processors operating at 2.3 GHz. There are a total of 240 processing cores available for high-level calculations. Numerous scientific software packages are also available.

Advanced Placement (AP) Chemistry: Students scoring a 4 or a 5 on the AP exam are granted three credits for CHEM 040.

Students must earn a C- or better in any Chemistry course listed as a prerequisite for the following Chemistry courses: CHEM-225, CHEM-240, CHEM-310, CHEM-311, CHEM-316, CHEM-320, CHEM-326, CHEM-340, CHEM-415, CHEM-416, CHEM-425, CHEM-426, CHEM-427, CHEM-428, and CHEM-429.

Requirements for the Major, B.S. in Chemistry (39.000 credits):

CHEM 110	General Chemistry I	OR	
CHEM 170	Advanced General Chemistry		4 cr.
CHEM 120	General Chemistry II		4 cr.
CHEM 180	Advanced General Chemistry II		2 cr.
CHEM 210	Organic Chemistry I		4 cr.
CHEM 220	Organic Chemistry II		4 cr.
CHEM 225	Quantitative Analysis		2 cr.
CHEM 226	Quantitative Analysis Lab		1 cr.
CHEM 240	Inorganic Chemistry I		3 cr.
CHEM 310	Thermodynamics and Chemical Equilibrium		3 cr.
CHEM 311	Chemical Communications		1 cr.
CHEM 315	Physical Chemistry Lab		1 cr.
CHEM 320	Quantum Mechanics and Spectroscopy		3 cr.
CHEM 415	Instrumental Analysis		2 cr.
CHEM 426	Senior Research		1 cr.
CHEM 428	Physical Biochemistry		3 cr.
CHEM 429	Advanced Biochemical Methods		1 cr.
CHEM 430	Inorganic Synthesis		1 cr.
One additional course above CHEM 300 must be taken to complete the major			1 cr.

Auxiliary (16.000 credits)

MATH 105	Calculus IA	OR	
MATH 110	Calculus I		4 cr.
MATH 115	Calculus IIA	OR	
MATH 120	Calculus II		4 cr.
PHYS 110	General Physics IA	OR	
PHYS 130	General Physics I		4 cr.
PHYS 120	General Physics IA	OR	
PHYS 140	General Physics II		4 cr.

Requirements for the Major, B.S. in Biochemistry (53.000 credits):

BIOL 220	Cell Biology		4 cr.
BIOL 260	Molecular Genetics		3 cr.
BIOL 420	Biochemistry		4 cr.
BIOL 320	Microbiology	OR	
BIOL 255	Comparative Anatomy of the Vertebrates	OR	
BIOL 425	Molecular Biology		4 cr.

CHEM 110	General Chemistry I	OR	4 cr.
CHEM 170	Advanced General Chemistry I		
CHEM 120	General Chemistry II	OR	4 cr.
CHEM 180	Advance General Chemistry II		
CHEM 210	Organic Chemistry I		4 cr.
CHEM 220	Organic Chemistry II		4 cr.
CHEM 225	Quantitative Analysis		2 cr.
CHEM 226	Quantitative Analysis Lab		1 cr.
CHEM 240	Inorganic Chemistry I		3 cr.
CHEM 310	Thermodynamics and Chemical Equilibrium		3 cr.
CHEM 425	Biochemical Mechanisms		3 cr.
CHEM 426	Senior Research		1 cr.
CHEM 429	Advanced Biochemical Methods		1 cr.
BIOL 110	General Biology I	OR	4 cr.
BIOL 170	Advanced General Biology		
BIOL 120	General Biology II	OR	4 cr.
BIOL 180	Advanced General Biology Seminar		
BIOL 190	Writing/Researching Skills for Biology	OR	3 cr.
CHEM 311	Chemical Communications		

Auxiliary (16.000 credits)

MATH 105	Calculus IA	OR	4 cr.
MATH 110	Calculus I		
MATH 115	Calculus IIA	OR	4 cr.
MATH 120	Calculus II		
PHYS 110	General Physics IA	OR	4 cr.
PHYS 130	General Physics I		
PHYS 120	General Physics IIA	OR	4 cr.
PHYS 140	General Physics II		

Requirements for the Major, B.S. in Chemistry 3/2 Option (40.000 credits) (five-year program):

CHEM 110	General Chemistry I	OR	4 cr.
CHEM 170	Advanced General Chemistry		
CHEM 120	General Chemistry II	OR	4 cr.
CHEM 180	Advanced General Chemistry		
CHEM 210	Organic Chemistry I		4 cr.
CHEM 220	Organic Chemistry II		4 cr.
CHEM 225	Quantitative Analysis		2 cr.
CHEM 226	Quantitative Analysis Lab		1 cr.
CHEM 240	Inorganic Chemistry I		3 cr.
CHEM 310	Thermodynamics and Chemical Equilibrium		3 cr.
CHEM 311	Chemical Communications		1 cr.
CHEM 315	Physical Chemistry Laboratory		1 cr.
CHEM 320	Quantum Mechanics and Spectroscopy I		3 cr.
CHEM 340	Advanced Topics in Inorganic Chemistry		3 cr.
CHEM 415	Instrumental Analysis		2 cr.
CHEM 426	Senior Research		1 cr.
CHEM 428	Physical Biochemistry		3 cr.
CHEM 430	Inorganic Synthesis		1 cr.

Auxiliary (29.000 credits)

CSIS 110	Introduction to Computer Science		3 cr.
MATH 110	Calculus I		4 cr.
MATH 120	Calculus II		4 cr.
MATH 210	Calculus III		4 cr.
MATH 260	Differential Equations		3 cr.
PHYS 130	General Physics I		4 cr.
PHYS 140	General Physics II		4 cr.
PHYS 210	General Physics III	OR	
PHYS 220	Modern Physics	OR	
PHYS 230	Electronic Instrumentation		3 cr.

Core requirement of 6 credits of social science may be deferred.

Requirements for initial teaching certificate in secondary education in chemistry: Satisfactory completion of any track for a degree in chemistry and all required Education Department courses. Admission to the professional semester requires approval of the Chemistry and Biochemistry Department and the Education Professional Committee, which normally expects a 2.50 GPA in chemistry, a 2.75 overall GPA, and a demonstration of strong communication skills.

Requirements for the Minor, Chemistry (18.000 credits):

CHEM 110	General Chemistry I	OR	
CHEM 170	Advanced General Chemistry I		4 cr.
CHEM 120	General Chemistry II	OR	4 cr.
CHEM 180	Advanced Chemistry II		2 cr.
CHEM 210	Organic Chemistry II		4 cr.
Three additional classes with course numbers CHEM 225 or higher, and at least one of which must have course number 310 or higher.			6 cr.

Requirements for the Minor, Chemical Physics (18.000 credits):

CHEM 110	General Chemistry I	OR	
CHEM 170	Advanced General Chemistry		4 cr.
PHYS 120	General Physics IIA	OR	
PHYS 140	General Physics II		4 cr.

Students must choose one of the following courses for a minimum of 3 credits:

**Please note, if a student chooses to take CHEM 225, they must complete the corresponding lab, CHEM 226.*

CHEM 210	Organic Chemistry	OR	4 cr.
CHEM 225	Quantitative Analysis*	AND	2 cr.
CHEM 226	Quantitative Analysis Lab	OR	1 cr.
CHEM 240	Inorganic Chemistry I		3 cr.

Students must choose two of the following courses for a minimum of 4 credits:

CHEM 310	Thermodynamics and Chemical Equilibrium		3 cr.
CHEM 315	Physical Chemistry Lab		1 cr.
CHEM 320	Quantum Mechanics and Spectroscopy		3 cr.

Students must choose one of the following courses for a minimum of 3 credits:

PHYS 220	Modern Physics	OR	4 cr.
PHYS 222	Modern Physics (no lab)	OR	3 cr.
PHYS 250	Introduction to Computational Physics	OR	4 cr.
PHYS 260	Thermal Physics	OR	3 cr.

PHYS 392	Principles of Astrophysics II	OR	3 cr.
SCDV 230	Electronic Instrumentation	OR	3 cr.

Description of Courses

CHEM—002. Foundations in Chemistry 1-3 credits

Foundations in Chemistry introduces the basic principles of chemistry and establishes the mathematical foundation necessary to succeed in the general chemistry course sequence. Course registration requires permission of instructor. (ATTR: ARTS)

CHEM—010. Topics in Chemistry 3 credits

A survey course of lectures, demonstrations, and laboratories in the principles of chemistry including a discussion of topics of contemporary interest. This course is usually offered with emphasis on a specific topic. When such an offering occurs, the content will be designated by a subtitle. The course is designed to fulfill part of the School of Science Core requirement for School of Liberal Arts and School of Business students, as well as Business and Social Science track Computer Science students. It may be taken more than once with different content. (ATTR: ARTS, CAN, STVN) An example of a special topic follows:

Chemistry in the News

This course will provide a basic background in chemical principles and processes in the context of their role in environmental, health and consumer issues. Topics covered may include ozone depletion, acid rain, global warming, nuclear power and alternative energy sources, recycling, pharmacology, food additives and polymers. The goal of this course is to enable students as informed consumers to critically evaluate scientific issues which have a crucial impact on their lives. (CDN)

CHEM—025. Concepts of Environmental Chemistry 3 credits

The course will provide a basic background in chemical principles and processes in the context of their role in environmental issues. Topics to be discussed include ozone depletion, acid rain, global warming, and general uses and misuses of our natural resources. The goal of the course is to enable students as informed consumers to critically evaluate scientific issues which have a crucial impact on our world. Not open to Biology or Chemistry majors. (ATTR: ARTS, CAN, CDN, STVN)

CHEM—040. Non-core Topics in Chemistry 3 credits

A course similar to CHEM010, except that the topics offered have not been approved to fulfill College Core requirements. Students earning a score of 4 or 5 on the Chemistry AP exam will receive credit for this course. Students may take this course more than once with different content. CHEM040 does not count for College Core. (ATTR: ARTS)

CHEM—050. Chemistry in the Kitchen 3 credits

This course serves as an introduction to basic science and chemical principles that are encountered in everyday interactions with food and cooking. The influence of food on history will also be examined. It is designed to fulfill part of the School of Science core requirement for School of Liberal Arts and School of Business students. (ATTR: ARTS)

CHEM—055. Appreciating Paper: The Chemistry of Making, Recycling, and Using the Medium 3 credits

This course will have an informational discussion of the role chemistry plays in the paper industry. Topics will include the chemistry of how paper is made, what gives it its strength, and what makes it recyclable. We will then move on to the topic of greening up of the environment as it pertains to paper production; the ecological, social, and engineering aspects of paper production and recycling, as well as the act of making your own paper from readily available sources (the students will get to do this in class). Continuing the discussion of the use of paper as a medium, we will focus on the use of paper as an artistic medium. Whether it is a certain choice of canvas for painting or production of tissue paper for flower-making, we will discuss paper's various uses in the art world from a scientific basis. We will conclude by using our knowledge of the science and philosophy of paper and papermaking to discuss, touch, and use various types of paper to do origami projects. The seven axioms of geometrical origami will start the student's orientation into the world of origami, showing them how to fold and manipulate paper. We will discuss the origins of origami, from ancient Japanese toys through the

Yoshizawa era. We will also get to discuss and possibly use advanced origami techniques that utilize sizing solutions to help the paper conform to various shapes (a practice called wet-folding). (ATTR: ARTS)

CHEM—100. Introduction for Forensic Science 3 credits

A course that serves as an introduction to the basic principles of forensic science. The purpose of this course is to provide students with an understanding of forensic science by examining the current techniques and instrumentations that are commonly used to analyze chemical, physical and biological evidence. This course will cover the basic science (chemistry, physics and biology) that is required to understand these analytical techniques, but assumes no prior science background from the students. In addition, this course will examine the societal impact brought about by the advance forensic science in various aspects of American society, including law, culture and media. (ATTR: ARTS, CDN, FCSE)

CHEM—105. Criminalistics (Lecture and Laboratory) 4 credits

Criminalistics is a branch of forensic science that involves the recognition, identification, individualization, evaluation, and reconstruction of "physical evidence". The purpose of this one-semester, laboratory-based course is to acquaint the student with the philosophy and methodology of dealing with physical evidence in a general way. No attempt will be made to provide the student with all of the techniques needed to know to work in a forensic science laboratory. Instead, the general approach is designed to give the student a sound, fundamental base upon which to build. The laboratory aspect of the course will consist mainly of work on unknowns designed to simulate physical evidence problems and to stimulate thinking about them. Select pieces of SAInT Center instrumentation will be introduced. The lecture part of the course will provide much of the theoretical knowledge required to complete the exercises. There are no prerequisites, but it is suggested that the student be familiar with high school mathematics (algebra, geometry and trigonometry). (ATTR: ARTS, FCSE)

CHEM—110. General Chemistry I (Lecture and Laboratory) 4 credits

Lecture and laboratory covering the fundamental laws and principles of chemical structure and reactivity. Interactive laboratories focus on rediscovery of these principles and mastery of basic laboratory techniques including an introduction to chemical instrumentation and data analysis. Three hours of lecture, one hour of studio laboratory, and three hours of practical laboratory each week. Lab fee. (ATTR: ARTS, CAN, CDN, STVN)

CHEM—120. General Chemistry II (Lecture and Laboratory) 4 credits

Lecture and laboratory covering topics in thermodynamics, equilibrium, acids and bases, chemical kinetics, and electrochemistry. Laboratory focuses on chemical analysis by traditional and modern techniques with emphasis on instrumental methods as well as data acquisition and analysis. Three hours of lecture, one hour of studio laboratory, and three hours of practical laboratory each week. Prerequisite: CHEM—110. Lab fee. (ATTR: ARTS, CAN)

CHEM—165. Forensic Chemistry (Lecture and Laboratory) 4 credits

The purpose of this course is to introduce the student to the chemical aspects of forensic science as it applies to criminal investigation and laboratory preparation. This course looks at select pieces of instrumentation and chemistry associated with crimes. We will look at how the instrumentation is used, what type of evidence it can process, how to read the results and the properties of the chemical evidence. This course will also study the general principles and fundamentals of forensic toxicology, poisons, action, toxicity, postmortem characteristics, samples required for toxicological analysis and methods of collection, methods of preservation and analysis. Chemical, toxicological and pathological characteristics of commonly abused drugs, including the following: ethanol, barbiturates, narcotics, stimulants, and hallucinogens. Details of SAInT Center instrumentation and the methods employed for analysis, such as color test, gas chromatography, mass spectrometry, GC-MS, infrared spectroscopy, uv-vis spectrometry, will be a major part of the laboratory portion of the class. This course cannot be used to satisfy either Chemistry or Biochemistry requirements. (ATTR: ARTS, FCSE)

CHEM—170. Advanced General Chemistry (Lecture and Laboratory) 4 credits

This course is designed for students who have strong high school preparation in chemistry. Topics include chemical structure and reactivity, thermodynamics, kinetics, and equilibrium. Three hours of lecture, one hour of studio laboratory, and three hours of practical laboratory each week. Students enrolled in this course will choose from the same laboratory sections as those in CHEM 110. Not open to students who have taken CHEM 110 or CHEM 120. Prerequisite: Permission of the department. (ATTR: ARTS)

CHEM—180. Advanced General Chemistry Seminar (Lecture and Laboratory) 2 credits

A survey of contemporary writings in the chemical sciences designed to acquaint students with recent advances in the field and with the progression of chemical thought. Students enrolled in this course will choose from the same laboratory sections as those in CHEM 120. Prerequisite: CHEM 170. (ATTR: ARTS)

CHEM—210. Organic Chemistry I (Lecture and Laboratory) 4 credits

An introduction to the chemistry of carbon compounds, including the study of bonding, structure, nomenclature, physical and spectroscopic properties, methods of preparation, and reactivity of alkanes, alkenes, alkynes, alkyl halides, and alcohols. Separation and purification techniques are stressed in the laboratory and reaction products are analyzed by spectroscopic and chromatographic methods, including GC, HPLC, FTIR, and FT-NMR. Three hours of lecture and four hours of laboratory each week. Prerequisite: CHEM—120 or CHEM—170 or consent of Instructor. Lab fee. (ATTR: ARTS)

CHEM—220. Organic Chemistry II (Lecture and Laboratory) 4 credits

A continuation of CHEM—210 with emphasis on the functional group chemistry of aromatics, alcohols, ethers, carbonyl compounds, carboxylic acids and their derivatives, and bio-organic molecules. Resonance theory, conjugation, aromaticity, multistep organic syntheses, and reaction mechanisms are explored in detail. Functional group chemistry and multistep syntheses are stressed in the laboratory, along with spectroscopic and chromatographic analysis of products. Three hours of lecture and four hours of laboratory each week. Prerequisite: CHEM—210. Lab fee. (ATTR: ARTS)

CHEM—225. Quantitative Analysis (Lecture) 2 credits

Lecture that addresses the application and theory of various analytical methods including gravimetric, electrochemical, and spectrophotometric analysis, chromatography and statistical treatment of data and error analysis. Two hours of lecture. Prerequisites: CHEM—120 or CHEM—170. (ATTR: ARTS)

CHEM—226. Quantitative Analysis Lab (Laboratory) 1 credits

Laboratory that addresses the application and theory of various analytical methods including gravimetric, electrochemical, and spectrophotometric analysis, chromatography and statistical treatment of data and error analysis. Four hours of laboratory each week. Prerequisite : CHEM—225 (maybe taken concurrently). (ATTR: ARTS)

*CHEM—230. Environmental Chemistry (Lecture and Laboratory) 4 credits

An introduction to the chemical processes that occur in water, air, and soil, and the effects of pollutants on these processes. Consumption of and reliance on limited natural resources will be studied, along with emerging alternative energy sources. The laboratory will emphasize environmental sample collection and preparation, and analysis of these samples by both wet chemical methods and instrumental analysis. Three hours of lecture and four hours of laboratory each week. Prerequisite: CHEM—120 or CHEM—170. May be taken as ENVA—290. Lab fee. (ATTR: ARTS)

CHEM—240. Inorganic Chemistry I (Lecture) 3 credits

An introduction to quantum mechanics/atomic structure, periodicity, valence bond theory, solid state structure/thermodynamics, and the descriptive chemistry of the Main Group. Two hours of lecture each week. Prerequisite: CHEM—120 or CHEM—170. (ATTR: ARTS)

CHEM—305. Intermediate Topics in Organic Chemistry (Lecture) 1 - 3 credits

This lecture course will build on the material covered in CHEM 210/220, and will cover in more detail the structural and physical properties of organic molecules and the reactions they undergo. The structure and physical properties of complex organic molecules will be covered, including sources of strain energy and steric hindrance and their effects on chemical reactivity. The properties of various chemical reaction intermediates, such as carbocations, radicals, carbanions and carbenes will be discussed, as will their involvement in chemical reaction mechanisms. More detailed descriptions of the mechanisms of the reactions covered in CHEM 210/220 will be presented, as will the class of pericyclic reactions and the Woodward-Hoffmann rules that govern them (not covered in CHEM 210/220). This enhanced vocabulary of organic reactions will then be used to learn the planning of the synthesis of organic molecules. Prerequisites: CHEM—220. (ATTR: ARTS)

CHEM—310. Thermodynamics and Chemical Equilibrium (Lecture) 3 credits

The application of mathematics and physics to the solution of macroscopic problems in chemistry. Topics include the properties of ideal and real gases, extensive and intensive properties, the laws and mathematics of thermodynamics, the chemical potential, chemical equilibrium of single and multiphase systems, ideal and real solutions, ionic solutions and electrochemistry, introductory chemical kinetics and kinetic molecular theory. Prerequisites: MATH—120 or MATH—115, PHYS—120 or PHYS—140; and CHEM—120 or CHEM—170 or PHYS—260. It is strongly recommended that a grade of C or better be earned for each prerequisite course. (ATTR: ARTS)

CHEM—311. Chemical Communications (Lecture) 1 credit

This course addresses the conventions and style of all forms of communications in chemistry: scientific writing, oral presentations, presentation of data in tables and figures. This course meets one hour each week. Prerequisite: CHEM—220 minimum grade of C-. (ATTR: ARTS)

CHEM 315 –Physical Chemistry Lab 1 credit

A laboratory course in the study of physical chemistry. The objectives of this course are: (1) To provide the student with practical experience in the techniques of experimental physical chemistry. (2) To deepen the student's understanding of the principles of thermodynamics, kinetics, and spectroscopy through experimentation. (3) To develop more sophisticated and independent chemical laboratory skills in the student. (4) To increase the student's ability to communicate effectively and professionally both in writing and in speech. Three hours of lecture, one hour of studio laboratory each week. Prerequisite: MATH—120 or MATH—115, and PHYS—120 or PHYS—140, and CHEM—120 or CHEM—170, and CHEM—310. (ATTR: ARTS)

CHEM—320. Quantum Mechanics and Spectroscopy 3 credits

This course uses mathematical methods to solve both macroscopic and microscopic problems in chemistry. Specific emphasis will be on chemical kinetics, quantum mechanics, and the theory and practice of atomic and molecular spectroscopy. Topics include the applications of chemical kinetics, experimental foundations of quantum theory, postulates of quantum mechanics, solutions of the Schrodinger equation for simple systems, the hydrogen atom, angular momentum, selection rules and atomic spectroscopy, Huckel molecular theory, symmetry and group theory, rotational, vibrational, and electronic spectroscopy, and experimental applications of molecular spectroscopy. Three hours of lecture. Prerequisite: MATH—120 or MATH—115, and PHYS—120 or PHYS—140, and CHEM—110 or CHEM—170. (ATTR: ARTS)

CHEM—321. Chemical Kinetics (Lecture) 2 credits

This covers basic concepts in chemical kinetics. A central theme is the understanding of rates of chemical reactions, and what they tell us about chemical reactions. This includes: determination of rate laws, the use of rate laws to derive reaction mechanism, and the extrapolation of kinetic data to explore molecular dynamics. Ab Initio calculation of transition state structure and properties will be discussed. Prerequisites: MATH—120 or MATH—130, PHYS—120 or PHYS—140, CHEM—120 or CHEM—170, or permission of instructor. (ATTR: ARTS)

CHEM—330. Chemical Ecology (Lecture) 3 credits

This course delves into the interdisciplinary field of Chemical Ecology through lectures and a week-long trip to Florida during Spring Break. Chemical Ecology is the study of how organisms interact through chemical means. We will explore topics including pheromones, hormones, chemical defenses, sequestration of chemicals, and biosynthetic origins of molecules. Prior to the trip to Florida, you will be provided with the fundamental knowledge base upon which you can build through experiential learning. The trip to Florida will include a 5 day/5 night stay at an independent biological research station (The Archbold Biological Station). Once in Florida, we will explore the world of chemical ecology through the primary literature, talks by the professor, guest lectures, and hands-on experience. Prerequisite: CHEM-210. There is a field trip fee. (ATTR: ARTS, CFN)

CHEM—340. Advanced Topics in Inorganic Chemistry (Lecture) 2 credits

An extensive treatise on molecular orbital theory/bonding, symmetry/group theory, spectroscopy, kinetics/reaction mechanisms, and photochemistry of transition metal coordination compounds. Special topics such as the chemistry of metalloenzymes, organometallic compounds, the chemistry of materials, or industrial catalysis may also be covered as time permits. Prerequisites: CHEM—240 and CHEM—310 or CHEM—320 minimum grade of C- or consent of the instructor. (ATTR: ARTS)

CHEM—345. Bioinorganic Chemistry (Lecture) 2-3 credits

This course describes the interdisciplinary field that unites inorganic chemistry and biochemistry by examining the various roles of metal ions in biological systems - from mechanistic to medicinal uses. It applies fundamental principles of inorganic chemistry (particularly transition metal coordination chemistry) to an understanding of the structure and function of biological macromolecules. Physical methods and instrumentation commonly employed by bioinorganic chemists are also discussed. Using a developed understanding of inorganic chemistry and biochemistry, literature papers on topics of current importance to the bioinorganic community will be discussed. Prerequisites: CHEM-210 or permission of instructor. (ATTR: ARTS)

CHEM—348. Organometallic Chemistry (Lecture) 2 credits

In this class, we will study of the basic principles of the organometallic chemistry of the d-block elements. Topics will include a survey of coordination chemistry, the properties and reactions of organometallic complexes,

and applications of organotransition metal compounds in catalysis, organic synthesis, bioinorganic chemistry and medicinal chemistry. In addition to lectures, we will discuss current literature in the field. Prerequisites: CHEM—220 minimum grade of C- and CHEM—240 minimum grade of C-, or consent of the instructor. (ATTR: ARTS)

CHEM—370. Symmetry and Spectroscopy (Lecture) 3 credits

This course is divided into five modules that address the fundamentals of group theory, qualitative aspects of quantum mechanics, vibrational spectroscopy, molecular orbital theory and electronic spectroscopy. Symmetry and group theory will be applied to the interpretation of molecular orbital interactions, ligand field theory, molecular vibrations, and angular momentum. An introduction to molecular spectroscopy, including vibrational, rotational, and electronic spectroscopy, as well as NMR, Raman, and Mossbauer spectroscopy will be discussed as they pertain to symmetry operations. Molecular symmetry will also be used to interpret optical activity and dipole moments, and spectroscopic interpretation through representation of groups, reducible and irreducible representations, The Great Orthogonality theorem, SALCs, and projection operators. Both spectroscopic and computational methods of demonstration will be used throughout the course. Prerequisites: MATH—120 and CHEM—320 or permission of the instructor(s). (ATTR: ARTS)

CHEM—405. Advanced Topics in Organic Chemistry (Lecture) 1 – 3 credits

This lecture course will build on the material covered in CHEM 210/220, and will cover in more detail the structural and physical properties of organic molecules and the reactions they undergo. Advanced chemical reactions will be covered, including complex skeletal rearrangements, multicomponent reactions, and the impacts of neighboring group participation. This advanced vocabulary of organic reactions will be used to learn the strategies behind the synthesis of complex organic molecules. Concepts of physical organic chemistry, such as reaction kinetics, isotope effects, linear free energy relationships and reaction mechanism determination will be covered. Structural determination using 1- and 2-D NMR, MS and other techniques will be discussed. Prerequisites: CHEM—220 or permission of instructor. (ATTR: ARTS)

CHEM—415. Instrumental Analysis (Laboratory) 2 credits

This course covers the theoretical and practical application of several advanced instrumental techniques. These techniques include a variety of spectroscopy methods, gas and liquid chromatography, mass spectrometry, and electrochemistry. Prerequisites: CHEM—210, CHEM—220 and CHEM—225. (ATTR: ARTS)

CHEM—418. Polymer Chemistry (Lecture) 3 credits

This course introduces the structural, physical, and chemical properties of polymeric macromolecules, the thermodynamic and kinetic properties that govern their various features. The synthesis and characterization of these molecules will be investigated. This course will emphasize many of the various techniques of regulating polymerization. Prerequisites: CHEM—210 and CHEM—310 concurrently. (ATTR: ARTS)

CHEM—425. Biochemical Mechanisms (Lecture) 3 credits

This course explores special topics in biochemistry including a close examination of biochemical reaction mechanisms and enzyme kinetics, and readings from the current biochemical literature. Prerequisites: CHEM—220; CHEM—310; completion or concurrent registration in BIOL—420 or CHEM—428; or consent of the instructor. (ATTR: ARTS, CFN)

CHEM—426. Senior Research (Laboratory) 1 credit

In this laboratory-based course, students independently develop and investigate a research project as a capstone experience. The investigation will be an extension of skills and techniques acquired in previous integrated laboratories. The course culminates in a written senior thesis and oral presentation. Four hours of laboratory each week. Prerequisites: CHEM—310 and CHEM—429 minimum grade of C-. Lab fee. (ATTR: ARTS)

CHEM—427. Capstone Independent Study 1 credit

Students perform an independent study on a chemistry topic of their choice. The project requires approval of the faculty mentor and may involve curriculum development or laboratory improvement. The course culminates in a written summary and oral presentation. Prerequisites: CHEM—310. (ATTR: ARTS)

CHEM—428. Physical Biochemistry (Lecture) 3 credits

This course covers the concepts of biochemistry. It focuses on the fundamental principles of physical and organic chemistry as they apply to the behavior of biological molecules. Three hours of lecture each week. Prerequisites: CHEM—220, CHEM—310 and 320 or consent of the instructor. (ATTR: ARTS, CFN)

CHEM—429. Advanced Biochemical Methods (Laboratory) 1 credit

This laboratory course gives students a hands-on introduction to the physical nature of biological macromolecules. Topics such as the thermodynamic impact on the structure of these macromolecules and the interactions between the macromolecules and small biological molecules will be investigated. This course will also emphasize many of the various techniques commonly encountered in a biochemistry laboratory such as Fluorescence and UV-Vis spectroscopies, biocalorimetry, and/or limited proteolysis. This course will also cover many of the common approaches to biochemical data analysis such as computer modeling and bioinformatics searches. Prerequisite: CHEM—220 and concurrency: CHEM—310 and CHEM—428 or BIOL—420. Lab fee. (ATTR: ARTS)

CHEM—430. Inorganic Synthesis 1 credit

This laboratory course introduces modern synthetic methods of inorganic chemistry and characterization of the synthesized compounds. The laboratory emphasizes the use of modern instrumental techniques including NMR, UV-visible and infrared spectroscopies, mass spectrometry, and calorimetric techniques as well as digital data collection and analysis. Four hours of laboratory each week. Prerequisite: CHEM—220 and CHEM—240 minimum grade C-. (ATTR: ARTS, KEM, NOEX)

CHEM—450. Synthesis and Characterization (Lecture and Laboratory) 2 credits

This course covers the synthesis, characterization and physical properties of organic compounds. Multistep synthesis of complex targets of current interest will be discussed, including aspects of chemo-, regio- and stereoselectivity. The course will also cover the characterization of organic molecules including NMR, mass spectroscopy, chromatography, thermal analysis, and other spectroscopic and physical methods. In the laboratory portion of the course, students will synthesize and characterize organic compounds and materials. Prerequisite: CHEM—220 minimum grade of D-.

CHEM—460. Advanced Topics in Biochemistry 1-3 credits

This course covers advanced topics in biochemistry, and focuses on issues and techniques which are at the forefront in the current literature. Topics can include spectroscopic and computational approaches to studying protein and nucleic acid structures; thermodynamics and kinetics of protein folding; the solution behavior of macromolecules; principles that govern molecular recognition; enzyme kinetics and mechanisms, lipids and lipoproteins, metalloprotein structure and functions, and techniques used to determine the three-dimensional structures of biological macromolecules. Prerequisites: CHEM—220 and BIOL—420 or CHEM—428 (may be taken concurrently In cases where a laboratory is offered, a lab fee will be assessed. (ATTR: ARTS)

CHEM—465. Forensic Analytical Instrumentation (Lecture and Laboratory) 2 credits

The purpose of this one semester undergraduate course is to introduce the student to the use of instrumental chemical techniques to the analyses of physical evidence materials of forensic import. Crime scene evidence gathering techniques will be discussed. The course includes lectures and has a critical portion laboratory session. At the conclusion of the course the successful student will understand the fundamental use and operation of certain types of chemical instrumentation and their applications to forensic analytical problems. The student will be able to choose the proper technique to successfully analyze a material and increase knowledge and understanding of the analytical approach and interpretation of quantitative data. Prerequisites: CHEM 120, CHEM 165 and CHEM 225 (120 and 225 may be taken concurrently) (ATTR: ARTS, FCSE)

CHEM—470. Advanced Environmental Chemistry (Lecture) 1 credit

Environmental Chemistry, is the study of natural and anthropogenic substances in the environment. Specifically, the course will cover the source, transport, reactions, effects and fate of chemicals in the atmosphere, hydrosphere and lithosphere. The course will also examine the distribution and interaction of chemical substances these three "spheres". Prerequisites: CHEM—120 or CHEM—170, and CHEM—220. (ATTR: ARTS)

CHEM—480. Computational Chemistry (Lecture) 3 credits

This introductory course in computational chemistry will discuss molecular mechanics, molecular dynamics, semi-empirical, and particularly *ab initio* computational approaches. Students will learn to run major computational chemistry software packages on state-of-the-art workstations (Spartan, Gaussian, GAMESS, VASP, TINKER). The selection of appropriate techniques for solving a variety of chemical problems will be emphasized. The focus of the course will also be on the analysis, visualization, and interpretation of results from calculations employing the various computational methods. A good undergraduate-level quantum chemistry background is expected. Prerequisites: MATH—120 and CHEM—320, or permission of the instructor. (ATTR: ARTS)

***CHEM—490. Chemistry Seminar No credit

Student papers on topics approved by the Chemistry faculty are presented and discussed. (ATTR: ARTS)

***CHEM—499. Independent Research 1 - 3 credits

Original laboratory and literature research under the direction of a faculty member. The course is arranged by mutual consent of student and faculty member. (ATTR: ARTS)

Computer Science Department

Chair: Dr. Eric Breimer, Assoc. Prof.

Prof.: Dr. Mary Anne Egan, Dr. Robin Flatland (sabb. Sp. '18), Mr. James R. Matthews,
Dr. Scott Vandenberg, Dr. Robert Yoder

Assoc. Prof.: Dr. Margaret S. Fryling (sabb. Sp. '18) , Dr. Darren Lim (sabb. F '17),
Dr. Sharon Small, Dr. James Teresco

Asst. Prof.: Dr. Jami Cotler, Dr. Ira Goldstein, Dr. Ting Liu

Instructor: Mr. Daniel DiTursi

Visiting Instructor: Mr. John Armitage, Ms. Pauline White

The Computer Science program at Siena features excellent facilities, full-time dedicated faculty and a wide variety of educational and career opportunities. The program is oriented towards “hands on” computing in a small class environment. Laboratory experiences are an essential component of many courses, so that students can work closely with our faculty. Beginning with the first course, students develop their abilities to solve problems, analyze, synthesize, think critically and communicate. Many courses require group projects and intensive teamwork.

Students interested in a Physics/Computer Science double major should choose the “Computational Physics Track” for the Physics major. This allows some Computer Science courses to count for both majors.

Requirements for the Major, B.S. in Computer Science (35.000 credits and 11 courses):

CSIS 120	Software Development		4 cr.
CSIS 210	Data Structures		3 cr.
CSIS 220	Assembly Lang and Comp Architecture		4 cr.
CSIS 225	Advanced Programing		3 cr.
CSIS 385	Design and Analysis of Algorithms		3 cr.
CSIS 410	Software Engineering I		3 cr.
CSIS 415	Software Engineering II		3 cr.
CSIS 110	Intro to Computer Science	AND	3 cr.

3 additional courses between CSIS 310 and 499 9 cr.

OR

4 additional CSIS electives between 310 and 499 12 cr.

Note: CSIS-251 and CSIS-351 may not be applied toward the required CSIS credits in Computer Science, however, CSIS-351 (Theory of Computation) may apply towards the required CSIS credits if a student is a double CS/Physics major taking the Computational Science track for the Physics major.

Auxiliary (15.000 credits)

MATH 110	Calculus I		4 cr.
MATH 120	Calculus II		4 cr.
MATH 250	Discrete Structures		4 cr.
MATH 350	Theory of Computation		3 cr.

Requirements for the Major, B.S. in Computer Science 3/2 Program (five-year program):

CSIS 120	Software Development		4 cr.
CSIS 210	Data Structures		3 cr.
CSIS 220	Assembly Lang and Comp Architecture		4 cr.
CSIS 225	Advanced Programing		3 cr.
CSIS 385	Design and Analysis of Algorithms		3 cr.
CSIS 410	Software Engineering I		3 cr.
CSIS 415	Software Engineering II		3 cr.
CSIS 110	Intro to Computer Science	AND	3 cr.
3 additional courses between CSIS 310 and 499			9 cr.

OR

4 additional CSIS electives between 310 and 499 12 cr.

Note: CSIS 251 and 351 may not be applied toward the required CSIS credits in Computer Science

Auxiliary (15.000 credits)

MATH 110	Calculus I	4 cr.
MATH 120	Calculus II	4 cr.
MATH 250	Discrete Structures	4 cr.
MATH 350	Theory of Computation	3 cr.

Students spend the first 3 years at Siena and the last 2 at one of the following cooperating institutions: Rensselaer Polytechnic Institute, Clarkson University, Manhattan College, or SUNY Binghamton.

Students earn a B.S. degree in Computer Science from Siena as well as a B.S. in Engineering from the chosen institution.

Requirements for the Computer Science Certificate (20.000 credits):

CSIS 110	Intro to Computer Science	3 cr.
CSIS 120	Software Development	4 cr.
CSIS 210	Data Structures	3 cr.
CSIS 220	Assembly Lang and Comp Archtcr	4 cr.
CSIS 225	Advanced Programming	3 cr.
CSIS 385	Design and Analysis of Algorithms	3 cr.

Auxiliary (12.000 credits)

MATH 110	Calculus I	4 cr.
MATH 120	Calculus II	4 cr.
MATH 250	Discrete Structures	4 cr.

Requirements for the Information Systems Certificate (28.000 credits):

CSIS 110	Intro to Computer Science	3 cr.
CSIS 114	Management Information Systems	3 cr.
CSIS 115	Database Design and App for Bus	3 cr.
CSIS 120	Software Development	4 cr.
CSIS 180	Web Design	3 r.
CSIS 210	Data Structures	3 cr.
MATH 371	Probability for Statistics	OR
QBUS 200	Business Statistics I	

Any two of the following: 6 cr.

CSIS 200	Topics in Computer Science (when appropriate)
CSIS 201	Topics Computer Science with Lab (when appropriate)
CSIS 220	Assembly Lang and Comp Archtcr
CSIS 225	Advanced Programming
CSIS 350	Database Management Systems
CSIS 400	Adv Topics in Computer Science (when appropriate)
CSIS 401	Adv Topic in Comp Science with Lab (when appropriate)
CSIS 410	Software Engineering I
CSIS 415	Software Engineering II

The Computer Science program is based on the suggested curriculum of the SIGCSE (Special Interest Group Computer Science Education) of the ACM (Association for Computing Machinery).

Facilities: The Computer Science Department has its own networked computing facility for laboratory work using Linux servers, Macs, Windows PCs and a variety of other hardware and software. There are 4 instructional labs and one open lab, with over 100 PCs managed by five servers. The department also has specialized equipment for robotics and computer architecture. Students also access Siena's campus-wide academic computing network. (See the "Information Technology Services" section of the catalog for a complete description of the Academic Computing facilities).

In addition to the College's standard software, students have access to several programming languages including Python, R, Java, Alice, C, C++, Scheme, Visual Basic, Prolog, Visual C++, PHP and Perl. Additional software available for use in courses and on student projects includes Oracle, SQL Server, MySQL, various Computer Aided Software Engineering (CASE) tools, SmartDraw and Mathematica.

Requirements for the Minor, Computer Science (18.000 credits):

CSIS 210	Data Structures		3 cr.
At least two additional courses at the CSIS 120 level or above			6 cr.
Computer Science Electives			9 cr.

Requirements for the Minor, Information Systems (18.000 credits):

CSIS 010	Introduction to Computer Applications	OR	
CSIS 011	Problem Solving with Spreadsheets	OR	
CSIS SSX	Spreadsheet Exam		0-3 cr.
CSIS 110	Intro to Computer Science		3 cr.
CSIS 114	Management Information Systems		3 cr.
CSIS 115	Database Design and App for Bus	OR	
CSIS 350	Database Management Systems		3 cr.
CSIS 180	Web Design	OR	
CSIS 390	Web Application Development		3 cr.
<i>Students must choose from the following courses to complete the 18 credit requirement:</i>			
CSIS 120	Software Development		4 cr.
MGMT 230	Project Management	OR	
ACCT 470	Accounting Systems and Data Processing		3 cr.
Any CSIS course(s) 200-level or above			1-6 cr.

Description of Courses

CSIS—SSX. Spreadsheet Exam 0 credits
 This course will be awarded to School of Business students passing the department's spreadsheet exam. No registration is required. This is one of three ways to satisfy the School of Business spreadsheet requirement; the others are completion of CSIS-010 or CSIS-011. Similarly, this serves as one possible prerequisite to certain CSIS and Business courses.

CSIS—010. Introduction to Computer Applications (2 hours lecture, 2 hours laboratory) 3 credits
 This course is an introduction to digital technology with the goal of laying a technical foundation upon which societal, professional, and personal issues related to computing technology can be understood and evaluated. Topics include hardware, software, operating systems and file management, data communications, security, digital representation, and networking. This course includes hands-on use of common business software tools emphasizing spreadsheet skills. Computer Science majors cannot apply this course to the major. Lab fee. (ATTR: ARTS, REC)

CSIS—011. Problem Solving with Spreadsheets 1 credit
 A lab-based introduction to problems, problem-solving, and the kinds of problems amenable to spreadsheet solutions. Provides a foundation for analyzing business and decision support problems using spreadsheet technology. Typical techniques studied may include absolute and relative addressing, macros, and conditionals. Students will be expected to apply their skills to various business scenarios and cases. May not be taken concurrently with or subsequent to CSIS-010. No prerequisites. Lab fee. (ATTR: ARTS, INRM)

CSIS—013. Computer Ethics 1 credit

This course is a survey of the ethical issues involved in computing. Topics studied will include data access, privacy, security, hacking, copyright and intellectual property issues, email, etc. The focus will be on identifying and analyzing ethical problems related to computing, as well as on ways to foster ethical decision-making in computing-centered situations. No prerequisites. (ATTR: ARTS)

CSIS—019. Computer Science Seminar 1 credit

This course will be offered with emphasis on different topics. The content will be designated by subtitle. Students may take the course more than once with different content. Potential topics include: History of Computing, Computing and Film, Information Presentation, etc. No prerequisites. (ATTR: ARTS)

CSIS—110. Introduction to Computer Science (2 hours lecture, 2 hours laboratory) 3 credits

This course is a broad introduction to a variety of fundamental topics in computer science through a contemporary theme such as robotics, the web, graphics, or gaming. Students will consider problems in the application area that can be solved with software. Using the theme of the course, students will be introduced to important areas of computer science including abstraction, computer organization, representation of information, history of computing, ethics, and the development and evaluation of algorithmic solutions using an appropriate programming environment. Themes may differ across sections. Lab fee. (ATTR: ARTS, CAQ, CDQ, INRM, REC, STVN)

CSIS—114. Management Information Systems (2 hours lecture, 2 hours laboratory) 3 credits

An introduction to fundamental management issues and information system principles involved in the analysis, design, and implementation of management information systems. Topics include business information system planning, technology architecture, database design, systems development, decision support systems, internal control, and computer security and disaster planning. Prerequisite: CSIS—010 or CSIS—011 or CSIS—SSX. Lab fee. (ATTR: ARTS)

CSIS—115. Database Design and Applications for Business 3 credits

This course introduces the concepts and practices of database design and use from a business perspective. Topics to be covered include data models (object, entity-relationship, and relational, for example), database design techniques, data dictionaries, query language (e.g. SQL, QBE), requirements analysis, legacy systems, databases for decision support, presentation techniques (forms, web pages, etc.) and basic information on database use in a business setting. The course includes hands-on use of a common business database management system to illustrate and emphasize the concepts. Prerequisite: CSIS—114. Computer use fee. (ATTR: ARTS)

CSIS—116. Survey of Information Technology (2 hours lecture, 2 hours laboratory) 3 credits

This course completes the Management Information Systems sequence. Students will continue their study of programming and databases, while gaining hands-on experience in the application of these skills in a management setting. Topics may include electronic commerce, decision support systems, executive information systems, and other current aspects of information technology. Prerequisites: either CSIS—115 or CSIS—350. Lab fee. (ATTR: ARTS)

CSIS—120. Software Development (3 hours lecture, 2 hours laboratory) 4 credits

An introduction to the object-oriented design paradigm with an emphasis on problem solving, algorithm development, and implementation of algorithms as computer programs in an object-oriented language. Other topics will include data representation, programming style, program testing and analysis of algorithms. Prerequisite: CSIS—110 with a grade of C- or better. Lab fee. (ATTR: ARTS, CAQ, CDQ, INRM)

CSIS—180. Web Design (2 hours lecture and 2 hours lab) 3 credits

Web Design is a hands-on course covering the history and development of the Internet, the Web and the core technologies used to implement modern websites. Students will design and implement websites using sematic markup languages, style sheets, and various software tools and applications. The course will include techniques for integrating a wide range of media formats, and design fundamentals needed in implementing effective, user-friendly websites. Prerequisite: None. Lab fee. (Same as MUMD—190) (ATTR: ARTS, MUMD)

CSIS—200. Topics in Computer Science 1-3 credits

This course will use an area of research, theory or practice to apply and extend basic principles of Computer Science. The course may be taken more than once with different topics. Possible topics include emerging programming languages, computer security, Human-Computer Interaction (HCI), diversity in CS and e-commerce. Prerequisite: permission of the instructor. (ATTR: ARTS, REC)

CSIS—201. Topics in Computer Science with Laboratory (2 hours lecture, 2 hours laboratory) 1-3 credits
This course will use an area of research, theory or practice to apply and extend basic principles of Computer Science. The course may be taken more than once with different topics. Possible topics include emerging programming languages, computer security, Human-Computer Interaction (HCI), diversity in CS, and e-commerce. The laboratory includes such things as hands-on exploration and experimentation with concepts, software tools, computer systems, or computer languages designed to confirm or extend the principles developed in lecture. Prerequisite: permission of the instructor. Laboratory fee. (ATTR: ARTS)

CSIS—210. Data Structures (2 hours lecture, 2 hours laboratory) 3 credits
This course continues the study of algorithm design and implementation with an emphasis on the use and implementation of data structures such as records, stacks, queues, linked lists, trees and graphs. Students will continue development of programming skills using modular and structured programming techniques. Prerequisite: CSIS—120 with a grade of C- or better. Lab fee. (ATTR: ARTS, COGC, INRM)

CSIS—220. Assembly Language and Computer Architecture (3 hours lecture, 2 hours laboratory) 4 credits
An introduction to assembly language programming using a specific assembly language (for example, ARM, Intel, or MIPS assembly language). Addressing techniques, internal computer components, machine language, subroutines, and parameter passing will be discussed. The course also covers topics in computer architecture including memory systems organization, interfacing and communication, functional organization, and multiprocessing architectures. Prerequisite: CSIS—120 with a C or better. Offered Fall Semester. Lab fee. (ATTR: ARTS, CFN, ISCE)

CSIS—225. Advanced Programming (2 hours lecture, 2 hours laboratory) 3 credits
This course continues previous work in using an object-oriented language in problem solving, and will consist of two parallel strands: the development of students' expertise in advanced features of the language, and the further exploration of software-engineering methodologies, such as UML. The two strands will be developed in the context of a large-scale team-based project. Offered Spring Semester. Prerequisite: CSIS—210. Lab fee. (ATTR: ARTS, ISCE)

CSIS—251. Discrete Structures (3 hours Lecture and 1.5 hour Laboratory) 4 credits
This course includes a study of mathematical structures most frequently encountered in Computer Science. Topics covered include sets, functions, mathematical induction, complexity analysis of algorithms, counting methods including probability, recurrence relations, graphs, trees, Boolean logic, and relations. Proofs using mathematical induction will be emphasized. Other proof techniques will be developed. Three hours of lecture and 80 minutes of lab each week. Lab fee. Prerequisites: MATH—120, CSIS—120. Offered Fall Semester. Cross-listed as MATH—250. (ATTR: ARTS)

CSIS—310. Numerical Methods 3 credits
Course objectives are to survey and develop numerical methods for solving scientific problems. Topics covered are roots of linear and nonlinear systems, numerical integration, approximation, interpolation, and ordinary differential equations. The course will emphasize efficient computer implementation of numerical algorithms. Prerequisites: CSIS—120 and MATH—120. Computer use fee. (ATTR: ARTS)

CSIS—320. Machine Learning (2 hours lecture, 2 hours laboratory) 3 credits
Machine learning is the subfield of artificial intelligence that uses data mining and statistical pattern recognition to "learn" algorithms to classify data, make predictions and solve data intense problems. Topics include: Supervised learning using regression, support vector machines, and neural networks; Unsupervised learning including clustering, dimensionality reduction, and recommender systems. Students will engage in hands-on activities to design and implement learning algorithms and systems for solving problems in areas such as robotics, text understanding, computer vision, medical informatics, database mining, and other areas. Prerequisites: CSIS—210, and MATH—110 or QBUS—110. Computer use fee. (ATTR: ARTS)

CSIS—330. Operating Systems (2 hours lecture, 2 hours laboratory) 3 credits
A study of processor, memory, device, and information management of contemporary computer systems. Emphasis is placed on the models and algorithms for multi-programming computer operating systems. Discussion will include classic problems such as the concurrency problems of mutual exclusion, deadlock and synchronization, and memory management concepts such as paging, working set and segmentation. The laboratory includes an introduction to the UNIX operating system, an introduction to programming in an appropriate systems language, such as C, and experiments designed to confirm or extend the principles developed in lecture. Prerequisite: CSIS—210 and CSIS—220. Lab fee. (ATTR: ARTS)

CSIS—340. Programming Languages 3 credits

A study of the organization and structure of modern programming language paradigms with an emphasis on semantic issues. Topics include formal language theory, syntax, semantics, calling protocols, and conventional and abstract data types. Prerequisite: CSIS—225. Computer use fee. (ATTR: ARTS)

CSIS—350. Database Management Systems 3 credits

A hands-on study of database management systems, based on the entity-relationship and relational data models. Topics will include logical and physical database design (including E/R modeling, normalization, memory management, and indexing), transactions/concurrency, query processing/optimization algorithms, and query languages (primarily relational algebra and SQL). Problems such as security and integrity of the data will also be discussed. Additional topics may include recovery, object-relational extensions, semistructured data and languages (e.g. XML/Xquery), application development (e.g. PL/SQL, PHP), or distributed systems. Prerequisite: CSIS—210. Computer use fee. (ATTR: ARTS, ISCE)

CSIS—351. Theory of Computation 3 credits

This course is a continuation of the study of mathematical structures most frequently encountered in Computer Science. Topics covered include deterministic and non-deterministic finite automata, regular, context-free and other languages, push-down automata, grammars, Turing machines, computational complexity, and in particular the P vs. NP problem. Prerequisites: MATH—250 or CSIS—251. Offered in Spring Semester. Cross-listed as MATH—350. (ATTR: ARTS, MHUL)

CSIS—355. Advanced Database 3 credits

This course covers emerging database technology from the standpoint of users, implementers, and administrators. The main topics are typically NoSQL, databases, data mining, and object databases, all with hands-on opportunities. Additional topics normally include several of the following: cloud databases, security, privacy, spatial databases, temporal data, XML and databases, crowd sourced databases, distributed databases, main memory databases, and other topics as indicated by student interest and technological trends. Prerequisite: CSIS—350 or instructor permission. Computer use fee. (ATTR: ARTS)

CSIS—365. Communications and Networks 3 credits

A survey of data communication and networks. Topics to be covered include techniques of transmission, protocols for line control, error detection and correction, communication software, various types of network systems, distributed applications, and performance evaluation. Prerequisite: CSIS—210 or CSIS—220. (ATTR: ARTS)

CSIS—375. Introduction to Artificial Intelligence 3 credits

Fundamental concepts used in machine implementation of processes which imitate human cognition. Topics include knowledge representation, logical deduction and problem solving, computational linguistics and machine learning. Students will complete several programming projects these areas. Current literature and research will be discussed. Pre- or co-requisite: CSIS—210. Computer use fee. (ATTR: ARTS)

CSIS—380. Computer Graphics (2 hours lecture and 2 hours laboratory) 3 credits

This course is an introduction to the mathematical and algorithmic principles of computer graphics as well as graphical applications programming. Topics covered include two and three-dimensional transformations, three-dimensional viewing, shading models, curves and surfaces, ray tracing, texture mapping, and algorithmic issues. In the laboratory these topics will be explored using graphics software tools and through programming using graphics libraries. Prerequisites: CSIS—210 and MATH—120. Lab fee. (ATTR: ARTS)

CSIS—385. Design and Analysis of Algorithms (2 hours lecture and 2 hours laboratory) 3 credits

This course will cover algorithm design techniques such as divide-and-conquer, dynamic programming, greedy approaches, and space-time tradeoffs. Example algorithms illustrating these design techniques will be introduced and include such things as balanced search trees, heaps, graph algorithms (depth-first and breadth-first searches, minimum spanning trees and shortest paths), selection, and sorting algorithms (radix sort, heap sort, merge sort and quick sort). Asymptotic notations and techniques for analyzing the running times of these algorithms will be covered. Limitations of algorithm power will be discussed, including an introduction to NP-complete problems. Prerequisites: CSIS—210 and MATH—250 or CSIS—251. Offered in spring semester. (ATTR: ARTS)

CSIS—390. Web Application Development (2 hours lecture and 2 hours laboratory) 3 credits

Web Application Development is a hands-on laboratory based course covering the design and implementation of dynamic web-based applications. Topics include server and application architecture, database-driven

development, interface design, content management, and security issues. Students will study the principles of extensibility, accessibility, and standardization and how they relate to the design of modern websites. Prerequisite: CSIS—210. Lab fee. (ATTR: ARTS)

CSIS—400. Advanced Topics in Computer Science 1-3 credits

This course will use an area of research, theory or practice to apply and extend basic principles of Computer Science. The course may be taken more than once with different topics. Possible topics include: advanced web programming, mobile app development, system administration, advanced AI, computer security, systems programming, cryptography, data warehousing. Prerequisite: permission of the instructor. (ATTR: ARTS)

CSIS—401. Advanced Topics in Computer Science with Lab 1-3 credits

This course will use an area of research, theory or practice to apply and extend basic principles of Computer Science. The course may be taken more than once with different topics. Possible topics include advanced AI, systems programming, computer security, data warehousing, or cryptography. The laboratory includes such things as hands-on exploration and experimentation with concepts, software tools, computer systems, or languages designed to confirm or extend the principles developed in lecture. Prerequisite: Permission of the instructor. Lab fee. (ATTR: ARTS)

CSIS—410. Software Engineering I (2 hours lecture, 2 hours laboratory) 3 credits

Presents principles of software engineering, including the software development life cycle (SDLC); i.e. the planning, creating, testing, and deploying an information system. This course introduces various software development project management models, with a focus on the Agile Scrum framework. Students work in teams with a client to design and develop a large-scale software application. Prerequisite: CSIS—225 and CSIS—390. Requires senior class standing or permission of instructor. Lab fee. (ATTR: ARTS, ISCE)

CSIS—415. Software Engineering II (2 hours lecture, 2 hours laboratory) 3 credits

This course extends the concepts introduced in Software Engineering I and introduces new topics important to software engineering profession, such as secure coding, ethics, intellectual property, copyright, cloud computing, and software maintenance. Students continue to work in teams to complete the software applications started in Software Engineering I. Prerequisite: CSIS—410. Computer use fee. Lab fee. (ATTR: ARTS, ISCE)

CSIS—499. Independent Study 1 - 3 credits

A qualified student, with the consent of the Head of the Computer Science Department, may pursue further research and study in some specific aspect of computer science. The student will be directed by a member of the Computer Science Department with whom he/she will hold periodic discussion. The student will be expected to comply with all School of Science guidelines concerning such projects. The number of credits to be awarded (1 - 3) will be determined by the Head of the Computer Science Department and the directing faculty member. Computer use fee. This course is arranged by mutual consent of the faculty member and student. (ATTR: ARTS)

Environmental Studies and Sciences Department

Chair: Dr. Jean C. Mangun, Prof.

Assoc. Prof.: Dr. Mary Beth Kolozsvary, Dr. Katherine Meierdiercks

Asst. Prof.: Dr. Daniel Bogan

Visiting Inst.: Ms. April Russell

The Department of Environmental Studies and Sciences presents an interdisciplinary plan of study leading either to a Bachelor of Arts in Environmental Studies or to a Bachelor of Science in Environmental Science. The common major core emphasizes the interdisciplinary nature of the environmental field and includes introductory courses in environmental science, sociology and ethics, plus intermediate courses in ecology, environmental policy and economics. Coursework unique to the Environmental Science concentrations include earth science, environmental chemistry, conservation biology, advanced geospatial analysis, as well as auxiliary coursework in calculus, chemistry or physics. A major in Environmental Studies or Environmental Science provides preparation for professional employment or future graduate study in fields related to environmental policy, education and interpretation, planning and management, and monitoring of ecological processes or earth systems.

All majors complete an off-campus internship experience for credit and are encouraged to explore independent research opportunities with a faculty mentor. Graduates of our program who have continued their studies at the

graduate level have pursued advanced degrees in fields including: environmental law, sustainability coordination, wildlife conservation and natural resources management, environmental public health, or energy systems engineering. Two interdisciplinary degree tracks are offered leading either to a B.A. in Environmental Studies or a B.S. in Environmental Science.

The Environmental Studies and Science majors combine well with a variety of other fields of study offered at the College, and many of our students also complete a minor in another discipline. Likewise, students of other majors may benefit from pursuing the ES minor (see below). For example, combining a major in Environmental Studies with a minor in Political Science prepares the future environmental lawyer. The minor in Environmental Studies is not open to students majoring in Environmental Science.

Combining a major in Environmental Science with a minor in Physics can make students eligible for the 4+1 Union Graduate College Engineering Program M.S. in Energy Systems (as listed in the Affiliation/Articulation Agreements section of the Catalog). All ES&S students work closely with their academic adviser to choose a plan of study appropriate to their post-graduation plans.

Requirements for the Major, B.A. in Environmental Studies (ENVA) (38.000 credits)

ENVA 100	Environmental Science		4 cr.
ENVA 120	Environmental Ethics		3 cr.
ENVA 140/SOCI 160	Environment and Society		3 cr.
ENVA 205	Environmental Field Techniques		2 cr.
ENVA 210	Environmental Research Methods		2 cr.
ENVA 250	Ecosystem Ecology		3 cr.
ENVA 460	GIS: Environmental Applications		3 cr.
ENVA 300/ECON 240	Environmental Economics		3 cr.
ENVA 390	Environmental Policy & Management		3 cr.

AND

Arts & Humanities Block: B.A. students must successfully complete 2 courses from the following: ENVA 305, ENVA 310 (POSC 360), ENVA 315, ENVA 320 (PHIL 320), ENVA 220 (ENGL 220), ENVA 230 (RELG 270), ENVA 240, ENVA 480. (NOTE: ENVA 305 can be taken multiple times with different content.) (At least one course must be at 300-level). 6 cr.

AND

Environmental Applications Block: B.A. students must successfully complete a minimum of 6 credits from the following: ENVA 400, ENVA 410, ENVA 420, ENVA 430, ENVA 440, ENVA 450, ENVA 499. (NOTE: ENVA 400, 410 & 499 can be taken multiple times with different content.) 6 cr.

ENVA Auxiliary (20.000 credits)

BIOL 110	General Biology I		4 cr.
BIOL 120	General Biology II		4 cr.
CHEM 025	Concepts of Environmental Chemistry	OR	
PHYS 055	Energy and Environment		3 cr.
ECON 101	Principles of Economics, Micro		3 cr.
ATDV 110	Statistics for Social Science	OR	
QBUS 200	Business Statistics I	OR	
MATH 060	Environmental Math I		3 or 4 cr.
Internship			3 cr.
ATDV 480 - Internship in Arts Division		OR	
SCDV 480 - Internship in Science			

Requirements for the Major, B.S. in Environmental Science (Conservation Science Concentration, ENVS) (39.000 credits)

ENVA 100 Environmental Science 4 cr.

AND

Two courses from the following:

6 cr.

ENVA 120 Environmental Ethics
ENVA 140/SOCI 160 Environment and Society
ENVA 305 Intermediate Topics in ES

AND

ENVA 205 Environmental Field Techniques 2 cr.
ENVA 210 Environmental Research Methods 2 cr.
ENVA 250 Ecosystem Ecology 3 cr.
ENVA 460 GIS: Environmental Applications 3 cr.
ENVA 290/CHEM 230 Environmental Chemistry 4 cr.
ENVA 450 Conservation Biology 3 cr.

ENVA 300/ECON 240 Environmental Economics **OR**
ENVA 390 Environmental Policy & Management 3 cr.

AND

ENVS students must complete 9 additional credits from the following: 9 cr.

ENVA 400 Advanced Topics in ES (e.g., Adv. GIS, Soil, Air, Water Analysis))
ENVA 400 Hydrology and Watershed Management
ENVA 410 Environmental Practicum
ENVA 420 Wildlife Conservation Forests
ENVA 430 The Adirondack Environment
ENVA 440 Environmental Interpretation
ENVA 480 Analysis of Soil, Air and Water
ENVA 499 Independent Study-ES

(NOTE: ENVA 400, 410 & 499 can be taken multiple times with different content

ENVS Auxiliary (31.000 credits)

BIOL 110 General Biology I 4 cr.
BIOL 120 General Biology II 4 cr.
CHEM 110 General Chemistry I 4 cr.
CHEM 120 General Chemistry II 4 cr.
CHEM 210 Organic Chemistry I 4 cr.
MATH 110 Calculus I 4 cr.
MATH 120 Calculus II 4 cr.
SCDV 480 Internship in Science 3 cr.

Requirements for the Major, B.S. in Environmental Science (Earth Systems Concentration, ENVE) (38.000 credits)

ENVA 100 Environmental Science 4 cr.

AND

Two courses from the following:

6 cr.

ENVA 120 Environmental Ethics
ENVA 140/SOCI 160 Environment and Society
ENVA 305 Intermediate Topics in ES

AND

ENVA 150	Earth Science		3 cr.
ENVA 205	Environmental Field Techniques		2 cr.
ENVA 210	Environmental Research Methods		2 cr.
ENVA 250	Ecosystems Ecology		3 cr.
ENVA 400	Soil, Air & Water Analysis		3 cr.
ENVA 460	GIS: Environmental Applications		3 cr.
ENVA 300/ECON 240	Environmental Economics	OR	3 cr.
ENVA 390	Environmental Policy & Management		

AND

ENVE Students must complete 9 additional credits from the following: 9 cr.

ENVA 410	Environmental Practicum		
ENVA 420	Wildlife Conservation Forests		
ENVA 430	The Adirondack Environment		
ENVA 440	Environmental Interpretation		
ENVA 450	Conservation Biology		
ENVA 480	Analysis of Soil, Air and Water		
ENVA 499	Independent Study-ESS		

(NOTE: ENVA 400, 410 & 499 can be taken multiple times with different content.)

ENVE Auxiliary (31.000 credits)

BIOL 110	General Biology I		4 cr.
BIOL 120	General Biology II		4 cr.
PHYS 130	General Physics I		4 cr.
PHYS 140	General Physics II		4 cr.
PHYS 220	Modern Physics		4 cr.
MATH 110	Calculus I		4 cr.
MATH 120	Calculus II		4 cr.
MATH 210	Calculus III	OR	
QBUS 200	Business Statistics		4 cr.
SCDV 480	Internship in Science		3 cr.

Requirements for the Minor, Environmental Studies (18.000 credits):

ENVA 100	Environmental Science		4 cr.
ENVA 120	Environmental Ethics		3 cr.
ENVA 140/SOCI 140	Environmental and Society		3 cr.

AND

Environmental Studies Electives (three additional ENVA courses) 8 cr.

Description of Courses

ENVA—010. Environmental Issues 1-3 credits

A facilitated discussion of topics and disciplines needed to frame environmental issues from multiple perspectives. Topics covered can vary between semesters but will include issues such as career preparation, sustainability and food production, resource conservation, water quality, air pollution, alternative energy and climate change. This course may be taken more than once with different content. (ATTR: ARTS)

ENVA—015. Principles of Ecology 3 credits

A study of the structure and function of nature with special emphasis on the impact of humans on natural systems. Topics included will be energy flow, nutrient cycles, population dynamics, and community ecology (ATTR: ARTS, CAN, CFN, STVN)

ENVA—020. Biological Diversity 3 credits

Why should we conserve biological diversity? An informed answer requires a basic understanding of the diversity of living organisms and the processes affecting this diversity. This class explores the classification of living organisms, their intrinsic value, and strategies for their conservation. Students will be asked to make connections between unsustainable human activities and species loss through critical discourse and collaborative projects that apply principles of modern conservation biology. (ATTR: ARTS, CAN, CFN, STVN)

ENVA—100. Environmental Science (3 hours lecture, 3 hours laboratory) 4 credits

This course is designed to introduce students to the basic scientific methods, tools and techniques needed to understand and analyze environmental issues. Topics covered include ecosystem structure and function, population dynamics and regulation, resources and resource management, and pollution. The laboratory will include projects dealing with current environmental issues, and will emphasize hypothesis testing, data collection and analysis, and oral and written presentations. Several field trips (including one weekend trip) will introduce students to local ecosystems and to local environmental issues. Lab fee. (ATTR: ARTS, CAN, CDN, STVN)

ENVA—120. Environmental Ethics 3 credits

This humanities-based course may draw upon material from philosophy, the sciences, literature, religious studies, history and the various arts to encourage broad reflection about our obligations to the environment. One aim is to introduce students to the basic ethical views (utilitarian, rights theory, socialist accounts) that inform environmental decision making. Another aim is to examine more recent work specific to the environment, such as essays on “deep ecology,” “the land ethic,” “environmental racism,” and “ecofeminism.” (ATTR: ARTS, CFN, FSES)

ENVA—140. Environment and Society 3 credits

An introduction to the social aspects of environmental problems and solutions. It examines the ways in which social institutions and lifestyles lead to environmental deterioration. It also looks at the consequences of environmental decay for human health and well-being. It examines efforts to preserve the natural environment through the Environmental Movement, drives to save particular ecosystems, and changes in thinking about environmental issues. (Same as SOCI—160.) (ATTR: ARTS)

ENVA—150. Earth Science 3 credits

The major themes of Earth Science are (1) the geographic location and global distribution of natural earth phenomena, (2) the origin and interpretation of these phenomena within the framework of a hierarchy of interacting physical systems and mechanisms, and (3) the impact of past and present human activities on the natural balance of these systems and mechanisms. Topics include climate and weather; atmospheric, surface, and subsurface water; soils and soil processes; natural vegetation; landforms; and diastrophic, fluvial and erosional processes. (ATTR: ARTS, CAN, CDN, STVN)

ENVA—205. Environmental Field Techniques 2 credits

Collecting accurate and representative field data is essential for many environmental investigations and research projects. In this course, students learn the theory of and techniques for field data collection, analysis and interpretation. Topics include making streamflow measurements, air quality sampling, conducting bird surveys, and using GPS. Students will design and conduct individual and group field projects. Prerequisite: ENVA —100. Lab Fee.(ATTR: ARTS)

ENVA—210. Environmental Research Methods 2 credits

In this course, methods to identify, analyze, and solve real-world environmental problems are introduced. Qualitative and quantitative interdisciplinary research tools are used to address a wide variety of environmental issues. Emphasis is placed on basic tools for environmental modeling, statistical analysis, scientific writing and the graphical presentation of data. Students will evaluate current environmental literature, develop practical research skills, and formulate approaches to scholarly research. Each student will complete an environmental research project and prepare a scholarly paper. Prerequisite: ENVA —100. (ATTR: ARTS, INRM)

ENVA—220. Literature and the Environment 3 credits

Beginning with Franciscan and philosophical perspectives on the natural world, this course moves to a consideration of the important role that wild nature – especially wilderness –has played in American culture, history, and art. Students are introduced to the long tradition of American nature writing, with an emphasis on Thoreau’s *Walden*. Particular attention is then given to contemporary multicultural voices among environmental writers. The course includes nonfiction prose, poetry, and fiction. (Same as ENGL—220.) (ATTR: ARTS, CFN, ENUL, LTPP)

ENVA—230. Religion and the Environment 3 credits

An examination of the stances and attitudes toward nature and the environment taken by several religious communities. The course will assist students to develop a constructive assessment of the theological and ethical contributions religious communities can make to environmental studies. (Same as RELG—270.) (ATTR: ARTS, CAR, CFN, RSET)

ENVA—240. Sustainable Tourism 3 credits

Sustainable tourism refers to a variety of culturally, economically and environmentally-friendly tourism experiences developed in collaboration with host communities. This course investigates the relationship between tourism and sustainable development both domestically and abroad. Lectures, discussion, and collaborative projects focus on sustainable best practices as means not only to support earned livelihood and resource protection for host communities, but also cultural retention and geographic integrity. (ATTR: ARTS, ILST, ENTR)

ENVA—250. Ecosystem Ecology (2 hours lecture, 4 hours laboratory) 3 credits

A study of the interrelations of organisms with each other and the environment. The lectures are equally divided between ecosystem ecology (energy and material flux, modeling), population ecology (population dynamics, competition, predation) and community ecology (structure, diversity, and succession). The lab will emphasize methodology through field trips to various local habitats; one weekend field trip is required. Prerequisites: BIOL-110 and BIOL-120 or BIOL-BIOL-140 or permission of the instructor. Not open to Biology majors. (May substitute BIOL-225 with permission of the department head.) Lab fee. (ATTR: ARTS, CFN)

ENVA—290. Environmental Chemistry (3 hours lecture, 4 hours laboratory) 4 credits

An introduction to the chemical processes that occur in water, air, and soil, and the effects of pollutants on these processes. Consumption of and reliance on limited natural resources will be studied, along with emerging alternative energy sources. The laboratory will emphasize environmental sample collection and preparation, and analysis of these samples by both wet chemical methods and instrumental analysis. Three hours of lecture and four hours of laboratory each week. Prerequisite: CHEM—120. (Same as CHEM—230.) Lab fee. (ATTR: ARTS)

ENVA—300. Environmental Economics 3 credits

An examination of how the natural environment is affected by the economic activities of society, and the physical and biological limitations imposed on the economy by the natural environment. Particular areas examined include the use of non-renewable natural resources, market failures, economic methods for analyzing pollution, cost/benefit analysis, the impact of population growth, and the values implicit in free market economies toward the natural environment. (Same as ECON—240.) (ATTR: ARTS)

ENVA—305 Intermediate Topics in Environmental Studies 3 credits

This course will explore, at an intermediate level, special topics in environmental studies not covered in regular course offerings. Topics will be announced during pre-registration in the preceding semester. This course may be taken more than once with different content. Prerequisites: Written permission of instructor. (ATTR: ARTS)

ENVA—310. Environmental Politics 3 credits

A study of environmental public policy: the major actors, institutions, and rules of the game that shape decision making. We will also engage in a dialogue about the underlying philosophies that drive resource utilization and environmental preservation. We will primarily look at the case of the United States, but some attention will be given to the international dimensions of the subject. Prerequisites: POSC—100 or Junior standing. (Same as POSC—360.) (ATTR: ARTS)

ENVA—315. Global Environmental Dilemmas 3 credits

This course studies how national, subnational and transnational actors create and actuate norms, principles, treaties and institutions for dealing with global environmental issues. Prerequisites: POSC—150 or junior standing. (ATTR: ARTS, ISP)

ENVA—320. Philosophy of Nature 3 credits

Examination of the idea of nature in historical and contemporary perspective, including theories of humanity's place in and transformation of the natural world. Some points of emphasis are the legacy of ancient cosmology, the development of the scientific view of nature, modern technology, and current ecological theory. Prerequisite: PHIL—101. (Same as PHIL—320.) (ATTR: ARTS, CAP,CFN)

ENVA—390. Environmental Policy and Management 3 credits

This course introduces the student to environmental policy processes and issues from economic, management, political science and sociological perspectives. It presents various methods for evaluating environmental quality and remedies; it looks at the various actors (federal/ state/local governments, communities, grassroots organizations, etc.) involved in environmental decision-making; and it examines the challenges of implementing environmental policy. Prerequisites: ENVA—100. (ATTR: ARTS)

ENVA—400. Advanced Topics in Environmental Studies and Sciences 1-3 credits

This course will explore, at an advanced level, special topics in Environmental Studies that are not part of the regular course offerings. Topics will be announced during pre-registration in the preceding semester. This course may be taken more than once with a different content. Prerequisites: ENVA—205, ENVA—210, and in most cases additional prerequisites that will vary depending on the topic given – see schedule of classes. (ATTR: ARTS)

ENVA—410. Environmental Practicum 1 credit

This class is a hands-on group project, directed by a faculty member, in some applied aspect of environmental studies or science. Examples of projects that could be included under this rubric are environmental restoration or wetlands creation projects, natural resource inventories, and other interpretive or conservation projects requiring group effort. Class will meet for one hour each week, and students are expected to spend a minimum of an additional three hours per week working on the project. May be taken more than once under different subtitles. Written permission of the instructor. (ATTR: ARTS)

ENVA—420. Wildlife Conservation in Forested Ecosystems 3 credits

An introduction to issues and applications of wildlife conservation strategies in forested ecosystems of the eastern United States. We examine the interrelationships between changing land-use patterns, forest management practices and wildlife population dynamics. Emphasis is placed on identification of common woodland birds and mammals as well as habitat management options for restoration and maintenance of biological diversity. At least one Saturday field trip is required. Prerequisites: ENVA—205 or ENVA—250 (BIOL 225). Offered Fall Semester. (ATTR: ARTS)

ENVA—430. The Adirondack Environment 3 credits

This interdisciplinary course introduces students to the geology, flora and fauna, history, literature, and environmental politics of New York's Adirondack Mountains. Following a historical survey, the course looks at contemporary environmental policy issues: acid rain, second home development, invasive species, over-use of popular areas, among others. The course includes either a weekend camping trip or several day trips (one of which may be service-oriented). Fee required. Prerequisites: Written permission of instructor. (ATTR: ARTS)

ENVA—440. Environmental Interpretation 3 credits

This course is designed to introduce students to the theory and practice of interpreting ecological and aesthetic values of the natural world to the visiting public. Emphasis is placed on interpretation of natural and cultural resources and informal education in an outdoor setting. Both individually and in groups, students will plan and present interpretive materials using written, oral, and visual methods of informative and persuasive communication. At least one Saturday field trip will be required. Written permission of the instructor. (ATTR: ARTS, REC)

ENVA—450. Conservation Biology (2 hours lecture, 4 hours laboratory) 3 credits

Modern conservation biology employs an integrative approach to biodiversity protection and management using principles and experiences from ecology, natural resource management, and the social sciences. Topics include biological diversity, valuation systems, adaptation and extinction, minimum viable populations, management of invasive and endangered species, and the design of nature preserves. Lab and field problem-solving exercises focus on population size, habitat fragmentation, and restoration ecology. Prerequisite: ENVA—250 OR BIOL—225. Lab fee. (ATTR: ARTS)

ENVA—460. GIS: Environmental Applications (Lecture and Laboratory) 3 credits

Geographic Information Systems (GIS) is a tool for viewing and analyzing spatial information. In this course, students will learn GIS fundamentals through applied projects that explore environmental issues. Topics include delineating watersheds and river networks, plotting GPS data, analyzing land-use trends over time, tracking weather systems, classifying remote sensing data, and mapping ecosystem patch structure and dynamics. Emphasis is placed on gaining hands-on experience using the ESRI ArcGIS and Google mapping environments. Students will complete an individual research project and share their research in a poster presentation. Two hours lecture and two hours laboratory. Prerequisite: ENVA—210 (may be taken concurrently) or Junior Standing. (ATTR: ARTS, REC)

ENVA—480. Analysis of Soil, Air and Water 3 credits

Collecting accurate and representative air, water, and soil field samples and analyzing those samples using modern instrumentation and techniques is an important component of many environmental investigations. In this course, students learn the theory of and techniques for field data collection, laboratory analysis, and

interpretation of air, water, and soil samples for environmental toxics. Topics include active (grab) and passive sampling and laboratory analysis of environmental contaminants using a variety of analytic techniques. Special attention will be paid to the analysis of toxics that are (1) directly produced by and/or impact students and their community and (2) contaminants of emerging concern (CECs), defined by the Environmental Protection Agency (EPA) as those where the, “risk to human health and the environment associated with their presence, frequency of occurrence, or source may not be known”. Prerequisite: ENVA—205 or permission of the instructor. (ATTR: ARTS)

ENVA—499. Independent Study 1 - 3 credits

Seniors in the Environmental Studies or Environmental Science track may pursue an independent research project in Environmental Studies or Sciences, under the supervision of a faculty member. Interested students should prepare a written research proposal and solicit the consent of an instructor to serve as mentor. Written permission of the supervising instructor and the Environmental Studies and Sciences Department Head is required. (ATTR: ARTS)

Mathematics Department

Chair: Dr. Edwin L. Rogers, Prof.

Prof.: Dr. Jon P. Bannon, Dr. Emelie A. Kenney

Assoc. Prof: Dr. Mohammad Javaheri (sabb. Sp. '18), Dr. Nikolai A. Krylov, Dr. John C. O'Neill

Visiting Asst. Prof.: Dr. Daniel Smitas

The Mathematics Department, following recommendations by the Committee on the Undergraduate Program in Mathematics of the Mathematical Association of America, offers its majors a basic grounding in calculus, modern algebra and real analysis. Students are introduced to the language of mathematics, learn to formulate and solve mathematical problems, and develop a facility with advanced mathematical technique and abstraction. A wide choice of elective courses allows students to pursue varied career goals. Our students are well prepared to choose graduate education, secondary teaching certification or to enter the work force directly.

For students interested in engineering, the Mathematics Department participates in a cooperative engineering program. For details, see the Special Programs section of the catalog, and the Cooperative Engineering Program requirements section below.

Students can earn college credit for either Calculus I (MATH—110) or Calculus I and Calculus II (MATH—120) by scoring a four or a five on the Advanced Placement (AP) examinations. Alternatively, students may earn credit for Calculus I by passing an examination given by the department each fall. Incoming students must contact the department by August 1 if they wish to sit for the examination.

Requirements for the Major, B.A. in Mathematics (37.000 credits):

MATH 110	Calculus I	4 cr.
MATH 120	Calculus II	4 cr.
MATH 191	Mathematical Problem Solving	1 cr.
MATH 210	Calculus III	4 cr.
MATH 230	Linear Algebra	3 cr.
MATH 301	Foundations of Mathematics	3 cr.
MATH 310	Intro to Modern Algebra	3 cr.
MATH 320	Mathematical Analysis	3 cr.
Mathematics Electives		
At least three classes between Math 325 and Math 499		12 cr.

Auxiliary (15.000 credits)

CSIS 110	Intro to Computer Science	3 cr.
CSIS 120	Software Development	4 cr.
PHYS 130	General Physics I	4 cr.
PHYS 140	General Physics II	4 cr.

Requirements for the Major, B.S. in Mathematics (37.000 credits):

MATH 110	Calculus I	4 cr.
MATH 120	Calculus II	4 cr.
MATH 191	Mathematical Problem Solving	1 cr.
MATH 210	Calculus III	4 cr.

MATH 230	Linear Algebra	3 cr.
MATH 301	Foundations of Mathematics	3 cr.
MATH 310	Intro to Modern Algebra	3 cr.
MATH 320	Mathematical Analysis	3 cr.
Mathematics Electives		
At least three classes between Math 325 and Math 499		12 cr.

Auxiliary (15.000 credits)

CSIS 110	Intro to Computer Science	3 cr.
CSIS 120	Software Development	4 cr.
PHYS 130	General Physics I	4 cr.
PHYS 140	General Physics II	4 cr.

Additionally, students must successfully complete the requirements for a minor or a major in biology, chemistry, physics, or computer science.

OR

Students must successfully complete 9 additional credits in biology, chemistry, physics, or computer science that count for the degree in that major. 9 cr.

Of these 9 credits, students must successfully complete 6 credits from one of the following sequences:

Physics 250, 310, 320, 410 or 440

OR

CHEM 310 and 320

OR

CSIS 310 and 385

Requirements for the Minor, Mathematics (20.000 credits):

MATH 110	Calculus I	4 cr.
MATH 120	Calculus II	4 cr.
Two courses from MATH 210 through MATH 470		6 cr.
Two courses from MATH 300-470		6 cr.

Education Certification: Siena mathematics majors seeking initial teaching certification (grades 7-12) must be approved by both the Mathematics Department and the Education Department. They must satisfy the requirements of one of the degrees listed above. Additionally, New York State requires that all prospective teachers study a language other than English at the college level. To be approved for the program the student must demonstrate strong communication skills, have a minimum Grade Point Average of 2.75 in mathematics courses and overall, and successfully complete the courses Euclidean and Non-Euclidean Geometry and Probability for Statistics. Students returning to or continuing their education at Siena College for purposes of certification must meet the requirements above. The professional teaching semester in mathematics is normally offered during the Fall Semester of each year.

Requirements for the Major, B.S. in Mathematics 3/2 Program (37.000 credits):

MATH 110	Calculus I	4 cr.
MATH 120	Calculus II	4 cr.
MATH 191	Mathematical Problem Solving	1 cr.
MATH 210	Calculus III	4 cr.
MATH 230	Linear Algebra	3 cr.
MATH 301	Foundations of Mathematics	3 cr.
MATH 310	Intro to Modern Algebra	3 cr.
MATH 320	Mathematical Analysis	3 cr.
Mathematics Electives -At least three classes between Math 325 and Math 499		12 cr.

Auxiliary (18.000 credits)

CSIS 110	Intro to Computer Science	3 cr.
CSIS 120	Software Development	4 cr.
CSIS 310	Numerical Methods	3 cr.
PHYS 130	General Physics I	4 cr.
PHYS 140	General Physics II	4 cr.

Additionally, students must successfully complete the requirements for a minor or a major in biology, chemistry, physics, or computer science.

OR

Students must successfully complete 9 additional credits in biology, chemistry, physics, or computer science that count for the degree in that major. 9 cr.
Of these 9 credits, students must successfully complete 6 credits from one of the following sequences:

Physics 250, 310, 320, 410 or 440
CHEM 310 and 320
CSIS 310 and 385

OR
OR

Description of Courses

MATH—010. Finite Mathematics 3 credits

Much of the mathematics which impinges on everyday life is of the finite variety. This course will introduce students to topics from Number Theory, Combinatorics, Complexity Theory, Difference Equations, Game Theory, Geometry, Graph Theory, Information Theory, Group Theory, Logic, Probability and Simple Descriptive Statistics, and Set Theory. Preference will be given to topics which convey to the student the importance of finite mathematics in modern society, with applications which are accessible to student experimentation. Primarily intended for Liberal Arts and Business majors. Not open to students who have successfully completed MATH—110 or higher. (ATTR: ARTS, CAQ, CDQ)

MATH—030. History of Mathematics 3 credits

This is a one semester course on selected topics in the history of mathematical ideas. Topics covered may include the notions of limit, infinity, area, parallelism, pi, transcendental numbers, number systems, mensuration, polynomials, cosmology, map coloring, logic, proof, abstraction, generalization, quadrature, trisection, or algebraic structure. The history of a given idea will be traced, and relevant problems will be presented. This course is intended for students in all schools of the College. Mathematics majors may take the class for elective credit but it does not count towards the requirements for the major. Offered spring semester. (ATTR: ARTS, CAQ, CDQ)

MATH—050. Preparation for Calculus 3 credits

A study of the background material needed for calculus with emphasis on functions. The course includes a study of relations, functions and graphs, polynomials, solving equations and inequalities, rational and radical functions, logarithmic and exponential functions, trigonometric functions both right angle and analytic, vectors, polar and parametric equations, and an introduction to the conic sections. Students must purchase an approved graphing calculator prior to beginning this course. (ATTR: ARTS)

MATH—060. Environmental Math I 3 credits

An introduction to some of the important issues in environmental science coupled with the basic mathematical ideas, tools, and techniques necessary to grapple with them. Scientific topics may include climate change, fuel economy, X-ray detectability of lung cancer cell clusters, biodiversity, fertility rates in developing countries, and spread of tropical diseases to new populations. To address these issues, measurement, parts per billion and other ratios, histograms, functions, and regression, as well as other mathematical topics, will be considered. Each mathematical idea will be illustrated immediately with an environmental application. No prerequisites. (ATTR: ARTS, CAQ)

MATH—070. Environmental Math II 3 credits

A continuation of MATH—060, Environmental Mathematics I. While still easily accessible to the typical student, slightly more advanced mathematical topics are introduced, including linear functions and regression, exponential and power functions, growth models, periodic behavior, chaotic behavior, and systems of difference equations. These ideas will be illustrated by scientific topics that may include, broadly, earthquake models, resource sustainability, pollution, energy, and hazardous household waste. Specific examples include meat consumption in China, thinning of glaciers, mercury in dental fillings and in compact 5 fluorescent light bulbs, and e-waste, such as leachable lead in discarded cathode ray tubes. Prerequisites: Successful completion of MATH—060 Environmental Mathematics I is required for students who have not taken non-core college mathematics courses. Those students who have taken such courses but have not taken MATH—060 may take MATH—070 by permission of the instructor. (ATTR: ARTS, CAQ)

MATH—100. Journey into Mathematics 3 credits

This is an intensive exploration of some great ideas of mathematics. We ask and try to answer questions like: "Can we count the real numbers?"; "What is the fourth dimension?"; "How can an infinitely long curve exist in a

finite space?”. This course is a challenging one, suitable for students who have an above average high school record. Prerequisites. Permission of the instructor required. (CORE: CAQ, HNRS)

MATH—105. Calculus IA (Lecture and Laboratory) 4 credits

Calculus IA and IIA provide life science students with a foundation in calculus based mathematics. Calculus IA covers the concepts of limit and derivative in depth and also includes the idea of the definite integral. These concepts provide tools to understand the behavior of the elementary algebraic and transcendental functions. There is a strong emphasis in this course on the applications of calculus to the biological sciences. (ATTR: ARTS, BIBS, BIBA, BIED, CAQ, CDQ, UNSC, UNSE)

MATH—115. Calculus IIA (Lecture and Laboratory) 4 credits

Calculus IA and IIA provide life science students with a foundation in calculus based mathematics. Calculus IA covers the concepts of limit and derivative in depth and also introduces the idea of the definite integral. These concepts provide tools to understand the behavior of the elementary algebraic and transcendental functions. There is a strong emphasis in this course on the applications of calculus to the biological sciences. Prerequisite: MATH—105 or MATH—110. (ATTR: ARTS, BIBS, BIBA, BIED, CAQ, CDQ, UNSC, UNSE)

MATH—110. Calculus I (Lecture and Laboratory) 4 credits

Courses MATH—110, 120 and 210 provide a foundation for all upper level mathematics courses. Main topics considered during the first semester: functions, limits, continuity, differentiation, the chain rule, antiderivatives, the definite integral, Fundamental Theorem of Calculus and trigonometric functions. Applications of all topics are emphasized. Three hours of lecture and one hour and twenty minutes of laboratory per week. Lab fee. Students must purchase an approved graphing calculator prior to beginning this course. (ATTR: ARTS, CAQ, CDQ)

MATH—120. Calculus II (Lecture and Laboratory) 4 credits

This course completes the calculus of elementary transcendental functions. It also includes techniques of integration, indeterminate forms, L'Hospital's Rule, improper integrals, and introduction to sequences, infinite series and power series. Students apply concepts to work, volume, arc length, and other physical phenomena. Three hours of lecture, and one hour and twenty minutes of laboratory each week. Lab fee. Prerequisite: MATH—110. Students must purchase an approved graphing calculator prior to beginning this course. (ATTR: ARTS, CAQ)

MATH—191. Mathematical Problem Solving 1 credit

An introduction to the art and craft of mathematical problem solving. Students interact in a seminar setting, discussing and solving interesting mathematical problems. Oral presentations of problems and solutions are a required part of this course. There are no prerequisites. (ATTR: ARTS)

MATH—210. Calculus III (Lecture and Laboratory) 4 credits

This course completes the Calculus sequence. The topics covered are vectors in the plane and in three dimensional space, functions of several variables, partial differentiation, the chain rules, multiple integration including cylindrical and spherical coordinate systems and the theorems of Green and Stokes. Students apply these concepts to physical applications. Three hours of lecture and two hours of lab each week. Lab fee. Prerequisite: MATH—120. (ATTR: ARTS)

MATH—230. Linear Algebra 3 credits

This course studies the elements of linear algebra with an emphasis on applications. Topics covered include matrices, systems of equations, finite dimensional vector spaces, linear transformations, eigenvalues and eigenvectors. Prerequisite: MATH—120. (ATTR: ARTS)

MATH—240, SCDV—240. Introduction to Computer Algebra 3 credits

An in-depth introduction to computer algebra system. The basic features of the computer algebra system, a study of the embedded functions, programming and graphics will be covered. Emphasis will be on the development of an understanding of the system and the capabilities that will allow for the successful application of this powerful tool to the solution of mathematical and scientific problems. Prerequisite: MATH—120. (ATTR: ARTS)

MATH—250. Discrete Structures (Lecture and Laboratory) 4 credits

This course includes a study of mathematical structures most frequently encountered in Computer Science. Topics covered include sets, functions, mathematical induction, complexity analysis of algorithms, counting methods including probability, recurrence relations, graphs, trees, Boolean logic, and relations. Proofs using

mathematical induction will be emphasized. Other proof techniques will be developed. Three hours of lecture and 80 minutes of lab each week. Lab fee. Prerequisites: MATH—120, CSIS—120. Offered in Fall Semester. (Same as CSIS—251) (ATTR: ARTS)

MATH—260. Differential Equations (2 hours of lecture, 2 hours laboratory) 3 credits

A study of differential equations using analytic, numerical and graphical techniques. Emphasis is placed on the formulation of models that result in a differential equation and the interpretation of solutions. Slope fields, graphs of solutions (analytic and numerical), vector fields, and solution curves in the phase plane will be used to gain a better understanding of differential equations. Computer based tools will be used to investigate the behavior of solutions both numerically and graphically. Prerequisite: Calculus III or Calculus II and permission of the instructor. Offered Spring Semester. (ATTR: ARTS, MHUL)

MATH—275. Introductory Statistics with Computation 3 credits

This introductory statistics course will provide an introduction to descriptive and inferential statistics with an emphasis on computation using current statistical software packages. Note: Requires laptop. Prerequisites: MATH—110 or QBUS—110 OR MATH—105, and MATH—115 or MATH—120 (may be taken concurrently). (ATTR: ARTS, CAQ, CDQ)

MATH—301. Foundations of Mathematics 3 credits

The course introduces students to the creative process of doing mathematics and the language and style of precise mathematical communication. We do this by investigating logic, set theory and mathematical proof. The main emphasis of the course is on composing logically correct mathematical arguments and communicating those arguments through oral and written presentations. Prerequisites: MATH—120. (ATTR: ARTS, MHUL)

MATH—310. Introduction to Modern Algebra 3 credits

This course is an introduction to the elementary theory of groups and rings, developed axiomatically. Other topics covered are subgroups and cosets, normal subgroups, factor groups, homomorphism and isomorphism of groups and rings, fundamental theorems for groups and rings. Prerequisites: MATH—230, MATH—301. Offered Fall Semester. (ATTR: ARTS, MHUL)

MATH—320. Mathematical Analysis 3 credits

Introduction to the fundamental concepts of mathematical analysis. A study of the real number systems, limits, sequences, series, convergence, uniform convergence, functions of one variable, continuity, differentiability, Riemann integration, functions of several variables, line, surface, and volume integrals. Prerequisite: MATH—210 and MATH—301. Offered Spring Semester. (ATTR: ARTS, MHUL)

MATH—330. Introduction to Applied Mathematics I 3 credits

In this course there will be applications of first and second order differential equations and linear algebra. The series solutions of the differential equations of Bessel and Legendre are studied in detail. Other topics include Fourier series and expansions as well as other series comprised of orthogonal functions. Applications of these expansions will be discussed as time allows. Prerequisite: MATH—260. (ATTR: ARTS, MHUL)

MATH—340. Introduction to Number Theory 3 credits

A discussion of the basic properties of the set of integers. Prime numbers and the Euclidean Algorithm. Number-theoretic functions, especially the Euler phi-function. Linear congruences and their applications to the solution of Diophantine Equations. Exponents and primitive roots. Quadratic residues and the Law of Quadratic Reciprocity. Prerequisite: MATH—301. Offered Spring Semester. (ATTR: ARTS, MHUL)

MATH—350. Theory of Computation 3 credits

This course is a continuation of the study of mathematical structures most frequently encountered in Computer Science. Topics covered include deterministic and non-deterministic finite automata, regular, context-free and other languages, push-down automata, grammars, Turing machines, computational complexity, and in particular the P vs. NP problem. Prerequisites: MATH—250 or CSIS—251. Offered in Spring Semester. (Same as CSIS—351. (ATTR: ARTS, MHUL)

MATH—360. Euclidean and Non-Euclidean Geometry 3 credits

An introduction to the techniques of Euclidean and Non-Euclidean geometry. Topics include: plane Euclidean geometry, geometric transformation groups, spherical geometry, the projective and hyperbolic planes. Prerequisites: MATH—210, MATH—301. Offered Fall Semester. (ATTR: ARTS, MHUL)

MATH—371. Probability for Statistics 3 credits

The course introduces mathematical probability to understand variation and variability. Methods of enumeration, conditional probability, independent events, and Bayes' Theorem are developed in a general environment. Among the continuous and discrete probability distributions derived and studied are the Bernoulli distribution and distributions based on it, the uniform, exponential, normal, Gamma and Chi Square distributions. The Central Limit Theorem leads to approximations for discrete distributions. Chebyshev's Inequality prepares the students for Inferential Statistics. Prerequisites: MATH—210 (may be taken concurrently). Offered Spring semester. (ATTR: ARTS, INRM, MHUL)

MATH—425. Differential Geometry 3 credits

This course is an introduction to the theory of curves and surfaces in the three-dimensional Euclidean space. Topics include curve arc length, curvature, torsion, the Frenet n-frame, the first and second fundamental forms of a surface, normal and principal curvatures, Gaussian and the mean curvatures, isometries of surfaces, and geodesic curves on a surface. Prerequisites: MATH—210. (ATTR: ARTS, MHUL)

MATH—430. Introduction to Applied Mathematics II 3 credits

Applications of Fourier series and expansions to the solution of the classical partial differential equations of mathematical physics and an introduction to complex variables. Prerequisite: MATH—330. Offered Spring Semester. (ATTR: ARTS, MHUL)

MATH—440. Complex Variables 3 credits

An introduction to the study of functions of a complex variable. Topics will include complex numbers, sequences, analytic functions, Cauchy-Riemann equations, complex integration, Laurent and Taylor Series, residue theorem, and conformal mapping. Prerequisite: MATH—210. Offered Fall Semester. (ATTR: ARTS, MHUL)

MATH—460. Topology 3 credits

This is a one semester introductory course in Topology. The topics covered include: Open and closed sets, topologies on general point sets, connectedness, compactness, continuity, product and quotient topologies, and metric spaces. Applications to other areas in mathematics (principally geometry and analysis) will be explored. Prerequisite MATH—210 or 301. Offered Spring Semester. (ATTR: ARTS, MHUL)

MATH—470. Mathematical Statistics 3 credits

Statistical tests for multivariable problems are developed and applied to real data sets. The computer and the SPSS package will be used. Prerequisite: MATH—210 and MATH—371. Offered Fall Semester. (ATTR: ARTS, INRM, MHUL)

MATH—480. Mathematics of Finance 3 credits

This course builds on the knowledge base contained in previous courses taken by actuarial students. The goal is to reinforce understanding of the fundamental concepts of financial mathematics, and how those concepts are applied in calculating present and accumulated values for various streams of cash flows as a basis for future use. Students will review basic financial instruments and expand their knowledge base to more modern financial analysis using yield curves, spot rates and immunization. Finally students will be introduced to the concept of risk management and understand how principles such as derivatives, forwards, futures, short and long positions, call and put options, spreads, collars, hedging, arbitrage, and swaps affect a firm's risk. (Same as QBUS—480) Prerequisite: FINC—301, FINC—315, and MATH—120, or permission of instructor. (ATTR: ARTS, BUS, MHUL)

MATH—490. Mathematics Seminar 1 credit

Consideration of a mathematical topic selected on the basis of faculty and student interest. Designed for students with good mathematical backgrounds. May be taken twice with different topic. Permission of instructor or department required for registration. Offered Spring Semester. (ATTR: ARTS, MHUL)

MATH—499. Independent Study in Mathematics 1 - 3 credits

Study or research on an advanced mathematics topic under the tutelage of a qualified faculty member. May be taken more than one semester. Prerequisites: All mathematics courses specified for a major in mathematics. Permission of faculty mentor and department head required for registration. (ATTR: ARTS, MHUL)

Nursing Department Baldwin Nursing Program

Director: Dr. Lisa Flack, Associate Professor
Asst. Prof.: Dr. Donnean Thrall, Dr. Jenna Thate

The Bachelor of Science degree program with a major in Nursing is designed to provide pathways for nursing students to further their nursing education and career. This upper-division nursing program is designed to prepare students as baccalaureate generalists in nursing practice within the context of a liberal arts education. Using a caring science curriculum, this unique program focuses on educating students to work with individuals, families, groups and communities from a health promotion perspective and an ethic of caring. This program also recognizes the knowledge and education that students bring from past experiences and provides an opportunity to integrate these professional experiences into their academic program. The program supports lifelong learning to promote excellence in academic and professional practice for both baccalaureate nursing students and faculty.

Siena's Nursing Department offers two tracks towards a Bachelor's of Science degree in Nursing:

RN to BS Nursing Program (RN-BS)

The RN to BS Nursing program (established 2016), students will earn a Bachelor of Science degree within two years of full-time study or three years of part-time study. Sixty-one semester hours of credit beyond the associate degree are required. (*The program length will vary for individuals as the conditions of transfer credits accepted and courses taken at the upper-division level create definite causes for variation.*) This program is for licensed registered nurses with associate degrees in nursing who are seeking to further their education for professional nursing practice.

The nursing program is fully approved and registered by the New York State Education Department, the New York State Board of Regents and the New York State Commissioner of Education, New York State Education Department. The program is a member of American Association of Colleges of Nursing (AACN) and is currently in the process of seeking accreditation through Commission on Collegiate Nursing Education (CCNE).

Dual Degree Nursing Program (DDNP)

The Dual Degree Nursing Program (established 2017) is a unique educational collaboration with the Belanger School of Nursing (local associate degree nursing program). Students enter as freshman and complete both an associate's and bachelor's degree over the four-year college experience. All courses taken at the Belanger School of Nursing will appear on the Siena transcript and the grades will be calculated in the Siena GPA.

Both tracks of the bachelor's of science degree in nursing have been approved by the New York State office of the Professions and accredited by the New York State Board of Regents. In addition, the Nursing Department is seeking its initial Commission on Collegiate Nursing Education (CCNE) accreditation with a site visit planned for September 2017. The program is a member of American Association of Colleges of Nursing (AACN).

Baccalaureate Nursing Program Outcomes

At the end of this program the Siena College Nursing graduate will:

1. Synthesize theoretical and empirical knowledge from liberal arts, nursing, scientific and humanistic disciplines to apply to professional nursing practice.
2. Provide human patient-centered caring for individuals, families, groups and communities in culturally diverse health-care settings across the lifespan.
3. Emerge as a leader in the evolving healthcare environment who influence healthcare policy and social justice efforts.
4. Effectively utilize informatics and technology to communicate with interdisciplinary teams and support strong clinical decision-making.
5. Partner with culturally diverse individuals, families and communities to deliver health promotion and disease prevention instruction.
6. Engage in effective communication with clients, communities, health care providers and inter-professional teams with mutual respect to improve health outcomes.
7. Critically evaluate and integrate evidence-based nursing practice (EBNP) in the delivery of optimal patient care.
8. Improve the quality and safety of healthcare systems through the knowledge and application of evidence-based nursing practice.

9. Demonstrate civic responsibility by engaging in professional and community service activities.
10. Explore and incorporate the moral, legal and ethical dimensions of nursing into the nursing profession based upon the NYS Nurse Practice Act and American Nurses' Association Standards of Care and Code of Ethics.

Admissions Process and Criteria for Admission:

RN to BS Nursing Program

Siena College will admit registered nurses who graduated from an Associate Degree nursing program who wish to pursue a baccalaureate degree. The RN student must meet all the general Siena College Transfer Admission requirements for admittance into the Baldwin Nursing Program. The requirements for admission of a transfer nursing student also include:

1. Official transcript(s) from an approved nursing program as well as official transcripts from all other colleges or universities attended.
2. Letter of recommendation from nursing faculty member or a nurse leader.
3. A cumulative GPA of 2.5 or higher and a minimum of a "C" in all Nursing courses (this will award the student 28 credits in nursing from their lower-division associate degree nursing coursework).
4. A cumulative GPA of 2.5 or higher and a minimum of a "C" in all other non-nursing courses will be accepted for prerequisite and elective transfer credits.
5. Candidates who have earned their Associate's Degree in Nursing must present their current registration of the professional nursing license in order for their application to be considered complete. The license and registration must be maintained throughout the program. *Candidates who anticipate earning their Associate Degree in Nursing in the term prior to matriculation at Siena College must present current registration of their professional nursing license prior to matriculation at Siena College.* (Offers of admission for this group of students will be conditional pending documentation of current registration prior to matriculation. Siena College reserves the right to permit initial registration pending receipt of current registration of the professional nursing license, however students who fail to present current documentation by census day (the third week of the semester) will be unable to register for subsequent terms and unable to participate in clinical work during any term of enrollment at Siena College. The license and registration must be maintained throughout the program. All admission offers are conditional until the Registrar receives the official final transcript(s) and the current registration of the professional nursing license.)

Dual Degree Nursing Program

1. A completed application including official high school transcript and counselor recommendation.
2. A GPA of 86 or above.
3. Test scores and a solid four-year curriculum. Four years of high school mathematics and four years of natural/physical sciences (including biology, chemistry and physics) OR successful completion of 19 academic units during high school and four years of mathematics (including pre-calculus) and four years of lab science (including biology, chemistry, and physics).
4. Once selected for Nursing Review, the following will be required:
 - a. Essay (500 words) to one of the following statements:
 - i. Discuss activities, interests and/or volunteer experiences you have had in school or community organizations that will enhance your experience as a nurse.
 - ii. Describe an experience in which you have had to persevere to succeed. Apply this experience to your potential for success in nursing school.
 - b. Letter of recommendation that addresses your potential as a future nurse. This can be from a faith community leader, teacher, or guidance counselor.

**Note: Admission into the Nursing Program does not guarantee completion of the program.*

Dual Degree Nursing Program Progression Criteria

1. Year One:
 - a. Students will enter the program and take Siena College's core coursework along with nursing prerequisites of Microbiology for Health Studies, General Biology, General Psychology and Sociology elective.
 - b. Per Siena College policy, the minimum of a "D" is required for the College core coursework. However, nursing students must maintain a CGPA of 2.75 and have earned a grade of "C" or better for all of the nursing prerequisites to continue in the program.

2. Years Two and Three:
 - a. To be academically qualified to progress to Belanger School of Nursing, for year two of the curriculum, the student must have earned a grade of “C” or better for all of the nursing prerequisites and have achieved a minimum CGPA of 2.75 or higher. Representatives from both Belanger School of Nursing and the Baldwin Nursing Program will meet to approve all students entering the second year of the program.
 - b. Students will be expected to take Anatomy and Physiology 1 and 2 and Developmental Psychology at Siena College during year two. A minimum of a grade of “C” or better will be required of these two courses.
 - c. During years two and three at Belanger School of Nursing, students are required to earn a minimum of a “C” in all nursing courses and obtain an overall CGPA of 2.0 or higher to graduate with an associate’s degree in Nursing. Upon graduation from the Belanger School of Nursing, students are eligible for the NCLEX RN.
3. Year Four:
 - a. To progress to year four at Siena College, students will have earned an associate degree in nursing from Belanger School of Nursing and have successfully passed the NCLEX RN licensure to move into the fall semester in year four. To graduate from Siena College with a bachelor’s degree in nursing, students are required to have a minimum of “C” in all nursing courses and a CGPA of 2.0 or higher.

Criteria for Retention in the Nursing Program:

In order to remain in the Nursing Program, students in both tracks must meet the following academic, behavioral, and ethical expectations:

- Academic Expectations: Nursing majors must attain a “C” or higher in all nursing courses to continue in the progression of the nursing sequence. Students will have one opportunity to repeat a course to meet this requirement with the permission of the Nursing Director. Students who fail to meet this criterion will not be able to continue in the nursing sequence. Students will be removed from the program prior to the start of the next term and be notified in writing of any such changes. Only one course in the nursing sequence may be repeated. The appeal process for non-attainment of these expectations is per Siena College Siena Life Handbook, and is further outlined in the Nursing Handbooks.
- Writing Proficiency: Demonstrated through written assignments in NURS courses.
- Behavioral Expectations: As outlined in the Nursing Student Professional Conduct Statement and the Nursing Program Handbooks.
- Ethical Expectations: As outlined in the Nursing Program Handbooks and the ANA Code of Ethics for Nurses.

Requirements for the Major, B.S. in Nursing (RN to BS) (28.000 credits):

NURS 300	Concepts of Professional Nursing for the Registered Nurse	3 cr.
NURS 305	Research to Promote Evidence Based Nursing Practice	3 cr.
NURS 310	Health Assessment and Promotion across the Lifespan	4 cr.
NURS 315	Pathophysiology and Pharmacology for Nursing Practice	4 cr.
NURS 320	Caring and Advocating for Older Adults	3 cr.
NURS 408	Health Policy in Nursing Practice	2 cr.
NURS 410	Population and Public Health Nursing Perspectives	6 cr.
NURS 415	Transformational Nursing Leadership	3 cr.

Auxiliary (6.000 credits):

MGMT 211	Management Principles	3 cr.
SCDV 220	Healthcare Informatics	3 cr.

RN to BS Nursing Program Clinical and Service Requirements:

Students will complete their post-licensure clinical (135 hours) during their senior year at Siena College. Students complete a 90-hour clinical in NURS- 410 in the community by arrangement of the department. Students will also complete a 45-hour clinical in NURS- 415 during their senior year in a setting mutually approved by the department and facility. Settings must be approved in advance by the Nursing Department. The Department does not assign a student to a unit in which he/she is an employee.

Approval for Entry into Clinical Settings: As students will work directly with clients in clinical settings, there are criteria that must be met prior to entry. The status of all students will be reviewed to ensure their readiness for admission into their clinical or service setting. Criteria for admission into clinical settings are outlined in detail in The RN to BS Nursing Program Handbook.

Requirements for the Major, B.S. in Nursing (Belanger/Baldwin Dual Degree) (65.000 credits):

Belanger School of Nursing (37.000 credits)

NURS 100	Concepts of Nursing	2 cr.
NURS 105	Foundations of Nursing Practice	5 cr.
NURS 110	Transitions of Care Across the Continuum	4 cr.
NURS 115	Introduction to Biophysical Concepts	6 cr.
NURS 200	Health Promotion and Family	5 cr.
NURS 205	Advanced Biophysical & Psychological Concepts	5 cr.
NURS 210	Transition in to Professional Practice	7 cr.
NURS 215	Professional Role Development	3 cr.

Baldwin Nursing Program (28.000 credits)

NURS 300	Concepts of Professional Nursing for the Registered Nurse	3 cr.
NURS 305	Research to Promote Evidence Based Nursing Practice	3 cr.
NURS 310	Health Assessment and Promotion across the Lifespan	4 cr.
NURS 315	Pathophysiology and Pharmacology for Nursing Practice	4 cr.
NURS 320	Caring and Advocating for Older Adults	3 cr.
NURS 408	Health Policy in Nursing Practice	2 cr.
NURS 410	Population and Public Health Nursing Perspectives	6 cr.
NURS 415	Transformational Nursing Leadership	3 cr.

Major Required Courses for the Nursing Major (31.000 credits):

BIOL 195	Microbiology for Health Studies	4 cr.
BIOL 140	General Biology for Social Science	4 cr.
MGMT 211	Management Principles	3 cr.
PSYC 100	General Psychology	3 cr.
PSYC 230	Lifespan Development	3 cr.
SCDV 210	Anatomy & Physiology I	4 cr.
SCDV 211	Anatomy & Physiology II	4 cr.
SCDV 220	Healthcare Informatics	3 cr.
SOCI 101	Sociological Perspective	OR
Other Elective		3 cr.

Description of Courses

Courses noted with an (+) are specialized professional courses, restricted to students who have been admitted into the Nursing Program.

Belanger School of Nursing Courses

+ NURS—100. Concepts of the Nursing Profession 2 credits

This course serves as the foundational course, introducing the nursing student to the philosophical and conceptual framework of the Ellis Medicine the Belanger School of Nursing. As the Continuum of Care conceptual framework is considered, concepts related to the integral nature of the nursing profession within the healthcare system will be discussed. Clinical reasoning and therapeutic communication skills will be developed through the application of the nursing process. The student will be introduced to Quality and Safety Education in Nursing (QSEN), teaching and professional/legal roles of the nurse.

+ NURS—105. Foundations of Nursing Practice 5 credits

This course is designed to introduce and further develop the concepts within the three domains (themes) of the individual, health and nursing. Emphasis is placed upon the concepts of: acid/base, cognition, comfort, digestion, elimination, fluid and electrolyte balance, health and wellness, infection, metabolism, medication safety, mobility, mood and affect, nutrition, oxygenation, perfusion, sensory, stress, thermoregulation and tissue integrity. This course will introduce the student to nursing skills and clinical practice within patient care settings while further developing clinical decision making.

+NURS—110. Transitions of Care across the Continuum 4 credits

This course introduces the learner to health care delivery systems, how health care policy impacts the delivery of care, the management of transitions of care across healthcare settings, and the care processes that support patient and families' management of health. Students will be expected to apply the care processes to the care of patients and families across the diversity of health care settings. Students will utilize evidence and information

technology to identify hospital and community resources to safely meet the needs of patients and families. The student will recognize the role of the nurse as a patient advocate within and across care settings

+NURS—115. Introduction to Biophysical and Psychological Concepts 6 credits

This course is designed to develop the concepts within four themes of the individual, health, nursing, and healthcare environment. This course will introduce the concepts of: cellular regulation, immunity, inflammation, self, sensory perception, addiction and development. This course will continue to build upon the concepts of: acid – base, comfort, digestion, elimination, fluid and electrolytes, metabolism, infection, stress and coping, oxygenation, perfusion, cognition, and mood and affect. Upon completion, students will be able to demonstrate the knowledge, and skills necessary to provide safe, quality, compassionate and individualized care to promote optimal level of functioning of the patient with a compromised health status

+NURS—200. Health Promotion and Family 5 credits

This course is designed to introduce and further develop the concepts within the three domains (themes) of individual, health and nursing. Emphasis is placed on the concepts of cellular regulation, health, wellness, immunity, infection, metabolism, nutrition, perfusion, sexuality, oxygenation, thermoregulation, addiction, development, family, grief and loss, mood and affect, reproduction, and teaching and learning. This course will develop health promotion strategies and consider health concerns across the life span. A focused clinical component will include inpatient and outpatient settings.

+NURS—205. Advanced Biophysical and Psychological Concepts 5 credits

This course is designed to further develop the concepts within four themes of the individual, health, nursing, and healthcare environment. This course will emphasize advancing concepts of the complex patient. The clinical component is focused on the development of a broader perspective of the nurse's role using evidence and sound judgment when implementing care to patients with changing situations. Upon completion, students will be able to demonstrate the knowledge, and skills necessary to provide safe, quality, and holistic care to patients with advanced alterations in health status. Students will function as a patient and family advocate providing teaching across various situations

+ NURS—210. Transitions into Professional Practice 7 credits

This course is designed to prepare the student for transition into the role of the registered professional nurse. The student will be prepared to work effectively within organizations by demonstrating core skills of leadership and management, managing resources responsibly, supporting safe quality care and utilizing evidence-based practice. The clinical component will focus on managing care for small groups of patients while collaborating with the multidisciplinary team, and will identify strategies to promote the safe transition of patients across care settings. The student will exhibit the ability to move effectively into the professional nurse role, abiding by the American Nurse Association Registered Nurse Scope of Practice and the New York State Nurse Practice Act.

+NURS—215. Owning your Practice 3 credits

The Program Student Learning Outcomes provide the framework for this course and units. This course will require the student to analyze and apply a variety of high order concepts as they relate to the students current and future practice. In this course students will continue to build upon the curriculum concepts by formulating a variety of responses, plans and scenarios demonstrating the student's ability to make sound, evidence - based clinical judgments. It is the expectation that the student will be also be able to interconnect concepts and evaluate how concepts work together to make holistic patient-centered plans of care. For this expectation, all of the concepts and exemplars will be included as part of the syllabus. Students will detail ways to improve their future clinical decisions and exact changes in culture and policy in their future roles as Registered Professional Nurses. Students will utilize reflective writing to differentiate between the roles and responsibilities of the student nurse and the novice nurse, demonstrating a full understanding of their current and futures roles and the expectations and responsibilities of those roles. Course objectives will be met through a variety of required assignments including online discussion forums, individual writing assignments and concept mapping.

+ NURS—300. Concepts of Professional Nursing Practice for the Registered Nurse 3 credits

This course serves as the foundation for the RN to BS program introducing the Registered Nurse student to the philosophical and theoretical framework of the Baldwin Nursing Program at Siena College. The caring science curriculum is introduced and concepts that contribute to the professional development of the nurse are reviewed. The student is introduced to the role(s) and role models of professional nursing within current social, economic, psychological, political and philosophical contexts. Historical and contemporary social forces that are key to the current roles of the professional nurse are explored. Principles of the professional nurses' roles and promotion of the profession are highlighted in this course. The student will begin the development of a professional ePortfolio for use throughout the curriculum and in professional practice settings. (ATTR: ARTS)

+ NURS—305. Research to Promote Evidence-Based Nursing Practice 3 credits

This course introduces the Registered Nurse to evidence-based practice and the process required to translate and integrate research into nursing practice. Emphasis is on critique and application of evidence affecting nurse-sensitive quality indicators. Published research studies are critically analyzed with regard to implications for clinical practice. Concepts reviewed include the scientific method, the research process, the use of informatics for a literature search, qualitative and quantitative research methodology, research ethics and quality improvement. QSEN competencies are integrated throughout this course. The student will discuss the links between quality improvement, evidence based practice and moving patient care to quality outcomes. Prerequisite: ATDV—110 (may be taken concurrently) and NURS—300. (ATTR: ARTS)

+ NURS—310. Health Assessment and Promotion across the Lifespan 4 credits

The knowledge and physical assessment skills necessary to complete a culturally competent advanced health history and physical examination are the focus of this course. The assessment of pre-existing health conditions, disease screening and subsequent health promotion strategies will be considered with physical, psychosocial, and cultural health concerns across the lifespan. The use of caring communication to explore patient life histories and experiences are integral to this patient-centered care utilizing the nursing process. Prerequisite: NURS—300. Lab Fee. (ATTR: ARTS)

+ NURS—315. Pathophysiology and Pharmacology for Nursing Practice 4 credits

This course provides an in-depth review of essential principles of pathophysiology necessary to anticipate, minimize and treat the complications associated with disease. Pharmacological concepts are examined by system and provide a foundation for understanding the pathophysiology of disease and the rationale for treatment. Pathophysiology focuses on underlying disease process and the body's amazing ability to compensate for these changes. A conceptual approach is used to illustrate pathophysiological concepts through carefully selected diagnoses. Through use of case studies, students are actively learning to recognize signs, symptoms and etiology of disease processes and use clinical decision making to connect pathophysiologic concepts to predict functional changes in the body and corresponding pharmacological interventions. Prerequisite: NURS—300. (ATTR: ARTS)

+ NURS—320. Caring and Advocating for the Older Adult 3 credits

This course provides an introduction to the specialty knowledge of gerontologic nursing. Concepts include physical and mental aging, increased complexity of care, utilization of healthcare resources and interactions between acute and chronic co-morbidities. Models of care to manage life transitions, physical changes, end of life care (palliative and hospice) and spirituality will be discussed. A focus on the role of the caring nurse in utilizing resources and programs to promote functional, physical and mental wellness in older adults is emphasized. A community service requirement with a geriatric community is the culminating component of this course pulling together concepts of both caring and advocating for this population. Prerequisite: NURS—310. (ATTR: ARTS)

+ NURS—408. Health Policy in Nursing Practice 2 credits

This course reviews the organizational and societal context in which health care is delivered in the United States. In response to the Institute of Medicine 2010 report on The Future of Nursing: Leading Change, Advancing Health, this course prepares nurses to lead change and advance health through knowledge of how public and private policies are made. The historical perspective is developed early in the semester and is built upon to explore existing health policy and delivery systems including legislation, the professional disciplines, organizations and health networks, forms of care delivery, consumer needs, and economics and funding. The course ends with a focus on future forms of delivery that would improve the health care status of the American population as a whole. Prerequisite: NURS—305 and NURS—310 and NURS—315 and NURS—320. (ATTR: ARTS)

+ NURS—410. Population and Public Health Nursing Perspectives 6 credits

This course focuses on the application of theoretical and empirical knowledge using the nursing process with a population or community group. Emphasis is placed on the community assessment process and the development of nursing strategies to assist multi-problem families while considering health on a continuum, throughout the lifespan. Focuses on transcultural nursing concepts, family systems theory, theories of adaptation and educational needs of various populations will be addressed. The clinical component is focused on the development of a broader perspective of the nurse's role in a variety of clinical and environmental settings. In addition, the nurse's role on the public health team and an understanding of the diverse health care needs of various cultural groups and the LBGQT population will be studied. Concepts include epidemiology, healthcare policy, economics, health disparity, cultural diversity, health literacy, disease prevention, health promotion, injury prevention and family care. (ATTR: ARTS)

+ NURS—415. Transformational Nursing Leadership 0-3 credits

This capstone course is designed to give the student the opportunity to assimilate the knowledge learned both in the nursing and the liberal arts/core curriculum within the context of the role of the professional baccalaureate-prepared nurse/nurse leader. The student engages in leadership assignments that reflect application, synthesis and evaluation of concepts and nursing issues that have been studied throughout the RN to BS program. The continuation of self-care strategies learned throughout the program are highlighted for ongoing promotion in nursing practice. This course provides knowledge and skills needed for implementation of leadership and management roles within a culturally diverse health care system. The nurse learns strategies to manage resources and people to create a compassionate caring work environment. Concepts focus on leadership and management theory, communication skills, health care finance, delegation, managing changes in the health care delivery system, legal issues, organizational culture, information technology, clinical and quality outcomes measurement and performance evaluation. Prerequisite: NURS—408 and NURS—410. (ATTR: ARTS, NOEX)

Physics and Astronomy Department

Chair: Dr. Rose A. Finn, Prof.

Prof.: Dr. Thomas P. Coohill, Dr. Graziano Vernizzi

Assoc. Prof.: Dr. John P. Cummings, Dr. Mark A. Rosenberry

Asst. Prof.: Dr. Matthew Bellis, Dr. Michele McColgan, Dr. John Moustakas

Visiting Instructor: Mr. John-Michael Caldaro, Ms. April Russell

The Department of Physics and Astronomy aims to develop in its students a comprehensive grasp of the principles of physics. The program emphasizes the concepts and techniques that have led to our present state of understanding of the physical universe.

The department offers a flexible and comprehensive program. Placed in the context of a liberal arts environment, the generality and applicability of Physics grant the major three broad options upon graduation. He or she is well prepared to pursue graduate study in Physics or an allied field, to embark immediately upon a professional career in science, or to enter one of the numerous careers which require or are enhanced by a broad knowledge of science in today's technological society.

Contributing to the flexibility of Siena's Physics program is the unstructured Advanced Laboratory sequence in which students pursue projects of their choosing with the guidance of faculty advisors. The equipment of all lab courses (optics, electronics, modern physics and experimental techniques) plus the research equipment of the department are available for these projects. Some example equipment includes: an X-ray diffractometer, 1.5m grating spectrometer, HeNe and diode lasers including a 20W diode array, spectrum analyzer, magnetometers, dual frequency GPS receivers, signal digitizer, nuclear counters, wavemeter (accurate to 0.001 nm), diffusion and turbo vacuum pumps, and computers that interface with digital multimeters through Labview.

Satisfactory performance in all laboratory work is necessary to obtain a passing grade in any Physics course accompanied by a laboratory experience.

A curriculum is offered for those interested in teaching, and the Department also offers a 3/2 program in affiliation with Clarkson University, Manhattan College, Rensselaer Polytechnic Institute, SUNY Binghamton and Western New England College leading to the B.S. in Physics and a B.E. in electrical, mechanical, civil, biomedical, aeronautical, nuclear, or materials engineering. Programs leading to a Master's degree are also available through Rensselaer.

Education Certification: For teacher certification in the secondary schools, students must complete 30 hours in Physics and cognate courses as outlined below. In addition, the student must achieve a minimum quality point average of 2.5 in Physics courses and 2.75 overall. Students successfully completing this program receive a B.S. in Physics and New York State Initial Certificate in Adolescence Education in the subject area of Physics.

Requirements for the Major, B.S. in Physics (12 courses):

PHYS 130	General Physics I	4 cr.
PHYS 140	General Physics II	4 cr.
PHYS 220	Modern Physics	4 cr.
PHYS 250	Computational Physics	3 cr.

PHYS 260	Thermal Physics		3 cr.
PHYS 370	Experimental Techniques	OR	2 cr.
PHYS 380	Observational Astronomy		3 cr.
PHYS 310 through PHYS 460			4 courses

Students must complete 4 additional advanced courses (numbered 300 and above). Courses must total at least 13 credits. At least two of the courses must come from the following:

PHYS 310	Mechanics I		
PHYS 410	Electromagnetic Theory I		
PHYS 440	Quantum Physics		13 cr.
PHYS 470	Advanced Laboratory I		1 cr.
PHYS 472	Advanced Laboratory II		1 cr.

Auxiliary (32.000 credits):

CHEM 110	General Chemistry 1		4 cr.
MATH 110	Calculus I		4 cr.
MATH 120	Calculus II		4 cr.
MATH 210	Calculus III		4 cr.
MATH 260	Differential Equations		3 cr.
MATH 330	Intro to Applied Mathematics I		3 cr.
MATH 230	Linear Algebra	OR	
MATH 430	Intro to Applied Mathematics II		3 cr.
SCDV 230	Electronic Instrumentation		4 cr.
CSIS 110 or higher			3 cr.

Transfer students from two-year colleges may receive credit for General Physics I, II, Modern Physics, Thermal Physics, Calculus I, II, III, Differential Equations, and General Chemistry I.

Pre-engineering students are advised to take General Physics I and II in the freshman year.

Requirements for the Major, B.S. in Physics 3/2 Program (12 courses):

PHYS 130	General Physics I		4 cr.
PHYS 140	General Physics II		4 cr.
PHYS 220	Modern Physics		4 cr.
PHYS 250	Computational Physics		3 cr.
PHYS 260	Thermal Physics		3 cr.
PHYS 370	Experimental Techniques	OR	2 cr.
PHYS 380	Observational Astronomy		3 cr.
PHYS 310 through PHYS 460			4 courses

Students must complete 4 additional advanced courses (numbered 300 and above). Courses must total at least 13 credits. At least two of the courses must come from the following:

PHYS 310	Mechanics I		
PHYS 410	Electromagnetic Theory I		
PHYS 440	Quantum Physics		13 cr.
PHYS 470	Advanced Laboratory I		1 cr.
PHYS 472	Advanced Laboratory II		1 cr.

Auxiliary (32.000 credits):

CHEM 110	General Chemistry 1		4 cr.
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MATH 110	Calculus I		4 cr.
MATH 120	Calculus II		4 cr.
MATH 210	Calculus III		4 cr.
MATH 330	Intro to Applied Mathematics I		3 cr.
MATH 260	Differential Equations		3 cr.
MATH 230	Linear Algebra	OR	
MATH 430	Intro to Applied Mathematics II		3 cr.
SCDV 230	Electronic Instrumentation		4 cr.
CSIS 110 or higher			3 cr.

Students spend the first 3 years at Siena and the last 2 at one of the following cooperating institutions: Rensselaer Polytechnic Institute, Clarkson University, Manhattan College, Western New England College or SUNY Binghamton.

Students earn a B.S. degree in Physics from Siena as well as a B.E. in Engineering from the chosen institution.

Requirements for the Major, B.S. in Physics (Biological Chemical Sciences Track):

PHYS 130	General Physics I		4 cr.
PHYS 140	General Physics II		4 cr.
PHYS 220	Modern Physics		4 cr.
PHYS 260	Thermal Physics		3 cr.
PHYS 250	Computational Physics		3 cr.
PHYS 370	Experimental Techniques		2 cr.

Students must complete 4 additional advanced courses (numbered 300 and above).

Courses must total at least 13 credits. At least two of the courses must come from the following:

PHYS 310	Mechanics I		
PHYS 410	Electromagnetic Theory I		
PHYS 440	Quantum Physics		13 cr.

Students must also conduct a research project, which will be completed in the following courses:

PHYS 470	Advanced Laboratory I		1 cr.
PHYS 472	Advanced Laboratory II		1 cr.

Auxiliary (35.000 credits)

CSIS 110 or higher			3 cr.
MATH 110	Calculus I		4 cr.
MATH 120	Calculus II		4 cr.
MATH 210	Calculus III		4 cr.
MATH 260	Differential Equations		3 cr.
CHEM 110	General Chemistry I		4 cr.
CHEM 120	General Chemistry II		4 cr.

Students must also take 9 additional credits in either biology or chemistry. 9 cr.

Biology, courses must be BIOL 220 or above.

Chemistry, courses must be CHEM 210 or above.

Designed for students majoring in Physics who wish to have a more substantial concentration in Biology and/or Chemistry.

Requirements for the Major, B.S. in Physics (Computational Physics Track): (12 Courses)

PHYS 130	General Physics I		4 cr.
PHYS 140	General Physics II		4 cr.
PHYS 220	Modern Physics		4 cr.
PHYS 250	Computational Physics		3 cr.
PHYS 260	Thermal Physics		3 cr.
PHYS 370	Experimental Techniques	OR	2 cr.
PHYS 380	Observational Astronomy		3 cr.
PHYS 310 through PHYS 460			4 courses

Students must complete 4 additional advanced courses (numbered 300 and above). Courses must total at least 13 credits. At least two of the courses must come from the following:

PHYS 310	Mechanics I		
PHYS 410	Electromagnetic Theory I		
PHYS 440	Quantum Physics		13 cr.
PHYS 470	Advanced Laboratory I		1 cr.
PHYS 472	Advanced Laboratory II		1 cr.

Auxiliary (32.000 credits)

MATH 110	Calculus I		4 cr.
MATH 120	Calculus II		4 cr.
MATH 210	Calculus III		4 cr.
MATH 260	Differential Equations		3 cr.
MATH 230	Linear Algebra	OR	
MATH 330	Intro to Applied Mathematics I		3 cr.
SCDV 230	Electronic Instrumentation		4 cr.
CSIS 110	Introduction to Computer Science	OR	
CSIS 120	Software Development		3 or 4 cr.
CSIS 210	Data Structures		3 cr.
CSIS 220	Assembly Language and Computer Architecture		4 cr.

Requirements for the Minor, Astronomy (19.000 credits)

This minor is intended for non-physics majors.

ASTR 010	Astronomy	OR	
ASTR 101	Introductory Astronomy for Scientists		3 cr.
PHYS 130 or 110	General Physics I or IA		4 cr.
PHYS 140 or 120	General Physics II or IIA		4 cr.
ASTR 390	Principles of Astrophysics I		3 cr.
ASTR 392	Principles of Astrophysics II		3 cr.
One elective:	ASTR 330, 332, 380 or 400		2 or 3 cr.

Requirement for the Minor, Astrophysics (18.000 credits)

This minor is designed for physics majors.

ASTR 101	Introductory Astronomy for Scientists		3 cr.
ASTR 330	Astrophysics Seminar I	OR	
ASTR 332	Astrophysics Seminar II		2 cr.
ASTR 380	Observational Astronomy		3 cr.
ASTR 390	Principles of Astrophysics I		3 cr.
ASTR 392	Principles of Astrophysics II		3 cr.
CHEM 110	General Chemistry 1		4 cr.

Requirements for the Minor, Physics (6 courses):

PHYS 130	General Physics I		4 cr.
PHYS 140	General Physics II		4 cr.
PHYS 210 through PHYS 440, or SCDV 230			4 courses

Both semesters of Advanced Laboratory (PHYS470 and PHYS472) may be substituted for one of the 4 courses above. However, it may only be taken with permission and must be taken for a total of two credit hours.

Description of Courses

Astronomy

ASTR—010. Astronomy 3 credits

This course serves as an introduction to the basic principles of Astronomy. The course is taught at a non-technical level, and is intended for both science and non-science majors. Topics include the history of Astronomy, the Solar System, stars, galaxies, the structure and evolution of the Universe, and the origin and evolution of life. Emphasis is placed on the quantitative and qualitative description of astronomical objects, the methods of scientific deduction, and the implications of astronomical knowledge. Opportunities for field and laboratory work will be provided. (ATTR: ARTS, CAN, CDN)

ASTR—101. Introductory Astronomy for Scientists 3 credits

This course serves as an introduction to the basic principles of Astronomy. The course is taught at a more technical level than ASTR 010, and is intended for science majors. Topics include the history of Astronomy, the Solar System, stars, galaxies, the structure and evolution of the Universe, and the origin and evolution of life. Emphasis is placed on the quantitative and qualitative description of astronomical objects, the methods of scientific deduction, and the implications of astronomical knowledge. Opportunities for field and laboratory work will be provided. (ATTR: ARTS, CDN)

ASTR—330. Astrophysics Seminar I 2 credits

The purpose of the Astrophysics Seminar I is to expose students to breadth of current research in the field of astronomy and astrophysics. Students will view weekly seminars from world-class science institutes and then discuss the results in the context of previous course work in astronomy. This course may be taken more than once. Prerequisites: ASTR—101, ASTR—390 or ASTR—392. (ATTR: ARTS)

ASTR—332. Astrophysics Seminar II 2 credits

The purpose of the Astrophysics Seminar II is to expose students to breadth of current research in the field of astronomy and astrophysics. Students will view weekly seminars from world-class science institutes and then discuss the results in the context of previous course work in astronomy. This course may be taken more than once. Prerequisites: ASTR—101, ASTR—390 or ASTR—392. (ATTR: ARTS)

ASTR—380. Observational Astronomy (Lecture and Laboratory) 3 credits

This course provides a hands-on, project-based introduction to the tools and techniques used to acquire and analyze astronomical data. It is intended primarily for Astrophysics majors. Topics covered include: introduction to the techniques of gathering and analyzing astronomical data; telescope design and optics; instrumentation for imaging, photometry, and spectroscopy; astronomical detectors; image processing and data visualization; error analysis and curve fitting; data analysis and astrophysical interpretation. Two hours lecture and two hours laboratory. Permission of instructor required. Lab fee. (Same as PHYS—380) (ATTR: ARTS, PHYS)

ASTR—390. Principles of Astrophysics I 3 credits

Astrophysics is the application of physical principles to astronomical systems. Astrophysicists use their knowledge of physics to explain observations of astronomical phenomena, drawing upon a wide range of subjects in physics, including classical mechanics, quantum and atomic physics, thermodynamics, electromagnetism, chemistry, and nuclear physics, among others. In this two semester introduction to astrophysics students will learn how to use a variety of physical principles to understand the characteristics and evolution of planets, stars, galaxies and the Universe as a whole. In this course the thematic focus will be on gravity, which is the dominant force in many astronomical systems. Among the topics we will explore include planetary and binary star systems, supermassive black holes, spiral and elliptical galaxies, dark matter, gravitational lensing, and geometry and cosmic expansion history of the Universe. Prerequisite: PHYS—120 or PHYS—140. (Same as PHYS—390) (ATTR: ARTS)

ASTR—392. Principles of Astrophysics II 3 credits

Astrophysics is the application of physical principles to astronomical systems. Astrophysicists use their knowledge of physics to explain observations of astronomical phenomena, drawing upon a wide range of subjects in physics, including classical mechanics, quantum and atomic physics, thermodynamics, electromagnetism, chemistry, and nuclear physics, among others. In this two semester introduction to astrophysics students will learn how to use a variety of physical principles to understand the characteristics and evolution of planets, stars, galaxies and the Universe as a whole. In this course the thematic focus will be on using stellar physics to understand the constituents (stars, planets, heavy elements) and physical evolution of the cosmos. Among the topics we will explore planetary and stellar atmospheres, stellar structure and evolution, degenerate stars (white dwarfs and neutron stars), star, galaxy, and planet formation, and the origin of

primordial elements synthesized moments after the Big Bang). Prerequisite: PHYS—120 or PHYS—140. (Same as PHYS—392) (ATTR: ARTS)

ASTR—400. Topics in Astrophysics 3 credits

Study of a topic in Astronomy or Astrophysics selected on the basis of faculty and student interest. Prerequisites depend on the topic being offered and course registration requires permission of the instructor. May be taken more than once with different topics. Prerequisites: PHYS—130 and PHYS—140. (ATTR: ARTS)

Description of Courses

Physics

PHYS—010. Topics in the Physical Sciences 3 credits

A course of lectures and demonstrations on the principles and laws governing the physical world. It may be offered with emphasis on a specific topic, and content will be indicated by subtitle. This course is intended to fulfill part of the School of Science Core requirement for School of Liberal Arts and School of Business majors and is not open to Physics majors. It may be taken more than once with different content. Examples of special topics include:

Structures

A course about the nature of properties of structures, from the pyramids to modern skyscrapers. The course begins with a brief examination of the nature of materials. This is followed by a systematic study of a variety of different structures, including pyramids, houses, bridges, and cathedrals. Students will be expected to participate in in-class projects. (ATTR: ARTS, CAN, CDN, STVN)

Introduction to Nanoscience

This course introduces students to the relatively recent and emerging field of nanoscience and nanotechnology. It is a highly multidisciplinary field, where physics, chemistry, biology, materials science meet at the nanometer scale. The course begins from a non-technical level and is designed for both science and non-science majors. It covers topics ranging from nanomeasurement techniques, nanofabrication, nanostructured materials, self-assembling nanostructures, applications to engineering and to biotechnology. Emphasis is placed discussing the impact of nanotechnologies in a globalized world and its possible benefits (environmental safety, energy production, manufacturing, drug design, information technology) versus its potential risks (health issues, environmental pollution, societal issues, ethical issues). (ATTR: ARTS, CFN, STVN)

In addition, the following topics courses are taught::

Light, Color and Lasers (ATTR: ARTS, CAN, STVN)

Atmosphere and Oceans (ATTR: ARTS, CAN, STVN)

Physics: An Historical Approach (ATTR: ARTS, CAN, STVN)

Physics of Music (ATTR: ARTS, CFN, STVN)

PHYS—015. Quarks, Quanta and Quasars 3 credits

An introduction to quantum mechanics, particle physics, and cosmology. Students will be introduced to the theories that describe Nature at the very smallest and very largest scales. (ATTR: ARTS, PHYS, CDN)

PHYS—040. Non-core Topics in the Physical Sciences 3 credits

A topics course similar to PHYS—010, except the topics offered have not been approved to fulfill the School of Science Core requirement for School of Liberal Arts and School of Business students. Students may take this course more than once with different content. Not open to Physics majors. Does not count towards College Core.

PHYS—055. Energy and Environment 3 credits

The significant impact of society's energy needs on the environment will be examined. The course will cover our society's different sources of energy (fossil fuel, nuclear, hydropower, solar, etc), discussing how each is obtained, and giving their advantages and limitations. The use of energy in the future will also be explored, as some present sources run out and new ones become practical. The basis of climate will be developed, and students will learn how changes to Earth's atmosphere and oceans affect human civilizations and natural ecosystems. Each week one or more group or demonstration experiments will be performed, to illustrate concepts. (ATTR: ARTS, CAN, CFN, STVN)

PHYS—080. Conceptual Physics (Lecture) 3 credits

This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Practical and everyday aspects of physics that will be discussed include the mechanics of sports, electricity, optics, and how the eye and camera work etc. Additional topics may include atoms, quantum theory,

the laser, the theory of relativity and cosmology (just what is a black hole?). Requires one year of high school algebra. (ATTR: ARTS, CAN, STVN)

PHYS—110. General Physics IA (Lecture and Laboratory) 4 credits

An introductory course in physics for students of the life sciences emphasizing kinematics, Newtonian dynamics and energy. Also includes rotational motion, fluids, heat and thermodynamics. Applications to biological systems are discussed. Three hours of lectures and one three-hour laboratory period a week. Lab fee. (ATTR: ARTS, CAN, CDN, STVN)

PHYS—120. General Physics IIA (Lecture and Laboratory) 4 credits

A continuation of PHYS—110 for life science students, treating electricity and magnetism, electric circuits, waves and optics, and elementary topics in atomic and nuclear physics. Includes applications to biological systems. Three hours of lectures and one three-hour laboratory period a week. Prerequisite: PHYS—110. Lab fee. (ATTR: ARTS, CAN)

PHYS—130. General Physics I (Lecture and Laboratory) 4 credits

The general physics sequence provides an introduction to those basic concepts of physics that form the foundation of all the natural sciences. The first course is mainly an introduction to classical mechanics where the fundamental laws of Newtonian mechanics are applied to a variety of simple systems. Some elementary thermodynamics is also included. Throughout the course, the conservation laws serve as unifying physical principles. Mathematics, a powerful tool in the understanding of natural phenomena, assumes its essential role. Computers are used in the laboratories. Three hours of lecture and one three-hour laboratory period a week for one semester. Prerequisite or corequisite: MATH—110. Lab fee. (ATTR: ARTS, CAN, CDN, STVN)

PHYS—132. General Physics Review 0 credit

Provides review and amplification of selected general physics topics together with techniques and practice in physics problem solving. To be taken concurrently with General Physics I (PHYS—130). Required for Physics majors (including Physics majors in the 3/2 Program), open to all students enrolled in PHYS—110 or PHYS—130. One hour per week. (ATTR: ARTS)

PHYS—140. General Physics II (Lecture and Laboratory) 4 credits

A continuation of the general physics sequence. Fundamentals of electricity and magnetism, dc and ac circuits, electromagnetic waves, geometric optics of mirrors and lenses, interference and diffraction phenomena in light. Three hours of lecture and one three-hour laboratory period a week for one semester. Prerequisite: PHYS—130. Prerequisite or corequisite: MATH—120. Lab fee. (ATTR: ARTS, CAN)

PHYS—142. General Physics II Review 0 credits

Provides review and amplification of selected general physics topics together with techniques and practice in physics problem solving. To be taken concurrently with General Physics II (PHYS—140). Required for all Physics majors (including Physics majors in the 3/2 program), open to all students enrolled in PHYS—120 or PHYS—140. One hour per week.

PHYS—200. Intermediate Topics in Physics and Astronomy 1-3 credits

This course will cover a selected topic at an intermediate level. Registrations requires permission of instructor. This course may be taken multiple times with different topics. Note that this course does not count for completion of a physics major. Prerequisites: Permission of Instructor. (ATTR: ARTS)

PHYS—220. Modern Physics (Lecture and Laboratory) 4 credits

An introduction to modern physics. Relativistic dynamics, particle aspects of electromagnetic radiation, the wave aspects of material particles, the many-electron atom and nuclear structure are considered. The laboratory includes many of the classical experiments which led to the discovery of quantum mechanics. Three hours of lecture and one three-hour laboratory period a week for one semester. Prerequisites: MATH—120; and PHYS—120 or 140. Lab fee. (ATTR: ARTS, CFN)

PHYS—250. Introduction to Computational Physics (Lecture and Laboratory) 3 credit

Methods of computer simulation and its diverse applications are introduced. The course is project-oriented; projects include the motion of massive and charged particles, chaotic systems, and random systems. Methods include the numerical solution of differential equations, fast Fourier transforms, and Monte Carlo techniques. Two hours of lecture and three hours of laboratory a week for one semester. Prerequisites: PHYS—110 or PHYS—130; MATH—120, and CSIS—110. Lab fee.

PHYS—260. Thermal Physics 3 credits

A study of thermal phenomena from a macroscopic point of view, including the development and applications of the first two laws of thermodynamics, entropy, thermodynamic potentials, and equilibrium phenomena. The concept of distribution functions is developed. This is followed by a study of classical statistical mechanics and the statistics of Bose-Einstein and Fermi-Dirac. Three hours of lecture a week for one semester. Prerequisites: MATH—210, PHYS—110 or 130. (ATTR: ARTS, PHYS)

*PHYS—310. Mechanics I (Lecture and Laboratory) 4 credits

Newtonian mechanics of particles and systems of particles, including rigid bodies. Topics include vector analysis, potential theory, central forces, the two-body problem, collisions, oscillatory phenomena, moving reference frames. Lagrangian and Hamiltonian formulation of classical mechanics. Theory of small vibrations. Four hours of lecture a week for one semester. Prerequisites: PHYS—110 or 130. Prerequisite or corequisite: MATH—260. (ATTR: ARTS, PHYS)

***PHYS—320. Mechanics II 2 credits

A continuation of PHYS—310. Two hours of lecture a week for one semester. Prerequisite: PHYS—310. (ATTR: ARTS, PHYS)

PHYS—350. Simulation & Modeling (Lecture and Laboratory) 3 credits

A study of computer simulation and modeling methods with application to physical systems. Topics will be selected from: the two-body problem, linear and nonlinear systems, chaotic motion, random processes, normal modes and waves, numerical integration and Monte Carlo methods, random walks, percolation, fractals, and transforms. Additional topics may be included. Two hours of lecture and three hours of laboratory a week for one semester. Prerequisite: PHYS—250 and CSIS—120, or permission of instructor. Lab fee. (ATTR: ARTS)

*PHYS—370. Laboratory Techniques (Lecture and Laboratory) 2 credits

An introduction to the tools and methods of active research. Topics will include such practical concerns as computer interfacing, control circuits, basic vacuum system design, and proper handling of diode lasers. These skills will then be applied to investigate techniques such as Faraday rotation, interferometry, and electron beam steering. One hour of lecture and four hours of laboratory each week for one semester. Prerequisites: PHYS—220, SCDV—230. Lab fee.

PHYS—380. Observational Astronomy (Lecture and Laboratory) 3 credits

This course provides a hands-on, project-based introduction to the tools and techniques used to acquire and analyze astronomical data. It is intended primarily for Astrophysics majors. Topics covered include: introduction to the techniques of gathering and analyzing astronomical data; telescope design and optics; instrumentation for imaging, photometry, and spectroscopy; astronomical detectors; image processing and data visualization; error analysis and curve fitting; data analysis and astrophysical interpretation. Two hours lecture and two hours laboratory. Permission of instructor required. Lab fee. (Same as ASTR—380) (ATTR: ARTS, PHYS)

PHYS—390. Principles of Astrophysics I 3 credits

Astrophysics is the application of physical principles to astronomical systems. Astrophysicists use their knowledge of physics to explain observations of astronomical phenomena, drawing upon a wide range of subjects in physics, including classical mechanics, quantum and atomic physics, thermodynamics, electromagnetism, chemistry, and nuclear physics, among others. In this two semester introduction to astrophysics students will learn how to use a variety of physical principles to understand the characteristics and evolution of planets, stars, galaxies and the Universe as a whole. In this course the thematic focus will be on gravity, which is the dominant force in many astronomical systems. Among the topics we will explore include planetary and binary star systems, supermassive black holes, spiral and elliptical galaxies, dark matter, gravitational lensing, and geometry and cosmic expansion history of the Universe. Prerequisite: PHYS—120 or PHYS—140 (Same as ASTR—390) (ATTR: ARTS)

PHYS—392. Principles of Astrophysics II 3 credits

Astrophysics is the application of physical principles to astronomical systems. Astrophysicists use their knowledge of physics to explain observations of astronomical phenomena, drawing upon a wide range of subjects in physics, including classical mechanics, quantum and atomic physics, thermodynamics, electromagnetism, chemistry, and nuclear physics, among others. In this two semester introduction to astrophysics students will learn how to use a variety of physical principles to understand the characteristics and evolution of planets, stars, galaxies and the Universe as a whole. In this course the thematic focus will be on

using stellar physics to understand the constituents (stars, planets, heavy elements) and physical evolution of the cosmos. Among the topics we will explore planetary and stellar atmospheres, stellar structure and evolution, degenerate stars (white dwarfs and neutron stars), star, galaxy, and planet formation, and the origin of primordial elements synthesized moments after the Big Bang). Prerequisite: PHYS—120 or PHYS—140. (Same as ASTR—392) (ATTR: ARTS, PHYS)

***PHYS—400. Special Topics in Physics 1 - 3 credits

Study of a topic in Physics selected on the basis of faculty and student interest. Prerequisites depend on the topic being offered, and course registration requires permission of the instructor. May be taken more than once with different topics. (ATTR: ARTS, PHYS)

*PHYS—410. Electromagnetic Theory I (Lecture and Laboratory) 4 credits

A development of Maxwell's electromagnetic field equations and an examination of some of their consequences. Electrostatics, steady currents, and static magnetic fields; dielectric and magnetic materials, time-dependent electric and magnetic fields, and the complete Maxwell theory; energy in the electromagnetic field, Poynting's theorem, electromagnetic waves, and radiation from time-dependent charge and current distributions. Four hours of lecture a week for one semester. Prerequisites: PHYS—120 or 140. Prerequisite or corequisite: MATH—260. (ATTR: ARTS, PHYS)

***PHYS—420. Electromagnetic Theory II 2 credits

A continuation of PHYS—410. Two hours of lecture a week for one semester. Prerequisite: PHYS—410. (ATTR: ARTS, PHYS)

*PHYS—430. Solid State Physics 3 credits

An introduction to modern solid-state physics, including lattice structure, lattice vibrations, thermal properties, electron theory of metals and semiconductors, magnetic properties, and superconductivity. Three hours of lecture a week for one semester. Prerequisites: PHYS—220 or CHEM—310 or 320. (ATTR: ARTS, PHYS)

*PHYS—440. Quantum Physics 3 credits

Wave-particle duality and Heisenberg uncertainty principle. Basic postulates of quantum mechanics, Schrodinger equation and wave functions, solution of the Schrodinger equation for one-dimensional systems and for the hydrogen atom. Perturbation theory, operator formalism, matrix mechanics. Three hours of lecture a week for one semester. Prerequisites: MATH—260, PHYS—220, or permission of instructor. Prerequisite or corequisite: MATH—330. (ATTR: ARTS, PHYS)

PHYS—470. Advanced Laboratory I 1-3 credits

Students pursue open-ended experimental or theoretical investigations of their choice with faculty approval and supervision. The research instruments of the School are available including spectrometers, electromagnets, an X-ray diffractometer, and nuclear detectors. Seminars and written reports are required. One three-hour laboratory or research period per credit. Prerequisite: SCDV—230 or permission of instructor. Lab fee. (ATTR: ARTS)

PHYS—472. Advanced Laboratory II 1 or 2 credits

A continuation of PHYS—470. Prerequisite or corequisite: PHYS—470. Lab fee. (ATTR: ARTS)

PHYS — 499. Independent Research 1 - 3 credits

Original laboratory and literature research under the direction of a faculty member. This course is arranged by mutual consent of the student and faculty member. (ATTR: ARTS)

Military Science and Leadership Department

Chair: LTC Andrew Beal, Prof.

Asst. Prof: CPT Christopher Orlando, CPT Roosevelt McCray

Instructors: MSG Derrick Ambrose, SFC Berrios, SFC Murphy

The purpose of the courses offered by the Military Science and Leadership Department are to train quality college students to become the future leaders of the United States Army and the civilian community. The course of study is divided into two parts—the first two years (Basic Course) and the last two years (Advanced Course). Students incur no military obligation while enrolled in the Basic Course and may withdraw from the course at their option. Selection for the Advanced Course is competitive. Students selected for the Advanced Course

participate on a contractual basis and receive \$300-\$500 stipend per school month payment and an additional \$900-\$1200 book allowance each year from the government. Emphasis of the Advanced Course is on applied, individual leadership development, and exposure of the student to military management systems and techniques.

Army ROTC scholarships help students pay their tuition and other expenses while training to become an Officer. Army ROTC scholarships are valuable in many ways:

- Two, three and four-year scholarship options based on the time remaining to complete your degree;
- Scholarship amounts will vary depending on the school and range anywhere from \$10,000 to \$54,273.00;
- **UALBANY:** ~\$3,035.00 per semester **Siena:**~\$15,809.00 per semester **RPI:**~\$23,125 per semester **UNION:**~\$15,595.00 per semester (3 semesters);
- Additional allowances pay for books and fees;
- In addition to the awarded scholarship, each recipient receives a flat rate of \$1,200 annually for books, supplies and equipment, as well as up to \$1,500 in tax-free spending money. Recipients may use their scholarships at any college that offers Army ROTC on their campus.

ROTC scholarships are very competitive. To be competitive, one must:

- Score well on the SAT;
- Be physically fit; have played sports in high school or college, etc., and be able to pass the Army Physical Fitness Test;
- Have been a leader of a club, sports team, extra-curricular activity, etc., or showed leadership ability; Be of good moral character.

Students not desiring an Army commission may still enroll and complete any basic military science course for elective credit. Such participation does not incur any contractual obligations.

A student may satisfy requirements for application to the Advanced Course in pursuit of a commission in one of three ways:

- (2) Completion of the first two years (Basic Course) allows a student to earn four academic credits towards graduation while qualifying for the Advanced Course. The student is expected to attend one hour of classroom instruction during the Basic Course.
- (3) Students may also qualify for entrance into the Advanced Course by selection to the four-week Leadership Training Course (LTC) held the summer between their sophomore and junior year at Fort Knox, KY. Qualified students may compete for two-year scholarships while attending the summer Leadership Training Course. Students may elect to enter the Advanced Course upon successful completion of LTC. All expenses to attend the course are fully funded by the military. Attendance at the summer Basic Camp does not obligate the student to enroll in ROTC unless they are awarded and accept a scholarship.
- (4) Students with Junior ROTC, Senior ROTC, service academy experience, or prior military service may also qualify to enter the Advanced Course.

The ROTC program may be pursued in conjunction with any academic major offered at Siena. Completion of the Advanced Course qualifies graduates to receive an officer's commission concurrent with the baccalaureate degree and does not necessarily interfere with subsequent graduate or professional studies.

During the senior year, the student has the option of applying for one of two types of commissions. The first type, a Reserve Forces Duty commission as a citizen Soldier with the Reserve Forces, is for graduates wishing to serve in the US Army Reserve or US Army National Guard, while pursuing a civilian occupation. The second option enables graduates to go on active duty, as a Second Lieutenant in their assigned military specialty.

Laboratories offered by the Department of Military Science and Leadership focus on the application of leadership methods and techniques that are taught in the classroom. Some are scheduled on weekdays and some on weekends, and they are typically conducted at off-site locations. Laboratories also stress adventure and outdoor activity as a means to build personal confidence. This is an optional activity for students who are not pursuing a commission. Labs are mandatory for students in the Advanced Course and for those who are receiving scholarship benefits.

All students accepted into the Advanced Course must attend the Leadership Development and Assessment Course (LDAC) during the summer after their junior year. The purpose of LDAC is to evaluate the leadership

potential of officer candidates who wish to pursue a commission in the United States Army. This four week course builds upon the skills and methods taught in the junior year.

Exciting internships are offered to enrolled sophomores and juniors who qualify. These internships offer students the ability to become certified in skills taught by U.S. Army Schools. Some of these skills are parachutist certification, rappelling certification and outdoor survival certification. Other internships include foreign language programs in other countries and the opportunity to serve in multiple career fields found in the United States Army as junior leaders. There are a variety of programs that also compensate students for demonstrated academic proficiency in certain languages.

Description of Courses

MILS—100. Introduction to Military Leadership I 1 credit

The course introduces students to fundamental components of service as an officer in the United States Army. These initial lessons are the building blocks of progressive lessons in values, fitness, leadership, and officership. Students will learn how the personal development of life skills such as cultural understanding, goal setting, time management, mental/physical resiliency, and stress management relate to leadership, officership, and the Army profession. The focus is on developing basic knowledge and comprehension of Army leadership attributes and core leader competencies while gaining an understanding of the ROTC program, its purpose in the Army, and its advantages for the student. (ATTR:ARTS)

MILS—110. Introduction to Military Leadership II 1 credit

The course builds upon the fundamentals introduced in MILS—100 by focusing on leadership theory and decision making. “Life skills” lessons in the semester include: problem solving, critical thinking, leadership theory, followership, group interaction, goal setting, and feedback mechanisms. Upon completion, students are prepared to advance to more complex leadership instruction concerning the dynamics of organizations. (ATTR:ARTS)

MILS—200. Foundations of Military Leadership I 1 credit

The course contains the principal leadership instruction of the Basic Course. The use of practical exercises is emphasized, as students are increasingly required to apply communications and leadership concepts. The focus continues to build on developing knowledge of the leadership attributes and core leader competencies through the understanding of Army rank, structure, and duties as well as broadening knowledge of land navigation and infantry squad tactics. Case studies will provide a tangible context for learning and understanding the Soldier’s Creed and Warrior Ethos. Upon completion of this semester, students should be well grounded in the fundamental principles of leadership, and be prepared to intensify the practical application of their studies during the Advanced Course. (ATTR:ARTS)

MILS—210. Foundations of Military Leadership II 1 credit

The course focuses principally on officership, providing an extensive examination of the unique purpose, roles, and obligations of commissioned officers. It includes a detailed look at the origin of the Army’s institutional values and their practical application in decision making and leadership. Students examine the challenges of leading teams in a complex, combat operational environment. The course highlights dimensions of terrain analysis, infantry patrols, and operation orders. Further study of the theoretical basis of the Army Leadership Requirements Model explores the dynamics of adaptive leadership in the context of military operations. This course draws on the various components of values, communications, decision making, and leadership together to focus on a career as a commissioned officer. Upon completion of this course, students should possess a fundamental understanding of both leadership and officership and demonstrate the ability to apply this understanding in real world situations. (ATTR:ARTS)

MILS—300. Applied Military Leadership I 2 credits

In this course students will study, practice, and apply the fundamentals of Army leadership, Officership, Army Values and ethics, personal development, and small unit tactics at the team and squad level. At the conclusion of this course, students will be capable of planning, coordinating, navigating, motivating and leading a team or squad in the execution of a tactical mission during a classroom PE, a Leadership Lab, or during a Situational Training Exercise (STX) in a field environment. Successful completion of this course will help prepare students for success at the ROTC Leader Development and Assessment Course (LDAC) during the summer following the junior year, at Fort Lewis, WA. This course includes reading assignments, homework assignments, small group assignments, briefings, case studies, and practical exercises, a mid-term exam, and a final exam. Students will receive systematic and specific feedback on leader attributes values and core leader competencies from

instructor and other ROTC cadre and MSL IV Cadets who will evaluate students using the ROTC Leader Development Program (LDP) model. The course closes with instruction in small unit battle drills to facilitate practical application and further leader development during labs and Situational Training Exercises (STX). (ATTR:ARTS)

MILS—310. Applied Military Leadership II 2 credits

The course continues to focus on doctrinal leadership and tactical operations at the small unit level. It includes opportunities to plan and conduct individual and collective skill training for military operations to gain leadership and tactical experience. The course synthesizes the various components of training, leadership and team building. Students are required to incorporate previous military science instruction for their practical application in a performance-oriented environment. Upon completion of the course, students will possess the fundamental confidence and competence of leadership in a small unit setting and are prepared to attend the Leadership Development and Assessment Course. (ATTR:ARTS, MGEL)

MILS—400. Adaptive Military Leadership I 2 credits

The course concentrates on leadership, management and ethics. The course focuses students, early in the year, on attaining knowledge and proficiency in several critical areas they will need to operate effectively as Army officers. These areas include: Coordinate Activities with Staffs, Counseling Theory and Practice within the “Army Context,” Training Management, and Ethics. While proficiency attained in each of these areas will initially be at the apprentice level, students will continue to sharpen these skills as they perform their roles as Cadet officers within the ROTC program and after commissioning. At the end of the course, students should possess the fundamental skills, attributes, and abilities to operate as competent leaders. (ATTR:ARTS, MGEL)

MILS—410. Adaptive Military Leadership II 2 credits

The course focuses on completing the transition from Cadet to lieutenant. As a follow-on to the Ethics instruction in MILS—400, the course starts with a foundation in the legal aspects of decision making and leadership. The curriculum reinforces previous instruction on the organization of the Army and introduces how the Army organizes for operations from the tactical to the strategic level. This is followed by instruction on administrative and logistical management that will focus on the fundamentals of Soldier and unit level support. At the core of the semester is the Advanced Course Capstone Exercise. This twelve-lesson exercise incorporates learning objectives from the entire military science curriculum. The Capstone Exercise will require students, both individually and collectively, to apply their knowledge to solve problems and confront situations commonly faced by junior officers. Upon completion of the course, students will be prepared for the responsibility of being a commissioned officer in the United States Army. (ATTR:ARTS, MGEL)

Off Campus Opportunities

Internships

Internships offer students an opportunity to enrich and enliven their academic programs. Work is supervised and evaluated in conjunction with the on-campus coordinator and a designated individual in the agency, institution, or business organization providing the internship. Internships are generally open to seniors and in some cases juniors who meet departmental and school qualifications. The student must meet with the intern coordinator to determine the necessary requirements including, prerequisites, GPA requirements or any other academic standards which may apply.

The School of Liberal Arts, School of Business and School of Science each offer school internships. The school internships are field experiences integrated into the student’s academic areas of interest. All school internships require a minimum of 40 hours of field experience for each hour of academic credit. Students participating in this program are required to keep a daily journal that relates the field experience to the student’s academic area of interest. School internships also require a final paper that is due on the first day of the final examination period for that semester. The following are the minimum campus-wide regulations applied to internship participation:

1. To participate as interns, students must:
 - a. have matriculation status
 - b. be either juniors or seniors, depending upon each department’s or school’s rules

- c. be full-time students
(an exception may be made for part-time students for participation in an organization other than their regular employer)
 - d. have written permission signed by the internship coordinator or department head
 - e. submit this written permission to the Registrar at the time of registration
2. Internship participation is permissible during the fall and spring semesters and during the summer at the discretion of the academic department, school, or program. In order to participate in a summer internship, the student must be a senior with a minimum of 75 credits completed toward her/his degree, and must provide a program of study (signed by the student's advisor) outlining the completion of degree requirements within twelve months. Summer internships are limited to a total of three credit hours.
 3. A student may earn up to a total of six credit hours for all internship activity and may take only one internship in a single semester. An exception is made for all students who take international internships. In these cases, a student may earn up to 8 credits for the international internship and may also earn up to a total of 3 credits for one additional internship.

To assist both the students and the internship coordinators, the Office of Career and Professional Development serves as a Siena clearinghouse for information about school internships. A faculty member from each school is also available to discuss internships with students. Letter grades are earned for all departmental internships. However, all school internships are graded on a pass/fail basis. Because this pass/fail option is mandated by the College, the course does not count toward the maximum number of pass/fail courses that a student may take in any semester.

Study Abroad

Siena College offers students in every major the opportunity to study abroad for an academic year or semester from an approved list of programs. The programs are varied and include direct enrollment at foreign universities, international internships, and service-learning placements, available in both English speaking and foreign-language environments. International study is typically undertaken during the junior year. Transfer students must complete one semester of full-time study at Siena before being eligible to study abroad. A minimum overall GPA of 2.75 is required to apply for study abroad; however some programs require applicants to have a GPA of 3.0. Passing grades earned during a semester abroad are accepted for credit but are not included in the calculation of the Siena term or cumulative GPA. A separate Supplemental Transcript including course titles and grades received while abroad is created and accompanies the regular Siena transcript. Summer study abroad is considered transfer credit and a grade of C or better must be earned in order for the credit to be accepted. Students are required to obtain prior approval to study abroad from the Center for International Programs for study abroad, otherwise credits from abroad may not be accepted. For detailed information consult the website www.siena.edu/studyabroad.

Washington Semester

Selected students may participate in a semester study program in Washington, D.C. under the combined auspices of Siena College and American University. Students choose to enroll in one of eight different programs: American Government, General American Government—Public Law, Justice, Foreign Policy, Economic Policy, International Trade and Business Policy, Journalism or Peace and Conflict Resolution. Each program includes two seminar courses and an internship in one of the following areas: Congressional offices and committees, research think tanks, Executive Branch agencies, interest groups, local government offices, or media offices. Students participating in the Economic Policy, International Trade and Business Policy, Justice or Peace and Conflict Resolution program may take an elective course offered by American University in lieu of the research project, while students in Journalism must choose an elective course. The student selecting an elective course will receive a total of 15 credits while those choosing to do the research project will receive a total of 16 credits for the semester. The program is offered each semester and is open to all juniors and seniors. Students are selected on a competitive basis. Students interested in participating in this program should contact Dr. Dan Lewis, Asst. Professor of Political Science. Information may also be obtained from the website: www.washingtonsemester.com.

The Williamsburg Collegiate Program in Early American History, Material Culture, and Museum Studies

Siena students in any major are invited to participate in the unique “history immersion” program offered through Siena College’s McCormick Center for the Study of the American Revolution and the College of William and Mary’s National Institute for American History and Democracy. The semester-long curriculum provides a thorough grounding in interdisciplinary study of early American history and material culture. Students will complete a required course in public history, a “field school” in material culture, archeology or architectural history, an additional elective, and a semester long internship at the Colonial Williamsburg Foundation. Students will live at the College of William & Mary, the second oldest college in the United States. The program is offered each semester and is open to Siena students in any major. Students interested in participating in this program should contact Dr. Karen Ward Mahar, Chair of the History Department. Information may also be obtained from the website: www.wm.edu/as/niahd/

Pre-Professional Studies

Pre-Medical, Pre-Dental and other Health-Related Studies

Siena students preparing for the study of medicine, dentistry and most other health professions careers normally major in one of the sciences. The minimum undergraduate course requirements for entry into most medical or dental school include: General Biology I and II, General Chemistry I and II, Organic Chemistry I and II, General Physics IA (or I) and IIA (or II), Calculus IA (or I) and Calculus IIA (or II), and one year of college-level English. Students in any of the science majors can accommodate these 40 credits of science within their degree program. Additional Biology courses (ex. Cell Biology, Genetics, Physiology and Biochemistry) are strongly recommended and required by some schools.

All students should consult with the Health Professions Advisor, Dr. Elizabeth Brookins, and their academic advisor to insure appropriate course selection and course sequencing. Students interested in other health professions should consult with the Health Professions Advisor to be certain of meeting specific requirements for other professional schools. The Health Professions Recommendation Committee considers applications for careers in dentistry, medicine, optometry, osteopathic medicine, podiatry, chiropractic medicine and veterinary medicine.

Medical and Related Programs

Albany Medical College Program in Science, Humanities and Medicine

Personally and academically talented high school seniors who have demonstrated a commitment to the service of others will be jointly accepted by Siena and Albany Medical College into a unique eight-year program in medical education. A 3.5 average in the sciences is required to remain in the program. In the junior and senior years at Siena, academic emphasis will be placed on the humanities. Students in this program will be required to declare a minor in one of the humanities or social sciences and will earn a B.A. degree in Biology (see Biology Department listing for specific course requirements). An extended commitment to volunteer service is required of all program participants during the summer between the junior and senior years. Funding is provided for travel and living expenses. Candidates must complete the Common Application and Siena Supplemental Application by November 15th of the student’s senior year in high school. **For more information about the requirements see Dr. LaRow.**

Albany Medical College Early Assurance Program for Underrepresented Students

Albany Medical College will accept two underrepresented students at the completion of the sophomore year. The accepted students remain at Siena and complete their degree in the major of their choosing prior to matriculation into Albany Medical College. To be eligible to apply students must have completed half of the required premedical courses with a 3.2 overall and science GPA. The required courses are: General Biology I & II, General Chemistry I & II, Organic Chemistry I & II, General Physics I & II.

SUNY Upstate Medical University Dual Acceptance

Upstate Medical University will jointly accept two students per year directly out of high school, Siena’s Admissions and Health Professions Advisor will submit names of accepted incoming Siena students to Upstate for interviews. These interviews will take place at Upstate in April prior to the students’ enrollment at Siena. Candidates must have a 90 high school average; minimum of 1250 SAT (28 ACT); health related activities; and reside in a rural community in New York State. In order to retain their

acceptance, students must maintain a minimum cumulative and pre-requisite science undergraduate GPA of 3.5 each semester, earn no grade lower than a “C”, and score a minimum of 509 on the MCAT. Applicants have a maximum of two attempts (if needed) to attain the minimum score by August 31st, one year prior to their expected matriculation at SUNY Upstate. Acceptance is conditional and will be rescinded if conditions of acceptance are not met.

SUNY Upstate Medical University Early Assurance Program

Students apply to the Early Assurance Program with Upstate Medical University after having completed their spring semester of their sophomore year. Interviews and acceptances are announced late summer. Accepted candidates are expected to complete their bachelor’s degree at Siena in good standing with no grade lower than a “C”. The program relieves students of the anxiety of the traditional application process. Requirements include (1) minimum cumulative and prerequisite science undergraduate GPA of 3.5, (2) completion of five out of the eight required science courses, (3) recommendation by the Health Professions Committee, and (4) a recommended 1300 SAT or 29 ACT score. An interview with Siena’s Health Recommendation is required. In order to retain their acceptance, students must maintain a minimum cumulative and prerequisite science undergraduate GPA of 3.5 each semester, earn no grade lower than a “C” and score a minimum of 509 on the MCAT. Applicants have a maximum of two attempts (if needed) to attain the minimum score by August 31st, one year prior to their expected matriculation at SUNY Upstate. Acceptance is conditional and will be rescinded if conditions of acceptance are not met.

Lake Erie College of Osteopathic Medicine Combined Degree Program

Qualified High school seniors can jointly apply to Siena and LECOM. Students must have a minimum SAT score of at least 1170 (or an ACT score of 26) and must have a minimum high school GPA of 3.5. Students interested in this joint program should apply to Siena and notify the Health Professions advisor, Dr. Brookins, of their interest into this program. Students interview at LECOM during their senior year in high school and Siena is notified of their acceptance. Students must maintain a GPA of 3.4 and 25 MCAT to matriculate at LECOM. Students will enroll at the LECOM campus of their choice: Erie, PA, Greensburg, PA, or Bradenton, FL. completing their first year at Siena. A 3.5 GPA is required for acceptance into the program and continued matriculation.

Lake Erie College of Osteopathic Medicine Early Acceptance Program

This Agreement establishes an Early Acceptance Program to which Siena College undergraduate students (in their first or second year) can apply early in their academic career to LECOM. The Early Acceptance Program is designed to facilitate the admission of Siena College students into LECOM’s Doctor of Osteopathic Medicine program. Once recommended by Siena College, LECOM will interview the student prior to completion of the student’s second year at Siena. Students successfully interviewing will be offered a provisional acceptance to LECOM’s Doctor of Osteopathic Medicine program. Upon meeting the criteria for final acceptance, they will matriculate at the LECOM campus of their choice. Because this is a demanding professional program, the requirements listed for acceptance have been established to demonstrate that the student is capable of handling the rigorous course load, for more information, see Dr. Brookins.

Lake Erie College of Dental Medicine Combined Degree

This Agreement establishes a Joint Acceptance Program between Siena College and LECOM School of Dental Medicine; prospective students should contact Dr. Brookins, Health Professions Advisor, with questions. The Early Acceptance Program is designed to facilitate the admission of incoming Siena College students into LECOM’s Doctor of Medical Dentistry program. Students apply directly to Siena College and LECOM’s School of Dentistry during their senior year of high school. To be eligible for a dual acceptance, a student must have a 1170 SAT or 26 ACT and have a 3.5 GPA in high school. Students must maintain this level of performance at Siena and obtain the required DAT scores for matriculation into LECOM School of Dental Medicine. The dental campus is in Bradenton Florida.

Lake Erie College of Dental Medicine Early Acceptance Program

The Early Acceptance Agreement Program between LECOM and Siena College allows undergraduate students (in their first or second year) to apply early in their academic career to LECOM School of Dental Medicine in Bradenton, Florida. The Early Acceptance Program is designed to facilitate the admission of Siena College students into LECOM’s Doctor of Medical Dentistry program. Academically qualified

students will be recommended by Siena College and LECOM will interview the student prior to completion of the student's second year at Siena. Students successfully interviewing will be offered a provisional acceptance to LECOM's School of Dental Medicine. Because this is a demanding professional program, the requirements listed for acceptance have been established to demonstrate that the student is capable of handling the rigorous course load, for more information, see Dr. Brookins. To be eligible for early acceptance, a student must have an 1170 SAT or 26 ACT, a 3.5 GPA in high school and a 3.4 overall GPA at Siena (3.2 GPA in science). Students must maintain this level of performance at Siena and obtain the required DAT scores for matriculation into LECOM School of Dental Medicine.

SUNY Buffalo School of Dental Medicine Combined Degree Program

Exceptionally qualified high school seniors can apply and be jointly accepted by both Buffalo School of Dental medicine and Siena College. This accelerated (7 year) program is designed for individuals who have a clear career focus on dentistry prior to entering college, and it allows students to complete both a bachelor's degree and a doctor of dental surgery degree in seven. Interested students should notify Dr. Brookins when they apply to Siena; qualified students are then recommended to Buffalo for consideration into this program if they meet the minimum academic standards -high school average of 93 or higher and a SAT of 1300. Interviews take place at Buffalo during the second semester of the senior year of high school and accepted students will be offered a provisional acceptance in the spring of their senior year in high school. To remain in the program a GPA of 3.5 and a minimum DAT are required by Buffalo School of Dental Medicine. Students complete their first three years of education at Siena College and their last four years at Buffalo's School of Dental Medicine. A Bachelor's degree will be granted from Siena after completion of the first year at Buffalo.

SUNY Buffalo School of Dental Medicine Early Assurance

The Early Assurance Program at the School of Dental Medicine was developed to offer the opportunity for early acceptance to academically strong undergraduate students focused on a career in dentistry and to relieve some pressure and expense from applying to dental schools. Interested academically qualified (3.5 college GPA) sophomores at Siena will go before the Health Professions Recommendation Committee at Siena for recommendation to Buffalo. Accepted students will be notified by July 15 after their sophomore year and are required to maintain a 3.7 GPA at Siena and minimum required DAT scores. Students are also required to gain at least 100 hours of clinical dental experience prior to matriculation into Buffalo School of Dental Medicine.

Salus College of Optometry

Siena and Salus College of Optometry (Pennsylvania College of Optometry) offer an accelerated (7 year) program leading to an optometry doctorate. Qualified Siena students will be accepted by Salus College of Optometry after completing three years in Siena's accelerated Biology curriculum. Siena will grant the Bachelor of Science degree when the student has completed his or her first year of professional study. Your academic advisor and Health Professions Advisor, Dr. Brookins, will provide you with a suggested three year curriculum.

State University of New York College of Optometry Joint Degree Program (and Early Acceptance)

Siena College is one of only 25 colleges in the country to have an accelerated Joint Degree Program with SUNY College of Optometry. Up to six students per year may be admitted into a seven year Bachelor of Science and Doctor of Optometry (O.D.) Program. Students accepted into this Joint Degree Program are admitted into Siena College and simultaneously (provisionally) admitted to the SUNY College of Optometry. Admission directly from high school requires a 93% academic average, 1300 SAT (or 29 ACT), strong interest in Optometry and successful interview at SUNY Optometry. Siena students may also be eligible for this accelerated program if they met the above GPA and SAT/ ACT requirements and have at least a 3.3 GPA at Siena. Accepted students must maintain a 3.3 GPA (overall and science) at Siena and earn at least 330 on every section of the OAT. Students complete three years of pre-professional training at Siena College and then enroll at SUNY Optometry for four years of professional school. Students will be awarded a Bachelor's degree in Biology upon successfully completing their first year at SUNY. Dr. Brookins, the Health Professions Advisor and your academic advisor will provide you with a suggested three year curriculum.

New England College of Optometry.

Up to five students a year will be jointly admitted by NECO and Siena College. Students enrolled in this accelerated program will complete three years at Siena prior to matriculating into NECO for four years (an optional 4 + 4 track may be available). Dr. Brookins, the Health Professions Advisor, will work with students interested in this program, to design a suggested accelerated curriculum. A Bachelor's degree will be awarded after the first year of study at NECO. To remain in the program students must maintain a 3.4 GPA and an average 330 on the OAT with no score below 300.

Lake Erie College of Osteopathic Medicine- School of Pharmacy Early Acceptance

Siena College and Lake Erie College of Pharmacy have established three tracks leading to a PharmD. degree. The options are a 2+, 3+ or 4+ program between Siena and LECOM Pharmacy. The 2+ program is available for exceptional high school students, where students can be jointly accepted by both LECOM and Siena. After completing two years at Siena they begin their professional training at LECOM School of Pharmacy. No Siena degree is attained. For the 3+ program, Students apply to LECOM by February of their freshman year at Siena. After completing the 3-year undergraduate phase (accelerated curriculum) they enroll at LECOM. A Siena Degree is obtained at the end of the first year of professional study. The 4+ program allows students to apply to LECOM School of Pharmacy by February 1st of their sophomore year. They spend all four years at Siena. Continuation in these programs is contingent on maintaining a 3.4 overall GPA. Students have the choice to enroll in the traditional four year pharmacy curriculum or an accelerated three year curriculum. Professional training on the Erie, PA campus is an accelerated 3-year curriculum, while the Bradenton, FL campus is a full 4- year curriculum. For information about this Pharmacy program and the different tracks see Dr. Brookins.

Allied Health Professions

Siena College students preparing for study in the Allied Health Professions (physical therapy, occupational therapy, physician assistant, etc.) should consult with the Allied Health Professions Advisor, Mrs. Eileen Martino, and their academic advisor to ensure appropriate course selection and meeting specific graduate admission requirements. The undergraduate course requirements vary a great deal depending upon which health care profession a student is interested in. Most, if not all, allied health professions require Human Anatomy and Physiology 1 and 2 as well as Statistics for the Social Sciences.

Albany Medical College Physician Assistant Early Assurance Program

Masters of Science Degree in Physician Assistant Studies

The Early Assurance Program (EAP) is an opportunity for juniors to apply to the Center for Physician Assistant Studies at Albany Medical College (CPAS). Accepted students are required to complete their Bachelor's degree at Siena College prior to matriculation in January after they graduate. Please Note- No transfer students are allowed to apply through the EAP. Admission to the EAP is highly selective based on grades which include Overall, Science, and Chemistry GPA (must be greater than 3.20), SAT scores, recommendations, a personal statement, and an interview. Students must also complete at least one half (approximately 500 hours) of the 1000 hours of required health care experience. Interested students should contact Mrs. Eileen Martino, Allied Health Professions Advisor for additional information.

Sage Graduate School Doctorate of Physical Therapy Program: Articulation Agreement

Siena College and The Sage Colleges School of Health Sciences have developed a collaborative agreement to provide qualified students from Siena College an opportunity to pursue a Doctorate of Physical Therapy (DPT) from the Sage Graduate Schools (SGS). Qualified students apply the summer following their junior year. Siena students will be given preferred admission consideration to the Sage Colleges School of Health Sciences for the DPT degree, who demonstrate the following: 1.) On track for earning a baccalaureate degree, 2.) Overall and Science GPA of 3.25 or higher, 3.) Completion of the Physical Therapy Program Prerequisites with grade of C or better, 4.) Completion of a minimum 40 hours of Clinical Observation in various PT settings. Interested students should contact Mrs. Eileen Martino, Allied Health Professions Advisor for additional information.

Sage Graduate School Masters in Occupational Therapy Program: Articulation Agreement

Siena College and The Sage Colleges School of Health Sciences have developed a collaborative agreement to provide qualified students from Siena College an opportunity to apply to the Masters in Occupational Therapy Program (MS in OT) from the Sage Graduate Schools (SGS). Qualified students will be given preferred admission consideration to the Sage Colleges School of Health Sciences for the MS in OT degree,

who demonstrate the following: 1.) On track for earning a baccalaureate degree, 2.) Overall GPA of 3.25 or higher and 3.0 Science GPA or higher (includes Human Anatomy and Physiology 1 and 2 and General Physics 1, 3.) Completion of the Occupational Therapy Program Prerequisites with grade of C or better, 4.) Completion of a minimum of 20 hours of Clinical Observation in various OT settings. The deadline to apply is June 1st following junior year. Students interested in this program should contact Mrs. Eileen Martino, Allied Health Professions Advisor for additional information.

Sage Graduate School Masters in Applied Nutrition: Articulation Agreement

Siena College and The Sage School of Health Sciences have developed a collaborative agreement which allows Siena College graduates to seamlessly transition into the Post Baccalaureate Certificate in Nutrition Science Program or a Masters in Applied Nutrition Program at the Sage Graduate School. Qualified students will be given preferred admission into the Nutrition Program if they have met the course prerequisites prior to application. Students also have the option to enter into the Registered Dietitian track with additional prerequisite courses. If interested in this agreement, students should contact Mrs. Eileen Martino, Allied Health Professions Advisor for additional information.

Affiliation/Articulation Agreements and Cooperative Programs

Affiliation/Articulation Agreements with 2-Year Institutions

Siena College has developed affiliation agreements with Hudson Valley Community College, Adirondack Community College, and Ulster County Community College. The School of Science also has an affiliation agreement with Schenectady County Community College and SUNY-Cobleskill. Under the terms of these agreements, students who complete the programs outlined in the Community Colleges' catalogs and maintain the standards prescribed by the Coordinator of Transfer Admissions and the Dean of the appropriate School at Siena will be admitted to the College. Under ordinary circumstances, these students will be able to complete the requirements for a bachelor's degree in two years.

The Social Work Department has articulation agreements with Hudson Valley Community College and with Schenectady County Community College, describing courses of study in their Human Services majors which will transfer into Siena's Bachelor of Arts in Social Work program. For more information, contact the Chair of Social Work at Siena College.

SUNY Cobleskill, Siena College, and Upstate Medical University offer an eight-year continuum leading to the M.D. Degree. This program has been implemented to address the shortage of rural physicians. Contact SUNY Cobleskill for more information.

Students interested in further information about these programs should consult with the Coordinator of Transfer Admissions or the Assistant to the Dean of the appropriate School at Siena College.

Business Management Programs

Clarkson University

Siena College and the School of Business at Clarkson University have cooperated in establishing a 4/1 program that enables the student to earn the undergraduate degree and the MBA in five years. Through careful advisement, students may plan their undergraduate programs to include certain approved foundation courses that serve as preparation for graduate work in management. A Siena graduate meeting the program requirements and Clarkson's standards for admission will be accepted into the MBA program at Clarkson. Students interested in pursuing either program should consult with the Assistant Dean in the School of Business.

Pace University Lubin School of Business - MBA

Siena College and the Lubin School of Business at Pace University have cooperated in establishing a 4/1 program that enables the student to earn the undergraduate degree and the MBA in five years. Through careful advisement, students may plan their undergraduate programs to include certain approved foundation courses that serve as preparation for graduate work in management. A Siena graduate meeting the program requirements and Lubin's standards for admission will be accepted into the Lubin MBA

Program. Students interested in pursuing such a program should consult with the Assistant Dean in the School of Business.

Pace University - MS in Information Systems

Siena College and the School of Computer Science and Information Systems at Pace University have cooperated in establishing a 4/1 program that enables the student to earn the undergraduate degree and the MS in five years. Through careful advisement, students may plan their undergraduate programs to include certain approved foundation courses that serve as preparation for graduate work in computer science and information systems. A Siena graduate meeting the program requirements and Pace's standards for admission will be accepted into the MS program at Pace. Students interested in pursuing such a program should consult with the Assistant Dean in the School of Business.

St. John's University

Siena College and The Peter J. Tobin College of Business at St. John's University have cooperated in establishing a 4/1 program that enables the undergraduate accounting student to earn their undergraduate degree and the M.S. in Accountancy or M.S. in Taxation in five years. This arrangement provides the student with a background for advanced professional placement in accounting and satisfies the educational requirements for certification as a CPA in the State of New York. Through careful advisement, the student may plan their undergraduate program to include the necessary courses that serve as preparation for graduate work. A Siena graduate meeting the program requirements and St. John's University admissions standards will be accepted into the M.S. in Accountancy or M.S. in Taxation program. Students interested in pursuing either program should consult with the Assistant Dean in the School of Business.

Union Graduate College

Siena College and Union Graduate College have cooperated in establishing a 4/1 program that enables the student to earn the undergraduate degree and MBA in five years. Through careful advisement, students may plan their undergraduate programs to include certain approved foundation courses that serve as preparation for graduate work in management. A Siena graduate meeting the program requirements and The Graduate College's standards for admission will be accepted into the MBA program at Union Graduate College. Students interested in pursuing such a program should consult with the Assistant Dean in the School of Business.

Université Laval

Siena College and the School of Business at Université Laval have cooperated in establishing a program that enables the student to earn an internationally recognized MBA degree. This arrangement provides the student with a unique curricular focus in international business in a bilingual environment. Depending on the specialization chosen and its format, the program can be completed in 12 to 24 months. A Siena graduate meeting the program requirements and Laval's standards for admission will be accepted into the Laval MBA program. Students interested in pursuing such a program should consult with the Assistant Dean in the School of Business and the Center for International Programs.

University at Albany, SUNY - MBA

Siena College and the School of Business at The University at Albany, SUNY have cooperated in establishing an arrangement that enables the undergraduate student to waive up to ten credits toward The University at Albany, SUNY full-time or part-time M.B.A. program. Through careful advisement, the student may plan their undergraduate program to include the necessary courses that serve as preparation for graduate work. A Siena graduate meeting the program requirements and The University at Albany, SUNY admissions standards will be accepted into the full-time or part-time M.B.A. program. Students interested in pursuing either program should consult with the Assistant Dean in the School of Business.

MS in Professional Accountancy, MS in Accounting Information Systems, MS in Taxation

Siena College and the School of Business at The University at Albany, SUNY have cooperated in establishing a 4/1 program that enables the undergraduate accounting student to earn their undergraduate degree and the M.S. in Professional Accountancy, or M.S. in Accounting Information Systems, or M.S. in Taxation in five years. This arrangement provides the student with a background for advanced professional placement in accounting and satisfies the educational requirements for certification

as a CPA in the State of New York. Through careful advisement, the student may plan their undergraduate program to include the necessary courses that serve as preparation for graduate work. A Siena graduate meeting the program requirements and The University at Albany, SUNY admissions standards will be accepted into the M.S. in Professional Accountancy, or M.S. in Accounting Information Systems, or M.S. in Taxation program. Students interested in pursuing one of these programs should consult with the Assistant Dean in the School of Business.

Engineering Programs

Clarkson Graduate School

This program enables a Siena undergraduate student pursuing a B.S. in Physics, Environmental Science, Computer Science, or Mathematics to complete a CGS M.S. degree in Electrical Engineering, Energy Systems, or Engineering and Management Systems in one additional year (depending on their course load) after completing their Siena undergraduate degree.

Siena undergraduate students must apply for and be granted admission to Clarkson Graduate School no later than the end of the fall term of their senior year. Students are encouraged to apply as early as the end of their sophomore year to facilitate appropriate undergraduate course selection at Siena and graduate course selection at Clarkson Graduate School. A cumulative grade point average of 3.0 is expected for most programs. Acceptance into a program may enable students to apply up to three Clarkson Graduate School 500-level graduate courses for credit in fulfillment of their undergraduate degree at Siena and their graduate degree at Clarkson Graduate School, depending upon their program of study. Siena students have the option to not matriculate with Clarkson Graduate School, and the graduate courses taken will still apply to their BS degree at Siena. Students wishing to apply shall complete the application for admission to Clarkson Graduate School, School of Engineering and Computer Science. Only students that have met the acceptance criteria can register for Clarkson Graduate School courses (see registration form). Registration requires both Siena and CGS advisor approvals.

3/2 Engineering

Siena participates with Rensselaer Polytechnic Institute, Clarkson University, Manhattan College, SUNY-Binghamton and Western New England College in a cooperative science engineering program. The program is a combined five-year sequence which leads to a B.S. degree in chemistry, computer science, physics or mathematics from Siena and a B.E. degree in aeronautical, biomedical, civil, chemical, electrical, industrial, materials, mechanical or nuclear engineering at one of the six cooperating schools. (Not all of these disciplines are available at all of the engineering schools and some additional specialties and variations are available at individual institutions.) A student will attend Siena for the first three years majoring in chemistry, computer science, physics, or math-science. Upon the successful completion of the third year with a clearly demonstrated potential of success in engineering and the recommendation of the Dean of Science, such students would transfer into an engineering program at one of these cooperating colleges. Upon completion of the fourth year, Siena will award a B.S. degree in the appropriate discipline. The student is awarded the B.E. degree at the successful completion of the fifth year. Since available space may occasionally limit the number of applicants accepted in a specific area, students should apply early for transfer and maintain flexibility. To ensure proper course selection, all students should consult both their academic advisor and the 3/2 Engineering Coordinator, Dr. John Cummings, at least once each semester.

A complete description of these cooperative programs (requirements and process and forms) is available with the Siena School of Science, Office of the Dean, and Siena Registrar Office.

Law School Programs

Albany Law School

Siena College and Albany Law School have cooperated in establishing a 4/3 Early Admission Program that will accept applications from students either prior to the start of the freshman year or after the freshman year. Students admitted to the program will be guaranteed admission to Albany Law School upon attainment of their bachelor's degree provided they have satisfied the criteria specified for remaining in the program, which include maintaining a 3.2 GPA during the first three years and a 3.3 cumulative GPA by the end of the senior year. Students interested in the program should consult with the Pre-Law advisor.

Elizabeth Haub School of Law (Pace University Law School)

Siena College and Elizabeth Haub School of Law have cooperated in establishing a 4/3 Early Admission Program that will accept applications from students either prior to the start of the freshman year or after the freshman year. Students admitted to the program will be guaranteed admission to Pace Law School upon graduation from Siena College provided the academic standards are met. These include maintaining a 3.20 GPA during the first three years and a 155 on the LSAT. Students interested in the program should consult with the Pre-Law Advisor, Dr. Leonard Cutler.

Western New England University School of Law

Siena College and Western New England University School of Law have cooperated in establishing a 4/3 Early Admission Program that will accept applications from students prior to the start of their freshman year or after the freshman year. Students admitted to the program will be guaranteed admission to Western New England University School of Law, upon graduation from Siena College and provided the academic standards are met. These include maintaining a 3.30 GPA during the Sophomore, Junior, and Senior years, achieving an established score on the LSAT, a personal interview with a professional admissions staff member, and satisfying character and fitness standards established by Western New England College of Law. Final decisions on acceptance will be made in the first semester of the student's senior year.

Students interested in either program should consult with the Pre-Law Advisor, Dr. Leonard Cutler.

Reserve Officer Training Corps (ROTC) Air Force/Navy

Students who are interested in Air Force or Naval ROTC may cross-enroll in these programs through the Department of Air and Space Studies or the Department of Naval Science at Rensselaer Polytechnic Institute. Details on these programs is available at <http://www.rpi.edu/academics/rotc.html>.

Social Work Masters Programs

Siena B.A. in Social Work Program/Adelphi University Masters in Social Work Program (advanced standing).

The Adelphi University School of Social Work will grant graduating seniors from the Siena College Social Work Program priority consideration for admission into the Advanced Standing Component of the M.S.W. Program, at the Hudson Valley Center located in Poughkeepsie, NY. This evening / weekend program offers a unique option for Siena graduates, especially those that must continue to be employed while pursuing their MSW degree. To be considered for early admission, in addition to meeting all other general admission criteria, students must have at least a B average overall and a minimum 3.0 in the major, a commitment to social justice, and the concern, caring, and maturity necessary to be a helping professional. Applicants must be strongly recommended by the Siena College Social Work Program Director and/or the Coordinator of Field Education. The recommended deadline for applications to Adelphi's early admissions track is mid-to-late March.

All accepted students will be actively considered for the full range of financial aid that they may qualify for and that may be available including scholarships, loans, and other possible resources.

Siena B.A. in Social Work Program/Fordham University Masters in Social Work Degree Program (Advanced Standing)

The Fordham University Graduate School of Social Service will accept graduating seniors from the Siena College Social Work Program for early admission into the Advanced Standing Component of the M.S.W. Program. To be considered for early admission, in addition to meeting all other general admission criteria, students must have at least a B average overall and a minimum of 3.0 in the major, a commitment to social justice, and the concern, caring, and maturity necessary to be a helping professional. Applicants must be strongly recommended by the Siena College Social Work Program Director and/or the Coordinator of Field Education. The majority of the student's field placement work must be in direct practice. Deadline for submission of applications for the early admissions track of The Fordham University Graduate School of Social Science M.S.W. Degree Program is March 15 of each academic year. The Fordham University Graduate School of Social Service will set aside two places for Siena Social Work graduates in the entering Advanced Standing class each year. This does not, however, preclude the acceptance of more than two qualified students, should more students wish to apply.

Fordham University Graduate School of Social Service will provide a scholarship to one Siena College graduating Social Work student who is admitted through the early admission decision track (\$4,000 annually, \$2,000 per semester). The scholarship recipient must convey a commitment to working with an oppressed population as demonstrated through fieldwork and letters of recommendation. Scholarships will also be provided to any students who demonstrate financial need. All accepted students will be actively considered for the full range of financial aid that they may qualify for and that may be available including scholarships, loans, and other possible resources.

Siena B.A. in Social Work Program/Syracuse University Masters in Social Work Degree Program (Advanced Standing)

Syracuse University School of Social Work will accept graduating seniors from the Siena College Social Work Program for early admission into the Advanced Standing Component of the M.S.W. Program. To be considered for early admission, in addition to meeting all other general admission criteria, students must have at least a minimum overall G.P.A. of 3.0 as well as a minimum G.P.A. of 3.0 in the major, a commitment to social justice and positive social change, and a respect and appreciation for human diversity. Applicants must be strongly recommended by the Siena College B.S.W. Program Director. Deadline for submission of applications for the early admissions track of the Syracuse University School of Social Work M.S.W. Degree Program is February 15 of each academic year. An admission decision will be rendered by March 15. The Syracuse University Graduate School of Social Work will set aside two places for Siena Social Work graduates in the entering Advanced Standing class each year. This does not, however, preclude the acceptance of more than two qualified students, should more students wish to apply. There is no limit on the number of students who can apply for early admission.

Syracuse University Graduate School of Social Work will provide, to up to two students who are admitted through the early admission decision track, scholarship awards (equivalent to at least twelve credits for the academic year to be distributed between the fall and spring semester). Scholarship recipients must demonstrate activity in advancing the profession's agenda in social justice and/or human diversity and must be strongly recommended by the Siena College Social Work Program Director. Demonstrated financial need as well as academic merit will be considered in the award process. Early notification of scholarship awards is guaranteed to up to two students who have been selected for scholarship awards, provided that they meet the early admission decision deadline. Other early decision applicants will receive notification regarding whether or not they qualify for scholarship funds at a later date. All accepted students will be actively considered for the full range of financial aid that they may qualify for and that may be available including scholarships, loans, and other possible resources.

Special Programs

The Franciscan Center for Catholic Studies

Director: Dr. W.T. Dickens, Professor of Religious Studies

The Franciscan Center for Catholic Studies (FCCS) is an academic initiative of Siena College that provides a forum for exploring Catholicism in its historical, sociological, liturgical, and doctrinal complexity. In keeping with the Franciscan orientation of the College, the FCCS highlights certain dimensions of Catholicism's past and present embodiments. These include a commitment to social justice, reconciliation and peacemaking; appreciating the natural world; savoring beauty in the creative arts; and defining leadership as service to one's community. To support this mission, the FCCS sponsors or co-sponsors speakers; colloquia; theatrical, musical, and fine arts events; and study abroad.

Higher Education Opportunity Program (HEOP)

Siena co-sponsors The Arthur O. Eve Higher Education Opportunity Program of New York State. As a member institution, Siena is committed to the education of students who are academically and economically disadvantaged as defined by the guidelines of the State Education Department. Applicants to this program must be New York State residents. Students who qualify for admission into the HEOP program receive counseling and tutoring assistance, as well as financial support for their college expenses. Supportive services include a summer session prior to freshman year and continuous academic advising

during the completion of the degree program. Candidates for the HEOP program must complete the application, or the Common Application and the supplemental form, by February 15.

Kieval Institute for Jewish-Christian Studies at Siena College

The Kieval Institute for Jewish-Christian Studies at Siena College was founded in 1983 with a gift from Charles and Thelma Buchman, long-time benefactors of the College. The Buchmans assisted in the support of the program and created an endowment to enhance the Institute's work.

The Institute provides a major resource in the Capital Region for the study of Judaism and its historical interrelationships with Christianity. Increased understanding and appreciation of the two faiths come through workshops, seminars and speakers on such topics as "Conflicts Between Jews and Christians," "Vatican II and the Jews — 20 Years After" and "The Church and Israel: The People and its Land."

With the support of the Town of Colonie Jewish Association, the Kieval Institute initiated the annual Town of Colonie Judaica lecture in 2006. Dr. Peter S. Zaas, Professor of Religious Studies at Siena, is the director of the Institute, with a Board of Directors that includes civic and academic leaders of the Roman Catholic, Jewish and Protestant communities. In 2010 Rabbi Rena Kieval became the third chair of the Kieval Institute.

The Martin Luther King, Jr. and Coretta Scott King Lecture Series on Race and Nonviolent Social Change

The Martin Luther King, Jr. and Coretta Scott King Lecture Series on Race and Nonviolent Social Change was established in 1988. It preserves the legacy of the nonviolent human rights movement as it was expressed in the life and teachings of Dr. Martin Luther King, Jr. and has been continued after his death by Coretta Scott King. This lecture series explores how problems such as racism, sexism, classism, militarism, and prejudice in our nation and throughout the world can be confronted effectively through dynamic efforts informed by principles of social justice and nonviolent action. Speakers in the series have included Harry Belafonte, Eleanor Holmes Norton, Allan Boesak, Ruby Dee, Robert Coles, Sara Lawrence-Lightfoot, Elie Wiesel, Henry Louis Gates, Jr., Marian Wright Edelman, Jonathan Kozol, Cornel West, Johnnetta B. Cole, Lani Guinier, Eric H.F. Law, Bernice King, Joycelyn Edwards, Calvin Butts, Morris Dees, Julian Bond, Bernice Johnson Reagon and Michael Eric Dyson. Lecturers are chosen by a board representing Siena and religious and civic leaders in the Capital Region. Additional information about this lecture series is available at www.siena.edu/mlk.

Reinhold Niebuhr Institute of Religion and Culture

The Reinhold Niebuhr Institute of Religion and Culture, an interdisciplinary, ecumenical, and interfaith community-oriented program, is named in honor of Reinhold Niebuhr, the 20th century Protestant theologian who spent a lifetime exploring the implications of religious faith for the public order. It sponsors lectures, workshops, and discussions on topics in which the interests of religion, ethics, and society intersect. In recent years these have included nuclear disarmament, economic justice, interracial justice, and gender and society.

Among the distinguished lecturers and artists the Institute has sponsored or co-sponsored are: J. Bryan Hehir, Robert Jay Lifton, Alan Geyer, Kenneth Himes, Shirley Chisholm, Gar Alperovitz, Bishop Thomas Gumbleton, Bishop C. Dale White, Mark Gerzon, Coretta Scott King, James B. Nelson, Mary Frances Berry, Michael Kimmel, Pam McAllister, C.T. Vivian, Joseph Lowery, Carter Heyward, Vinie Burrows, Will D. Campbell, James M. Lawson, Jr., Gene Sharp, Donald Woods, Margaret Randall, Cesar Chavez, Harry Belafonte, Nechama Tec, Jessica Stern, Sylvia Washington, Mark Taylor, David Kaczynski and Gary Wright.

Siena Leadership Institute

"Developing Leaders with Competence and Character"

The Siena Leadership Institute (SLI) complements Siena's traditional academic programs by preparing students to assume leadership roles and responsibilities in their communities through experiential learning and service opportunities. The SLI assists students in developing a sound character and establishing personal moral and ethical standards that are rooted in the Franciscan tradition; thus, empowering them to shape their own future and become tomorrow's leaders.

The Leadership Institute at Siena emphasizes the Franciscan values of service and community building, by encouraging students to become agents of change for improving their world through a commitment to service.

The SLI is a one-year experience for selected Siena Sophomores, designed to develop skills and abilities that will enable participating fellows (students) to be more effective leaders and citizens in their communities and continue to live the Franciscan ideals by serving as voices of reason, conscience and compassion in society. In this intensive and personalized program, students will learn about leadership through workshops, seminars, experiential learning activities, community service and mentoring relationships.

Siena Research Institute

Dr. Donald P. Levy, *Director*

Founded in 1980, the Siena Research Institute (SRI) conducts regional, statewide and national public opinion and expert surveys on business, economic, political, social, academic and historical issues.

Each month, Siena Research Institute (SRI) conducts a statewide survey used to measure New York State consumer confidence. Based upon the University of Michigan's national consumer sentiment index, SRI's monthly survey of consumer confidence is the only study of its kind that measures willingness to spend in New York State. SRI also produces a quarterly report on consumer confidence in nine metropolitan statistical areas (MSAs) - Albany, Binghamton, Buffalo, Mid-Hudson, New York City, Rochester, Syracuse, Utica and, added in January 2009, Long Island - that is reported in *The New York Times* and several regional newspapers, and relied upon by many businesses and government agencies.

Each month SRI also conducts the Siena New York Poll, a "snapshot" poll of registered voters. This monthly survey gives voters the opportunity to voice their opinions on political and social issues impacting New York State residents. Past topics have included favorability of public officials, likelihood to vote for specific candidates and policy questions such as support or opposition for licensing of illegal immigrants and the proposed Soda Tax. Widely cited by print, electronic and broadcast media, the Siena New York Poll is firmly on the pulse of politics among New Yorkers.

Recently SRI has broadened its mission in an effort to measure and chronicle "The Fabric of Life in New York." Components of that independent research agenda include: Siena New York Sport Poll, Life Satisfaction in New York, The Social Capital Study of New York State, and The Yearly Holiday Spending and Giving Study. This research has expanded into a web panel that stretches across geographies and demographics not easily reached in the past.

In a further effort to support the mission of the college, SRI launched the "Healthy Communities Program" in February 2009. This research focuses on self-assessment of health, actions that support that self-assessment and resources in the community that could foster healthy communities. The goal of this research is to bridge the gap between education and action.

SRI is frequently commissioned to conduct surveys for organizations, businesses, and local and state government agencies. Recent clients include: Healthcare Association of New York State, First Niagara Bank, Patricia Lynch Associates, Queens County District Attorney, NYS Bar Association, NYS Office for the Aging, Ellis Hospital, Behan Communications and St. Pius Parish.

Siena Research Institute is a member of the American Association for Public Opinion Research (AAPOR), and subscribes to its code of professional ethics and practices; the American Statistical Association (ASA) and the Association for University Business and Economic Research (AUBER).

Academic Support Services

Student Success and Academic Advising

Siena College recognizes academic advising as a critical component of the educational experience of its students. Academic advising is a process of problem-solving and decision-making through which a student explores and seeks information from professionals of the campus community. It is marked by a dynamic relationship between proactive students and advisor/mentors who act as teachers and guides in this interactive partnership. Students are assigned a faculty advisor in their declared major or for undeclared students, a faculty member in the School within which they are declared. In addition, the Student Success and Academic Advising provides professional advising to any student needing drop-in assistance, help with college procedures, advising concerns or when a faculty advisor is unavailable. In this way, the college facilitates high quality academic advising for all Siena students. We are located in Siena Hall 215.

SSAA—001. Siena Student Advantage 0-1 credits

The course content will vary depending on the focus of a particular section in a given semester. Some sections are designed as a college transition course; some are designed for students on academic probation; some are designed for student working as peer mentors; and some are designed as internal internships for students working with the professional staff in the Office of Student Success. This is a pass/fail course.

English for Speakers of Other Languages

Melody Nadeau, Ph.D., Assistant Director ESOL, Center for International Programs

ESOL—115. ESOL Communication (Intermediate) 3 credits

ESOL Communication (Intermediate) is designed to develop intermediate students' knowledge of American English classroom participation, reading, and writing conventions so that they can become fully engaged members of Siena's academic community. Students are required to take an Oxford Online placement assessment combined with a CaMLA writing assessment, and may register for 115 if their CEFR score is B1 or lower, or if they have a CEFR of B2 combined with a CaMLA writing score that is 29 or below. Students may repeat ESOL 115 once for credit. Through classroom discussions, presentations, and reflection papers, students gain confidence in listening, speaking, reading, writing, and providing peer feedback. Students are also introduced to the methods of doing research and citing sources. (ATTR: ARTS)

ESOL—120. ESOL Communication (Advanced) 3 credits

ESOL Communication (Advanced) is designed to develop advanced students' participation, reading, and writing conventions so that they can become fully engaged members of Siena's academic community. Through classroom discussions, presentations, and reflection papers, students gain confidence in listening, speaking, reading, writing, and providing peer feedback. Students are also introduced to the methods of doing research and citing sources. Students are required to take an Oxford Online placement assessment combined with a CaMLA writing assessment, and may register for ESOL 120 if their CEFR score is C1 or higher, or if they have a CEFR of B2 combined with a CaMLA writing score that is 30 or above. Permission of Instructor. (ATTR: ARTS)

ESOL—220. Academic Writing for ELLs 3 credits

Academic Writing for ELLs is designed to enhance students' knowledge of American English academic writing conventions and to facilitate improvement in their writing skills across written genres by exploring the processes of writing: comprehending, analyzing, and evaluating college-level texts; inventing, drafting, and revising; and seeking, providing, and responding to constructive feedback. Students also explore the methods of doing research and citing sources. Through classroom discussions based on assigned readings, in-class activities, writing assignments, peer reviews, and reflection papers, students are expected to gain confidence in writing, revising, and providing feedback to others' writing. Students are required to take an Oxford Online placement assessment combined with a CaMLA writing assessment. Permission for registration is given if the CaMLA score is 35 or above, or if students have previously mastered ESOL 115 or 120. Permission of Instructor. (ATTR: ARTS)

Tutoring Services

Tutoring Services are available to all currently registered students at Siena College. The office is located Siena Hall 215. Tutoring Services provides group and individual peer tutoring during both the fall and spring semester. Summer tutoring is available by special arrangement.

While most students view tutoring as a mechanism for 'fixing' difficult coursework, Tutoring Services can be much more proactive in a student's academic success. Participating in a group tutoring session can clarify formerly difficult concepts, provide additional study time and connect students with study partners. When used this way, tutoring enhances academic performance and improves success rather than just 'fixing' problems. Students, therefore, are encouraged to use Tutoring Services' Group Sessions often.

Students may attend any or all of the group tutoring sessions offered. This service is free to all currently registered students at Siena College, i.e. part-time or full-time, matriculated or non-degree.

The Writing Center

The staff of the Writing Center offers free, one-on-one assistance to all students, faculty, and staff at Siena. Knowledgeable, highly-trained, and compassionate peer writing consultants provide objective, critical responses to assignments and projects across the disciplines and at any stage in the writing process. Regardless of the assignment, consultants can help writers generate ideas, organize an argument, clarify purpose, or identify an audience. We teach strategies for writers to use when revising their own work, and though we do not edit, correct, or "fix" technical problems, we can address those that reoccur throughout a text. We strongly encourage writers to visit the Writing Center several days prior to when the project is actually due and to plan for follow-up appointments.

Our staff is available to work with ALL writers: less-experienced and apprehensive writers who may need to work on basic writing skills and techniques as well as more advanced ones looking for constructive feedback. For students reading, writing, and speaking English as a second language, our staff includes a professional ESL instructor who can help with any type of assignment or even with non-academic communication issues.

Additional information about our mission, services, and hours of operation is posted at www.siena.edu/writingcenter. The Writing Center is located in L09 on the lower-level of the Standish Library. Walk-ins are welcome, but appointments are highly recommended and can be scheduled online or by telephoning 783-4125.

Career Education and Professional Development Office (CEPD)

Choosing and finding a career takes time, effort and work, but the rewards are unlimited! The Career Education and Professional Development Office (CEPD) serves all Siena students as they pursue their career and postgraduate options. The office serves all class years, majors, and alumni in achieving their career and professional goals. Services provided by CEPD can be utilized throughout each step in the discovery process. Even if just starting out, students are encouraged to meet with professional career counselors to help them "figure it all out." **Start early and come often** to the CEPD.

There are a wide range of services, programs and resources offered. Online self-assessment instruments are available to assist students with deciding on a major or career path. CareerSaint, the recruiting database, lists opportunities for on and off campus employment, work study and internship positions, as well as on campus interviews. Appointments can be scheduled with professional counselors to discuss any career topic including: choosing a major, preparing a resume/cover letter, searching for an internship or professional position, preparing for interviews or applying to graduate school. Student Peer Career Advisors can assist with resume writing and general search questions. Career education programs and events including the annual Spring Career, Internship and Graduate School Fair are an example of the career development benefits offered to students. In addition, CEPD offers a one credit Career Exploration course which is open to all students.

You can locate us in Foy Hall 203, on the first floor next to the theatre. More information and resources can be found on the internal website at <https://community.siena.edu/careercenter>. Appointments can be scheduled by visiting CareerSaint at <https://siena-csm.symplicity.com/students/> or calling 518-783-2339. The education of a lifetime will take you many places, and CEPD wants to help you get there.

Student and Community Service Departments

Athletics Program

Athletics and recreation at Siena College are an integral part of the educational experience. Siena's varsity teams compete at the NCAA Division I level as members of the Metro Atlantic Athletic Conference. The department has a rich history of producing championship teams and student athletes who excel both in and out of the classroom.

Siena sponsors 22 NCAA Division I sports: baseball, men's and women's basketball, men's and women's cross-country, men's and women's indoor track, men's and women's outdoor track, field hockey, men's and women's golf, men's and women's lacrosse, men's and women's soccer, softball, women's swimming and diving, men's and women's tennis, women's volleyball, and women's water polo.

The athletic department has been recognized annually for the academic accomplishments of its student athletes. Siena College has ranked among the country's elite universities in the NCAA's first 11 Graduation Success Reports, posting an average GSR of 94.3% which ranks in the top-10% nationally.

Athletically, the men's basketball team has been a source of great pride to the College and Capital Region community. The Saints have competed in six NCAA Tournaments (1989, 1999, 2002, 2008, 2009, 2010) and have won five MAAC Tournament Championships. Siena's three-peat from 2008-10 made the Saints the only Division I team in the country to win both their conference regular season and tournament championships in each of those three seasons. Not only have the Saints advanced to the NCAA Tournament on multiple occasions, but the program has also achieved a strong level of success in winning four contests including three in the First Round. In 2009, the Saints topped Big Ten power Ohio State 74-72 in a double overtime thriller in the First Round of the NCAA Championships in Dayton, Ohio before losing at the wire to top overall seed Louisville. In 2008, the Saints also advanced to the Second Round, defeating SEC member and #4 seed Vanderbilt 83-62 in Tampa, Fla. In 1989, Siena defeated #3 seed Stanford in Greensboro, N.C. Recently, the Saints have continued to build upon their postseason success in the College Basketball Invitational. Siena has competed in the CBI twice in the past three years, and defeated Fresno State in the Championship Series in 2014 to capture the school's first Division I national postseason tournament title. The Siena men have also enjoyed great success in the postseason NIT, appearing in five Tournaments highlighted by a magical run to the semifinals at Madison Square Garden in 1994.

The men's lacrosse team has also emerged as a national player. Over an eight-season span from 2007-14, the Saints won 87 games which was tied with perennial national power North Carolina for the eighth most victories in the Division I ranks. Siena captured its first three MAAC Championships during this time, advancing to the NCAA Tournament for the first time in program history in 2009 before returning again in both 2011 and 2014. The Saints won the MAAC Regular Season Title six times from 2007-14, and advanced to six consecutive MAAC Championship Games from 2009-14.

The women's basketball team has had great success as well. Siena has won or shared the MAAC regular-season title seven times since joining the conference in 1990. In 2015, the Saints advanced all the way to the finals of the Women's Basketball Invitational and posted the second greatest turnaround in all of Division I. The Saints won the 2001 MAAC Championship to earn their first NCAA appearance and have appeared in the WNIT three times (1999, 2002 and 2003). The Saints beat Big East members Georgetown and Seton Hall in the first rounds of the WNIT in 1999 and 2003 respectively.

Additionally, the volleyball, women's golf and baseball teams have won multiple MAAC Championships. In 2014, the volleyball team captured its ninth MAAC Championship defeating rival and No. 1 seed Marist in an epic Championship match. The Saints made their fifth NCAA Tournament appearance under head coach Garvey Pierre where they lost to eventual National Champion Penn State.

The baseball team won its fifth MAAC Championship in 2014 and also captured the program's first victory in the NCAA Tournament, defeating nationally-ranked Dallas Baptist in the Fort Worth (Texas) Regional. The Saints also won the title in 1995, 1996, 1997 and 1999 under legendary head coach Tony Rossi who is the second longest tenured baseball coach in Division I.

Women's golf has won 13 MAAC championships in the last 16 years and has made two trips to the NCAA tournament once in 2012 and again in 2014.

The men's basketball team averages close to 7,000 fans per home game at the Times Union Center in downtown Albany, just minutes from campus. The community and student support is among the best in the nation for a Mid-Major program and the Saints regularly are among the top drawing programs in the Northeast.

Along with the Times Union Center, other athletic facilities include: an artificial turf field on-campus which serves as home for the field hockey, men's soccer, and men's and women's lacrosse teams, along with various intramural activities. The newly refurbished 2,000-seat Alumni Recreation Center is the home facility for the women's basketball and volleyball teams.

Siena's intramural program offers full experiences in a variety of athletic areas. Typical offerings include: basketball, flag football, volleyball, softball, futsal, team handball, dodge ball, zumba and others. Competition is between students and nearly 40 percent of the student body participates.

The Marcelle Athletic Complex is home to all recreational activities that take place on campus. The MAC features a field house with four full-size basketball courts, an elevated running track, three racquet sports courts, aerobic room, fitness area featuring Atlantis weight lifting equipment, Cybex aerobic equipment and a swimming pool for both competitive and recreational swim.

Office of the College Chaplain

The Office of the College Chaplain ministers to the spiritual needs of Siena's students, faculty, staff, and alumni. It plays a crucial role in nurturing and communicating the Catholic and Franciscan identity of the College. As a Catholic educational institution, Siena strives to make conscious connections between faith and reason, between the quest for knowledge and the thirst for God, and between the examination of new ideas and an ever-deepening appreciation for the ancient wisdom of our Judeo-Christian tradition. As a Franciscan college, Siena grounds its approach to education in the conviction that the pursuit of truth in every academic discipline leads the seeker to the God of truth. St. Francis of Assisi believed, and his followers concur, that the exploration of the world in all its wondrous beauty and infinite variety is a prelude to divine praise, and everything that is genuinely human is a possible encounter with the God-made-human, Jesus Christ. The Chaplain's Office seeks to promote these Catholic and Franciscan values in higher education.

The Office of the College Chaplain is located behind St. Mary of the Angels Chapel and adjacent to Hines Hall. Office hours are from 8:30 a.m. to 4:30 p.m., Monday through Friday. St. Mary of the Angels Chapel is open 24 hours a day for personal prayer and meditation. In addition, the Chapel of the Holy Name of Jesus, located in the Sarazen Student Union, provides a more intimate setting for quiet reflection, and is open during the regular operating hours of the Student Union.

The celebration of the Eucharist is the heart of the spiritual and religious life of Siena College. The Eucharistic Liturgy is regularly celebrated on the Sundays of the academic year at 11:00 a.m. and 7:00 p.m. in St. Mary of the Angels Chapel, and at 5:00 and 10:00 p.m. in various residence halls. Weekday Masses are celebrated at 12:30 p.m. in St. Mary of the Angels Chapel. All are welcome to these celebrations.

Catholic students are encouraged to take an active role in the liturgical ministries of the Chaplain's Office, and to serve the worshipping community as Lectors, Eucharistic Ministers, Greeters, and Acolytes. Students with musical ability are welcome to join the music ministry of St. Mary of the Angels Chapel. Students of other religious traditions who wish to worship with their own faith communities or to seek the spiritual counsel of their respective spiritual leaders should contact the Chaplain's Office for appropriate referral and, if needed, assistance with transportation.

Building a Christ-centered community of faith is central to the mission and ministry of the Chaplain's Office. Working closely with the community of friars at Siena College as well as the Franciscan Center for Service and Advocacy, the Chaplain's Office offers a wide variety of programs and events that serve to make the vital connection between Christian faith and everyday life on a college campus. Through

liturgical celebrations, prayer services, small faith-sharing groups, bible study, retreat experiences, community service opportunities, and the Rite of Christian Initiation of Adults (where students sponsor other students who wish to enter more deeply into the life of the Catholic Church), the Chaplain's Office hopes to create an environment where one can grow in deep personal relationship with God, in intelligent reflection on one's faith, in active witness to the good news of Jesus Christ, and in selfless service to one's sisters and brothers in the world.

Center for Counseling and Student Development

Overview of the Center

The Center for Counseling and Student Development (CCSD), strives to help students cope more effectively with personal, emotional and situational barriers to learning; improve students' adjustment to unavoidable stress; and contribute to their personal growth and development by providing psychological support and guidance. This is accomplished through the provision of counseling services for enrolled students and secondarily by offering psycho-educational programming and consultations to the campus community.

Why might a Student meet with a Counselor?

College life brings many opportunities as well as challenges that are often stressful. Students experience those challenges in a number of different areas—some students have difficulties adjusting to the changes in academic demands from high school to college, others experience confusion in deciding on a major or career path, and still others struggle with issues in their families and relationships. Most students feel anxious, depressed, or confused at some point during their college experience. Support often comes from friends, family members or significant others, but in many cases a trained professional can be the most effective source of support.

In fact most of us, at some time in our lives, feel overwhelmed and could benefit from talking with someone objective who won't judge us, and who will help us to see new alternatives. Thus, the primary goal of the Center for Counseling and Student Development is to provide students with psychological support and guidance toward finding more effective coping strategies. Counseling can be a key experience in the attainment of the skills essential to academic and personal success.

The Center is available to all registered students. There are no fees for our services as the cost is already built into your yearly fees. Faculty and staff may request a consultation.

How To Make An Appointment

Appointments may be made in person or by calling 518-783-2342. We do not make appointments through email. We are located in Foy Hall, Room 110.

Office hours are:

8:30-4:30 p.m., Mon.-Fri. (closed 12-1)

8:30-4:00 p.m., in the Summer (closed 12-12:30)

Appointments are scheduled as soon as possible. Be sure to let our receptionist know if your situation is urgent, and you need to speak with a counselor immediately.

In certain situations, the needs of a student are beyond what the Center staff can provide. In those instances, our role is to facilitate access to the appropriate services. Please note that services are limited during the summer months.

Statement of Confidentiality

Information shared in a counseling relationship is confidential with the following exceptions: when your counselor believes you are in imminent risk of harming yourself or another person, or when your counselor believes that a child is being abused. We must also comply with court orders to release information. In all instances every effort is made to do so in ways that will be least disruptive to our clients. Additionally CCSD may at times disclose information that could impact the safety of the larger college community.

For more information please visit our website at: http://www.siena.edu/counseling_center.

Damietta Cross-Cultural Center

Damietta Cross-Cultural Center's mission is to foster campus-wide, cross-cultural competency in the service of a just world. At the heart of the Center's mission is the acknowledgement that we are all members of the human family regardless of our race, ethnicity, nationality, sex, gender expression, sexual orientation, religious affiliation, ability and socio-economic status. The Damietta Cross-Cultural Center commits to promote an inclusive and welcoming environment for all members of the Siena community. Our professional and student staff offer cultural, educational and social programs to the campus community which aims to enhance students' cross-cultural competency, address inequality in our world, and lead students to become agents of social justice. The Damietta Cross-Cultural Center also works closely with the cultural clubs on campus including Asian Students Association, Black & Latino Student Union, Muslim Students Association, Latinos Unificando Nuestra América, Pride – Gay Straight Alliance and S.O.L.I.D. Step Team.

About Damietta: Damietta was a city in Egypt where St. Francis of Assisi and Sultan Malik al-Kamil met in September of 1219. For several days in the midst of war between competing cultures and religions, these two men sat down together and searched for common ground. Their meeting changed their attitudes, altered their perspectives and influenced their subsequent behavior. It left them mutually enriched. It also left us with a legacy of respectful and meaningful dialogue. It is this 800 year-old tradition, bestowed on us by a Catholic Christian saint and a Sunni Muslim sultan, which the programs and services of the Damietta Cross-Cultural Center seek to honor and advance at Siena College.

Within the Christian tradition, there are duties and responsibilities associated with being a member of the human family. The Gospel challenges its adherents not only to love their neighbors but to love their enemies as well. St. Francis called *all* whom he met his brother and sister, thereby expressing two convictions. First, we are all related; we are part of one human family. Second, because we are brothers and sisters, we are called to love one another. It is this profoundly relational dynamic that animates the work of the Damietta Cross- Cultural Part of the Division of Student Life, the Damietta Cross-Cultural Center is located in Sarazen Student Union, Room 207.

The Franciscan Center for Service and Advocacy

The Franciscan Center for Service and Advocacy promotes and upholds the Franciscan mission of the college by engaging students and the Siena community in various service and advocacy programs, particularly among the poor and marginalized.

FCSA offers extensive volunteer and advocacy opportunities with various agencies and organizations in the Capital Region which allow the Siena community to discover, experience, and respond to the needs in our local community and to be agents of change and advocates of justice.

Our SIENAserves Immersion Program offers students, faculty, and staff transformative experiences in communities, both close to home and abroad, struggling with poverty, injustice, and inequality. Philadelphia, West Virginia, Nicaragua, Haiti, and Jamaica, are just some of the places in which SIENAserves.

Providing one-on-one mentoring between inner-city youth of the Capital Region and Siena students, the Mentoring Program is an integral component of the Franciscan Center. It provides Siena students and their "littles" with enriching experiences that impact a lifetime.

A minor in Franciscan Service and Advocacy, which includes a seminar and internship, is offered as part of the College's academic programming. This minor is suited for any course of study and will integrate Franciscan values with hands-on direct service with intellectual and spiritual reflection.

For more information about the Franciscan Center for Service and Advocacy (FCSA), please contact the Director at (518) 783-2333 or visit siena.edu/fcsa.

International Student Services

International students receive individualized support through the Center for International Programs. The Center issues immigration documentation necessary for a student to obtain an F-1 status and complying with all applicable regulations. In addition, the Center helps students build networks throughout the

campus to access services from Community Living, Career Education and Professional Development, Health and Counseling and Academic Success. The Center provides English language support, coordinates a mentor program through the Writing Center and monitors the academic progress of each international student. Workshops are offered on obtaining work authorization for internships, post-graduate employment, and assistance is provided in securing on-campus jobs and obtaining a social security number to receive payment. . An Orientation is held for new international students at the beginning of each semester. An International Student Association provides numerous social events and opportunities. International students are expected to inform the Center for International Programs of all changes in residency, academic status or employment.

The Office of Accessibility

Siena College values the uniqueness of all students and is committed to supporting students with documented disabilities in order to provide them with reasonable accommodation that meets their individual needs. Students with disabilities are encouraged to register with the Office of Accessibility in Foy Hall upon acceptance to the college. Although students may choose to register at any time, accommodations are not retroactive. It is recommended that students register prior to July 15th for fall enrollment or December 15th for spring enrollment. To register with this office, a student must complete a student data sheet, release form, and provide current, comprehensive documentation of his/her disability. The office will determine the appropriateness of all documentation. Documentation must adequately represent the student's current level of functioning as well as demonstrate the existence of a disability as required by the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973.

All information disclosed during the registration process is considered private and will not be released without the student's written permission. The college provides reasonable accommodations to all students with disabilities. Students are encouraged to meet with the Director of the Office of Accessibility to develop an individualized accommodation plan.

Sr. Thea Bowman Center for Women

The Sr. Thea Bowman Center for Women, located in new Hall, Room G33, is a welcoming place complete with comfortable chairs, couches and refreshments. The Center provides leadership and education to members of the Siena College community by promoting awareness about gender issues affecting women and men. Grounded in the Franciscan and Catholic traditions, the Center provides information, education and referral to students with the goal of enhancing the educational, personal, professional, and spiritual growth of women at Siena.

Annual and on-going events: Breast Cancer Awareness and Fund Drive, Movie Series, Graduate School and Family Choices Forum, Rape Aggression Defense (RAD) course, Kickboxing and Yoga classes, Supporting Fair Trade Sale, Make a Card for Someone in Need, Cinderella Project, Women and Alcohol, Women and Eating Disorders and programming in the residence halls.

For more information, please call (782-6109) or visit the web site at www.siena.edu/womenscenter.

Student Life

A major influence on the total development of the Siena student is the campus environment that fosters the growth of the body, mind and character of each individual. There are a wide variety of educational, social and cultural programs that provide opportunities for experiences that complement the academic program of the College and that foster the acquisition of a liberal arts education.

To assure that the campus environment remains one conducive to student development, the Code of Conduct for Students sets forth the minimal principles that should guide the behavior of all students, so that the campus serves as a place where students can pursue knowledge in an atmosphere conducive to individual growth. The Code is published in the student handbook, Siena Life. Each student is expected to obtain a copy of the current handbook and know its contents. Siena Life is also available on the web at www.siena.edu/sienalife.

Orientation for New Students and Families

Orientation is designed to acclimate new students and families to the campus environment. The extended orientation program consists of three phases. New students participate in Phase One in the days that lead to the start of the fall semester. During this time students are moved into the residence halls, commuters are checked in at the Sarazen Student Union, and all first year students participate in a four day introduction to the Siena community, its resources, and their peers. Phase Two, an optional program, consists of both on and off campus activities throughout the day before classes begin. Phase Three, Family Weekend, welcomes the parents and families of the class back to campus in early October.

Transfer students are also strongly encouraged to attend the Transfer Student Orientation Program designed specifically for them. This single day program includes opportunities to learn more about campus services and how to access them, meet other transfer students and members of the college community. Notification about this program is available on the college website and via direct mail to confirmed transfer students.

Community Living

Siena College provides a variety of on-campus housing accommodations in Hennepin, Hines, Padua, Plassmann, Ryan, Snyder and the Townhouses. First year students are typically assigned to doubles, triples and quads in Hines, Plassmann and Ryan. Returning students will have the opportunity to select from all remaining housing in doubles, quads and 4, 6 or 8 person townhouses.

The Community Living staff is charged with fostering a safe and healthy living environment on campus that enhances the Franciscan, Catholic, and academic mission of the college. The Director of Community Living oversees the Community Living program at Siena. The Assistant Directors of Community Living collectively coordinate educational and programming efforts, along with housing assignments, vacation closings and card access. In each residence area, there is a Residence Director, a live-in professional staff member charged with the administrative responsibility for all residents and the facility. Additionally, they provide personal, social and academic guidance to assist with student concerns/development. Resident Assistants are returning student leaders residing in each residential area who promote the College/Departmental mission by serving as a resource to students through programming, making referrals, and serving on duty. Friars in Residence are men who reside in each residence hall and provide support for both resident students and the Community Living staff. The Facilities staff provides a safe and clean environment for the common areas.

Student eligibility for on-campus housing is determined at the point of admission to the College. Housing spaces are allocated each year for new freshmen and, to the extent spaces remain available, for new transfer students. Acceptance of admission to the College as a resident student indicates acceptance of the offer of housing by the College.

To the extent space is available, it is expected that resident students will live in college housing and participate in a College board plan for the entire time of their enrollment at the College. Exceptions to this residency requirement include: students admitted to the college as commuters and residing within a 60 mile radius, independent students, and others who receive a written waiver prior to matriculation from the Assistant Vice President for Admission. Each year students are required to sign a housing license which is binding for one academic year (fall and spring semester) except for students graduating at the end of the fall semester, studying abroad, or entering residence for the spring semester.

If you wish to appeal the residency requirement at any time you must submit a Petition for Release form to the Assistant Director of Community Living. The appeal should be a request to be contractually released from the Housing/Food Service requirement. Reasons for appeal may include but are not limited to: particular medical health needs, changes in your personal or financial circumstances, or to review a first year freshman's request to change to commuter status as defined by the student handbook, Siena Life.

Commuter Students

Commuting students are an important part of the Siena College life. Commuting students become our outward diplomats to the local community.

Commuter Services include:

- enrollment in the Commuter Council composed only of commuter students
- special administrative mentor in the Office of Student Success and Academic Advising
- representative on the Student Senate and Student Events Board

Special Activities for Non Resident Students include:

- Special Commuter Welcoming Day
- Time Management Workshops designed for students who work off campus
- Discussion groups dedicated to various topics including:
 - Work Life Balance
 - Local internships and career opportunities
 - Upper Class Commuter Success Tactics

Student Activities

The program of extracurricular and co-curricular activities is sufficiently varied to offer a wide appeal. There are more than 70 student organizations chartered by the Student Senate.

The Promethean, the student newspaper, Saga, the yearbook, and Pendragon, the literary magazine, provide publication opportunities. WVCR-FM, the campus radio station, provides opportunities in broadcasting, and Stage Three offers experiences in acting, stage management and production.

The student activities closely aligned to academic life include, but are not limited to, the Political Science Society, the Accounting Students Association, the Education Club, the History Club, Harvard Model United Nations, the Finance and Business Societies, the Biology and Chemistry Clubs, and the Computer Science Club.

Siena sponsors club sports programs that compete with teams from other colleges and universities. Some of the club sports that have been offered include men's hockey, rugby, karate, equestrian, and volleyball. The men's club hockey team has been a fixture in postseason play in the past.

Weekend Activities

Student organizations, Community Living staff, the Damietta Cross-Cultural Center, Class Councils and the Student Events Board regularly sponsor events throughout the academic year that include on campus performances of musicians and entertainers, dances, dinners, speakers, and a variety of community social events. In addition, many of the student groups and departments host a variety of off-campus events in the surrounding communities.

Significant activities each year include New Student Orientation, Family Weekend, Winter Weekend, Siblings' Weekend, Charity Week, and Sienafest.

Dramatics

Stage Three, the campus theatre company, presents four major productions and a series of special events in cooperation with the Department of Creative Arts Theatre Program. The shows are cast and staffed from the Siena community and are directed and designed by professionals from Siena's theatre faculty, guest artists and qualified students. The use of guest artists in various capacities provides students with the opportunity of observing and interacting with theatre professionals from outside the campus community in the production process.

Members of Stage Three come from almost every major and are involved not only in campus productions but also in community service projects, presentations and workshops.

Stage Three is governed by a five-member board, nominated and elected by the general membership. Artistic direction and advisement are provided by the Theatre Program faculty and staff.

Stage Three members participate in the season selection process with the Theatre Program faculty and strive to achieve a diverse offering of theatrical productions each year. Recent productions include Doubt, A Midsummer Night's Dream, Droid, How I Learned to Drive, The Diary of Anne Frank and the world premieres of Monster Island and Abbotts' Dance. Stage Three will also produce a performance that reflects on positive goals for campus life at Siena for the new student Orientation in the fall.

Music

In addition to its regular academic offerings the music program at Siena also offers opportunities for students to participate in orchestral and vocal ensembles in public performance. The Siena Chamber Orchestra and the Siena Chorus are two examples of courses offered for credit and designed with public performance as course objectives.

The Creative Arts Department cooperates with Stage Three, the student theatre company, in producing musical works from the American musical theatre.

In support of extracurricular activities, the department sponsors field trips each semester to New York City arts events such as opera, ballet and Broadway shows.

The Siena Music Series and the Franciscan Chamber Orchestra bring professional musicians to the campus to present concerts and to offer workshops for students. The Music Series collaborates with other professional groups in the Capital region and has performed at the Troy Music Hall and the Cathedral of the Immaculate Conception.

Student Government

Students may take an active role in campus affairs through involvement with the Student Senate, Student Events Board, Hall Councils or one of 70+ student organizations.

The Student Senate includes 23 elected or appointed representatives from the classes, residence units, the commuting population and from the student body at large. The senate represents the student body with matters concerning student life on campus.

The Student Events Board consists of 32 elected or appointed representatives and coordinates many extracurricular and co-curricular activities on campus.

The Residence Hall Association and hall councils serve as the liaison body for residential students and the Siena staff and administration. RHA strives to provide quality programming and engagement opportunities for residential students and to advocate for the needs of residential students.

Dining Services

Lonnstrom Dining Hall

During the academic year when the residence halls are open, Lonnstrom Dining Hall provides meals for students. A variety of meal plans are available to resident and non-resident students.

Massry Commons in Snyder Hall

Massry contains a convenience store and dining facility. The dining facility is open for to-go breakfast and for dinner, featuring a full buffet menu that accommodates the various tastes of Siena's community. The convenience store is available to stock up on items for your living space such as toiletries, snacks and beverages.

Health Services

The Siena College Health Service provides medical care for common health problems, health maintenance and health education. Services are provided by certified nurse practitioners in collaboration with a physician consultant, and registered professional nurses. The Siena Health Service Office is located on the lower level of the Marcelle Commons Building in Townhouse Complex. Clinic hours are Monday-Friday 8:30 a.m. – 4:30 p.m. while classes are in session. For more information, please contact the Health Service at (518) 783-2554.

The Sarazen Student Union

The Sarazen Student Union is the facility available for the extracurricular activities program and an area in which students can relax, socialize and study. It includes spacious lounges, meeting rooms, internet stations, Casey's, Student Lounge, Promethean, SAGA Yearbook, student government offices, multicultural center, commuter lounge, Information Desk, the Post Office, the Damietta Cross-Cultural Center, Community Living, Campus Programs Office, Saint Card Office, and the Office of the Vice President for Student Affairs. The Sarazen Student Union is open daily except during academic holiday periods. Casey's offers a coffee house, bakery, snacks, deli, beverages, and sandwiches and salads.

Motor Vehicle Registration

All vehicles must have a Siena College permit to park on campus. Students must park in designated lots. See "Siena College Traffic Rules and Regulations" for detailed information and a map. The Traffic Rules and Regulations can be found on the Siena College website under Public Safety. A hard copy may also be obtained at the Department of Public Safety. Resident freshmen are not permitted to have a vehicle on campus. A request for an exception to the College's, "No Resident Freshmen with Cars Rule," may be requested from the Director of Public Safety. Exceptions are granted for medical reasons (for students to obtain medical treatment) and for employment (normally for 20 hours of employment per week). All resident freshmen exceptions must be requested and approved prior to bringing a car on campus.

Registration of Motor Vehicles

4. All students must register their motor vehicles with the Department of Public Safety. Upon presentation of a State Department of Motor Vehicles registration, your college I.D. and the pre-registration form, a parking permit will be issued. The permit must be affixed to the rear side window on the driver's side of the vehicle.
5. There is a registration fee required for each vehicle registered.
6. Registering the vehicle of another student, for any reason under a false name, will be considered falsification of registration and subjects the individuals involved to a fine of \$100 each and the loss of the privilege of having a vehicle on campus.
7. Resident freshmen are prohibited from having vehicles on campus, and those found to have a vehicle being kept on campus without prior authorization are subject to a \$100 fine and disciplinary action.

Temporary Parking Permits

Temporary parking permits are issued in accordance with Siena's Parking Rules and Regulations. Resident freshmen must obtain permission for a temporary parking permit from the Director of Public Safety, prior to bringing a vehicle to campus. Temporary permits for freshmen must meet the same qualifications as a Resident Freshmen Parking Permit, that is medical and employment as explained above. Temporary permits, except for freshmen, may be obtained 24 hours a day, seven days a week, at the Public Safety Department on the North side of campus in the Plant Operations Building. Permits are issued to visitors and students who demonstrate need and who would otherwise be entitled to possess a regulations parking permit.

Traffic Appeals Committee

The purpose of this Committee is to hear appeals regarding tickets issued by the Department of Public Safety. The Committee consists of a member of the Administration, three students appointed by the Student Senate, and the Assistant Director of Public Safety as the Chair.

Students wishing to appeal a ticket issued to them should follow the procedures outlined on the Security Department's webpage, <http://www.siena.edu/publicsafety>.

Financial Aid

Desiring to place a college education within the reach of all deserving, qualified degree candidates, Siena College offers financial assistance in many forms. Financial aid to students is awarded primarily on the basis of need. The College gives consideration to scholastic ability in determining the amount of scholarships and grants awarded from College funding. Specifically, the College offers the following types of campus based assistance to full-time matriculating students:

1. Franciscan Community and Siena College Scholarships
Grants-in-Aid;
2. Funded Scholarships;

3. Federal/College Sponsored Supplemental Educational Opportunity Grants;
4. Federal/College Sponsored Perkins Loans;
5. Federal/College Sponsored Work-Study Program; and
6. State Sponsored Higher Education Opportunity Program.

To be considered for federal financial assistance (loans, grants, and/or college work-study), students must file the Free Application for Federal Student Aid (FAFSA), via the internet at www.fafsa.ed.gov. The CSS PROFILE form is not required. The recommended date for filing financial aid forms for incoming freshmen is November 1; for transfers it is March 1. All new and continuing students must file by March 1. Please note that renewal of financial aid is dependent upon the filing again of the FAFSA each year. As major changes may occur from year to year, check with a Siena College financial aid officer to be sure the necessary forms have been filed.

Grants and Scholarships from Siena Funds

Siena awards the following types of grants-in-aid and academic scholarships to full-time students requesting assistance. Students must submit the Free Application for Federal Student Aid (FAFSA) to be considered for any type of assistance, with the exception of Presidential Scholarships, Franciscan Scholarships, Mission Scholarships, and Siena Humanities in Medicine Scholarships.

1. Presidential Scholarships are merit awards, renewable annually based on a minimum 3.1 cumulative average. These scholarships are offered to distinguished high school graduates based on their high school curriculum, high school average, results of standardized tests and letters of recommendation. These awards are extremely competitive.
2. Siena offers other academic scholarships (Franciscan Scholarships and Siena Humanities in Medicine Scholarships) without regard for financial need, to incoming freshmen who have outstanding academic records. Renewal is based on maintaining a 3.1 grade point average. If you do not file the FAFSA, you must submit a written request to be considered for an honorary award.
3. Siena College awards grants to students with demonstrated need. In general, this type of award will be renewed annually, provided the student continues to demonstrate need, maintains satisfactory academic progress, and files the Renewal FAFSA by June 1.
4. Funded Scholarships: Unless otherwise noted, the following endowed scholarships are awarded by the financial aid committee as part of the financial aid packaging procedure. The scholarship criteria must be followed. In most cases, financial need, academic achievement and participation in extracurricular activities are considered in choosing award recipients.

The FAFSA must be filed in order for students to be considered for most of the following scholarships:

The AMSA Scholarship, established by Michael Bucci '73 and James Nealy, is awarded annually to an incoming freshman student who is the son or daughter of an employee of Armored Motor Service of America, Inc. Preference will be given to students in Armored Motor Service of America, Inc. operating areas, who demonstrate financial need, good academic standing and strong participation in extra-curricular activities. In the event that there is no student applicant from Armored Motor Service of America, Inc., the scholarship will be awarded to a student from New York State.

The Dominick J. Agostino Memorial Scholarship, established by his wife, Pat and his children Mary Beth and Ryan to honor the memory of Dom Agostino '68, is awarded annually to an incoming freshman. Preference is given to a resident student who is able to live at Siena because of this award.

The George I. Alden Scholarship fund was endowed through a challenge grant by the George I. Alden Trust and through the generous response of Siena's alumni and friends. The scholarship is awarded annually to students who demonstrate financial need.

The Christopher '89 and Lisa Gill '90 Alfieri Scholarship was established in 2014 to pay tribute to their parents and all their family members who have always recognized the value and importance that education plays in our lives. The scholarship is awarded to students with financial need.

The All Star Wine and Spirits Scholarship was established by Craig Allen '91 in honor of his "Siena Experience" and appreciation of the several students employed at All Star over the years. This scholarship will help continue to make the "Siena Experience" possible.

The Professor Roland A. Allen Memorial Scholarship has been established by Thomas P. Fehlner to honor the memory of an outstanding Siena Physics Professor who served as his first scientific mentor. The scholarship will be awarded based on academic merit and financial need to students who are interested in the physical sciences.

The Sara Allen and Julius and Jessica Bernard Scholarship is awarded annually to residents of Clinton, Essex, Washington and/or Warren Counties in New York State in good academic standing who demonstrate financial need.

The Alonge Family Scholarship is awarded annually to a student showing academic and career potential. The Scholarship was established by Guy Alonge, Jr. in honor of his family.

The Guy '54 and Dorothea Alonge, Jr. Scholarship established in 2008 by their son, Guy Alonge III to honor his parents' devotion to family, love for Siena and contributions to the career development of Siena students. The award is based on financial need and made to students from Columbia County, New York.

The Thomas L. '89 and Christine E. Amell Scholarship, created in 2012 by Siena Associate Trustee Chair, Thomas L. Amell '89, and his wife, Christine. The scholarship is based on financial need with a preference given to commuter students who work part time to fund their education.

The Men and Ladies Ancient Order of Hibernians Capital Region Memorial Scholarship honors men and women who have contributed to Irish America life and culture, and Christian values. Its first and most important Hibernian honoree is Fr. Henry Tansey, M.H.M. In addition, the scholarship honors Trooper William Dooley, founder of the New York State Police Pipe Band, Fr. Capistran J. Hanlon, O.F.M., division chaplain for many years, and Andrew M. Martin '94, loyal member. Each honoree promoted Christian values and community service. The scholarship is aimed at helping upper classmen and/or transfer students living in the capital district and based on financial need.

The Willard T. Anderson Scholarship was established in 2001 to honor the late Willard T. Anderson, owner and chairman of The Anderson Group. The scholarship is awarded annually to students who demonstrate financial need. Preference will be given to a student or students with a physical disability.

The Mary Burke Apps '53 Scholarship shall be awarded annually to entering or currently matriculated students in good academic standing who have demonstrated financial need with a preference to female students from Schenectady County.

The Arkell Hall Foundation Scholarship is awarded annually to students who graduated from Canajoharie High School or a surrounding community in Montgomery County, New York. This award is renewable and is based on financial need.

The James Barba Family Scholarship was established in 1991 by James Barba, Sr. '56. This scholarship is awarded annually to students who demonstrate financial need and academic ability.

The Tim '79 and Anne (Hein) '80 Barker Scholarship was established in 2008 by Tim '79 and Anne '80 (Hein) Barker and their family. Preference will be given to a student whose family may have experienced unforeseen personal, financial or family circumstances that might have altered their ability to enroll their son/daughter at Siena. Financial need is a criterion.

The Charles P. Barrett Scholarship, established in 1999, by Charles P. Barrett '49 in honor of his 50th year class anniversary. The scholarship will be awarded annually to a student in good academic standing, based on academic achievement and financial need. Preference will be given to graduates of Catholic Central High School in Troy, NY.

The J. Patrick Barrett '59 and Thomas J. Murphy '67 Scholarship has been established to provide minority students who are in financial need the opportunity to receive a Siena College education.

The BBL Construction Services/Isabelle Led Duke Scholarship is awarded annually to sons and daughters of BBL employees. Second preference is given to sons and daughters of BBL Construction Services, its affiliated

companies, its major sub contractors and vendors, and other business partners that are associated with BBL. Donald Led Duke, former Trustee, his family, friends and BBL Construction Services established this scholarship.

The Larry Benzie '58 Memorial Scholarship was established by his wife, Joan, in 1999. Preference is given to students whose residence is Watervliet, New York. Financial need is a criterion.

The Keith Ronald Berry Memorial Scholarship was established by his family to honor Keith and perpetuate the memory of Keith's charisma, compassionate manner, adventurous nature and his ability to bring people together in a friendly environment. The scholarship is awarded annually to a junior, preferably a business major and will be renewed for that student's senior year based on academic performance and financial need.

The Bethlehem Construction Corp./Wolanin Companies Ltd./Private Sky® Aviation Service, Inc. Scholarship, in memory of Vincent J. Wolanin, a Pennsylvania Law Enforcement Officer who died suddenly, was funded by his sons, Vincent M. Wolanin and Gregory M. Wolanin, and by Wolanin Companies Ltd. and its affiliates. Awards are made to a Siena student who exhibits financial need and demonstrates excellence in athletics or in mathematics, computer science, or physics. Preference is given to relatives of Wolanin Companies Ltd. employees, or to students who have lost a parent unexpectedly.

The George D. Bigler Memorial Scholarship was established to provide scholarships to full or part-time business students with a first priority given to students residing in Ulster County.

The Blake-Rosen Family Scholarship is given by Cheri A. Rosen '89 in appreciation for her Siena Experience. Awards are given based upon financial need.

Blass Communications Scholarship, established by the Blass family and corporation to mark the 20th anniversary of R.T. Blass, Inc., is awarded annually to entering or upperclass students on the basis of academic eligibility. Preference is given to sons and daughters of employees of Blass Communications. Outstanding students who are majoring in Marketing and Management or Finance or who are pursuing a career in the field of communications will be nominated by the Dean of the School of Business, and/or by the Admissions Committee.

Bradley '82 and Lisa Matheu Bodmer '85 have established The Bradley '82 and Lisa Matheu Bodmer '85 Scholarship to honor their parents William and Mary Bodmer and James and Arlene Matheu, whose love and sacrifice enabled them to become a son and a daughter of Siena College forever. The Bradley '82 and Lisa Matheu Bodmer '85 Scholarship will be awarded annually at the discretion of the Office of Financial Aid with preference given to students from Cherry Valley, Garden City, or Niskayuna, New York.

The Bond Family Scholarship, established by Joseph F. '50 and Jane Bond, is awarded annually to entering students who demonstrate strong individual character, energy, academic promise and the ability to benefit from a Siena education. Preference is given to students who require this scholarship either to be able to attend Siena College or allow the student to enroll as an on-campus resident student. This award may be based on financial need or academic merit. Selection of these students is made by the Financial Aid Committee. The scholarship is renewable for students who maintain a cumulative grade point average of 2.6 or better with a proven history of achievement in activities fulfilling the Franciscan ideals of the College.

The Boyea Family Scholarship will be awarded annually to students having a demonstrated financial need and may be renewable.

The Mary Ryan Brennan Scholarship was established by James G. Brennan in loving memory of his wife, Mary Ryan Brennan '53. The scholarship will be awarded based on financial need to students from the Capital District Region.

The Brescio Scholarship is awarded to a student demonstrating financial need.

The James M. Brett Scholarship is awarded, based on academic merit and financial need, to a male student of Irish lineage who wishes to study law. The award may be renewed for four undergraduate years.

The Anita M. Brown '76 and Michael G. Brown '73 Memorial Scholarship was established by alumni, family and friends to honor their memory. Awards are based on need.

The Buehler Family Scholarship has been established by Paul J. Buehler '50 in memory of his wife, Ann Buehler. The scholarship will be awarded to students majoring in English who intend to pursue a career in teaching, or to

students in the Sciences, to include without limitation, Biology, Chemistry, Physics or Computer Science. The scholarship will be awarded based on academic merit and financial need.

The Brian William Bull '96 and Amanda Cullen Bull '97 Scholarship, given in appreciation for their Siena experience, is awarded to a Presidential Scholar with financial need.

The Burke Family Scholarship is established to encourage and to assist a student with learning disabilities in order for the student to participate in the Siena experience. The award is based on need and may be renewable.

The Dr. Elina Burstyn Woman's Health Scholarship was established by Dr. Dmitry Burshteyn and Dr. Elina Burstyn in support of Siena College and will be awarded based upon academic merit.

The Ed and Colleen W. Butler Scholarship was established to assist students from Ed Butler's home state of Vermont and Colleen's love for the Capital Region and Vermont. Preference is given to students enrolled in the School of Business.

The Din and Carol Cahill Scholarship was established by Carol Keenan/ Cahill '74 and Daniel "Din" Cahill '75. It honors their parents who enabled them both to enjoy a "Siena Experience." Preference is given to students from Catholic high schools. This Scholarship is need based and renewable.

The Callanan Industries Scholarship is awarded annually to entering or upperclass students in good academic standing who demonstrate financial need. The scholarship is renewable. Preference is given to employees and sons and daughters of employees of Callanan Industries.

The Janet (Burns) and Robert F. Campbell Scholarship '66 was established by Bob's friends and colleagues in 2005 to honor his retirement from First Albany Corporation. The scholarship will be awarded annually to sons and daughters of First Albany Corporation and all of its subsidiaries.

The Robert and Lorraine Capano Scholarship, established by their daughter, Judy Capano-Michaelson '87, honors her parents who instilled in her a belief that anything is possible to achieve as long as she put her mind to it and worked hard. That work ethic, combined with a knowledge and drive to create her own opportunities, helped her achieve all her dreams at Siena. The scholarship is awarded based on need to a student who possesses an exemplary work ethic, optimism and confidence in his or her potential, is an active student leader, and possesses that same kind of drive and determination.

The Capital Region Scholarship Fund honors Siena's historic ties to the Capital Region and helps ensure that the College remains an attractive option to qualified and deserving local students.

The Honorable Thomas M. Carney '61 Memorial Scholarship has been established by Lana Carney in loving memory of her husband. The scholarship will be awarded to students who have demonstrated financial need with preference to students who are members of the men's or women's golf team. The scholarship is renewable annually.

The Caruso Family Scholarship established in 2007 will be awarded to a Schenectady High School graduate based on academic merit and financial need. Preference will be given to commuting students from Schenectady, NY who are interested in the field of Business.

The Salvatore D. Catalano '57 Family Scholarship was established in 2008 by Salvatore D. Catalano '57 to honor the Catalano Family's long connection to Siena College. The scholarship supports Capital District full-time students. The award is based on need and satisfactory academic standing.

The Chenette Family Scholarship was established in 2014 by Leo '91 and MinKou Chenette to pay tribute to their parents, Mr. and Mrs. John J. Chenette, Jr. and Mr. and Mrs. Sun Jong Kim, and the value they placed on education. The scholarship is awarded to students with financial need.

The Robert Chersi and Rosemary Schiavo '83 Chersi Family Scholarship was established in 2014 by Robert Chersi and Rosemary Schiavo '83 Chersi to honor their parents' commitment to education. Much like the opportunity their parents, Richard & Carmela Schiavo and Nicolo & Caterina Chersi, provided them to earn a college degree, they are honored to establish a scholarship to provide a similar opportunity to a deserving Siena College student.

The Class of 1959 Scholarship was created by members of the class in 2009 in celebration of the 50th Reunion of the Class of '59 and in appreciation of the great education received at Siena College. The scholarship will be awarded annually to a student based upon academic achievement and financial need, with consideration given to participation in community service and/or extra-curricular activities.

The Class of 1967 Scholarship created by the Class of 1967 is awarded annually to a student demonstrating financial need. The award is renewable.

The Class of 1975 Scholarship, established by Lynn M. Rondeau, recognizes the class members enduring camaraderie and friendships and provides the opportunity for future students to experience the same lifelong sense of community. Awards are based on need.

The Class of 1980 Scholarship created by the Class of 1980 is awarded annually to a junior and will be renewed for that student's senior year. Financial need is a criterion.

The Class of 1981 Scholarship created by the Class of 1981 is awarded annually to a junior and will be renewed for that student's senior year. Financial need is a criterion.

The Class of 1982 Scholarship created by the Class of 1982 is awarded annually to a junior and will be renewed for that student's senior year. Financial need is a criterion.

The Class of 1983 Scholarship created by the Class of 1983 is awarded annually to a junior and will be renewed for that student's senior year. Financial need is a criterion.

The Peter A. Codina Scholarship was established in October of 2000, to honor the memory of Peter Codina. Preference will be given to hardworking applicants of Hispanic background and/or origin.

Company I 85, 10th Mountain Division Endowed Scholarship is awarded to family members of the 10th Mountain Division members. The scholarship is based on financial need.

The Matthew T. Conlin, O.F.M. Scholarship is awarded annually to an English major in the junior or senior class at Siena. It is given for academic ability, financial need and demonstrated contributions to the Franciscan ideals of the College. Nominations are submitted to the Financial Aid Director by the English Department. Eligible students must submit an essay describing their qualifications to the head of the English department.

The Jeffrey '79 and Susan Connelly Scholarship was established by Jeffrey '79 and Susan Connelly with appreciation to the College for Jeff's "Siena Experience" and a desire to provide the same for future Siena students.

The Msgr. Joseph P. Conway '41 Memorial Scholarship was established by Dr. and Mrs. Michael E. Fleming '52 and other friends to honor the memory of a saintly priest of the Albany Diocese and a member of Siena's first graduating class. Preference is given, but not limited, to applicants from the City of Troy and to those from the Village of Castleton. Financial need is a criterion.

The Moran/Corcoran Family Scholarship was established by Lori (Moran) '86, her husband Tom, and their family with appreciation for her "Siena Experience," and a desire to provide the same for future Siena Students.

The Daniel P. and Mary K. Corr Scholarship was established in 2016 by D. Joseph Corr '73 and Cheri Pash-Corr to honor Joseph's late parents Daniel P. and Mary K. corr. This scholarship will be awarded based on financial need with first preference to a student graduating from either Shaker High School (located in Latham, NY) or Columiba High School (located in East Greenbush, NY).

The John J. Costello '85 Memorial Scholarship was established to honor the memory of John Costello '85. John had expressed his desire to someday endow a scholarship at Siena to help current students have the experience he was fortunate enough to have with the help of a scholarship and financial aid. The establishment of this scholarship by John's classmates, friends and family honors this desire, and allows his legacy to live on at Siena. The scholarship will be awarded to students with financial need.

The Jim '84 and Susan (O'Connor) '85 Coyne Scholarship was established by Jim '84 and Susan (O'Connor) '85 with appreciation for their "Siena Experience" and a desire to provide the same for future Siena students in particular those pursuing a degree in Education.

The Brian M. Crouch Memorial Scholarship was established by Brian's classmates in the Class of 2002, the Crouch Family and their many friends to perpetuate Brian's memory—to remember his kindness, caring and especially, his infectious smile. Recipients must be members of SADD (Students Against Destructive Decisions). First preference will be given to sons and daughters of public safety employees or volunteers (EMT's, firefighters, police officers, etc) and residents of the Capital Region. Awards are based on financial need.

The Thomas '69 and Patricia Cullen Scholarship was established by Thomas '69 and Pat Cullen. Preference will be given to students exhibiting financial need.

The Maureen O'Sullivan Cushing Scholarship, established by her husband James E. Cushing, is awarded annually to incoming freshmen students. Preference is given to students whose major field of study is in the liberal arts. Scholarships are based on financial need and academic eligibility and may be renewed.

The Robert and Trudy Cushing Scholarship was established by Robert and Trudy Cushing, both members of the class of 1977, in gratitude for the education that Siena provided. The scholarship is awarded annually to a student in good academic standing who has a demonstrated financial need.

The Mary Theresa Dana Memorial Scholarship was established by John and Carol Dana in loving memory of their sister, Mary. The scholarship is to be awarded to students who demonstrate financial need and are interested in pursuing a major in History or Political Science.

The Patrick Danahy '88 Memorial Scholarship was established by the Lawrence I. & Blanche H. Rhodes Memorial Fund in memory of Patrick, who lost his life in the attacks on the World Trade Center on September 11, 2001. Patrick was a devoted father who had a zest for life and enjoyed motorcycling and mountain biking. Preference will be given to a needy student who is majoring in Business.

The Dean Nancy DaPore Scholarship Fund was established by her family in recognition of her many years of service to Siena in the role of Dean of students, and with appreciation for the profound positive and lasting impact she had on generations of Siena students. Scholarships will be awarded as determined by the Office of Financial Aid at Siena College. When it is possible, preference will be given to a female student.

Established by the Franciscan Friars of the Holy Name Province together with friends and alumni of Siena, The Fr. Julian A. Davies, O.F.M. Scholarship honors Fr. Julian on the occasion of his retirement after 45 years of teaching Philosophy at Siena College. A native of Utica, NY, Fr. Julian entered the Franciscan Order in 1953, professed vows on August 13, 1954, and was ordained to the priesthood on March 12, 1960. He received his B.A. from St. Bonaventure University and Ph.D. from Fordham University. Fr. Julian published two translations of works of the Franciscan, William of Ockham, and also authored a textbook: *A Philosophy of the Human Being*. In addition to his teaching, Fr. Julian served as editor of the "Holy Name Province Annals," and was active on campus as Siena College Alumni Chaplain and College Archivist. His ministerial activities included serving the Diocese of Albany as a sacramental minister as well as being active in Marriage Encounter and Marriage Returno. The scholarship will be awarded to a Siena student with a financial need who embraces and embodies the Franciscan spirit of service to others that Fr. Julian exhibited throughout his teaching career.

The Joseph J. and Cecilia O'Neil Dawson Scholarship is awarded annually to an incoming freshman who is a graduate from the Binghamton, New York area. The student must demonstrate satisfactory academic performance and financial need. An award will be made to an incoming freshman every year. Scholarships will be renewed based on satisfactory academic performance and financial need.

The Donald and Mary DeBlieux Scholarship is provided annually to an incoming freshman from a Pittsfield, Massachusetts high school (Pittsfield High, Taconic or St. Joseph's), based on financial need. Established by their grateful daughter ('83) and son-in-law, in recognition of their generosity in providing Karen's Siena education. This scholarship is renewable based on academic achievement.

The Lucy Kazlauskas Del Grosso Memorial Scholarship has been established to honor Lucy by her husband David ('51). The scholarship will be awarded with preference to be given to students of Lithuanian background and/or origin. The award is to be based on financial need and academic merit. Consideration may also be given to students majoring in science.

The Thomas E. '57, Patricia A., Thomas D., Paul E. '88, and Dana Ann '89 De Lorenzo Family Scholarship is established to enable others to have the same opportunity for the Siena experience that the members of the De

Lorenzo family enjoyed. Awards are given based upon financial need. In addition, consideration may also be given to students in the Pre-Law program.

The Dr. Louis J. and Alice Gazeley DeRusso Scholarship is awarded annually to members of the junior class from the Capital Region who intend to go to medical school. It may be renewed for the students' senior year. The scholarship recognizes the late Dr. DeRusso's (honorary alumnus-1966) deep humanitarian commitment to the medical profession and to the advancement of higher education. Nominations for the scholarship are made by the Health Professions Recommendation Committee. Awards are based on financial need and academic eligibility.

NYC Scholarship in Honor of Thomas Devane '50 endowment is used to provide scholarships for academically promising students from the five boroughs of the City of New York based on financial need.

The Gene Devine Scholarship was established by James '50, M.D. and Nancy Cassidy to honor the memory of their friend, Gene Devine. The award is based on financial need.

The Dewar Scholarship is awarded annually based on financial need and/or academic merit to graduates of Oneonta Senior High School, Oneonta, New York. Graduates of St. Mary's School, Walnut Street, Oneonta, New York, who subsequently graduate from high school in either Otsego or Delaware Counties, are also eligible.

The Louis J. DiNuzzo Memorial Scholarship was established by the DiNuzzo family in memory of Louis J. DiNuzzo '42. Preference will be given to students residing in the city of Watervliet, New York at time of admission. Students are not required to demonstrate financial need.

The Edmund and Marguerite Duffy Memorial Scholarship was created in 2012 by Associate Board of Trustee, Anthony G. Duffy '80. The scholarship is awarded based on financial need.

The Kellie Duggan Memorial Scholarship, established to honor the memory of Kellie and her compassion, love for life and sense of humor, provides support for a Siena student based on need, community service, and commitment to the Siena College Women's Rugby team. It is hoped that the recipient of this scholarship will live like Kellie who saw a need for change and acted on that giving impulse.

The Genovese Elgidely Endowed Scholarship, established by John H. Genovese '76, Robert F. Elgidely '93, and Karen J. Bubniak '92, is awarded annually to students who are veterans, or currently serving members of the armed forces with demonstrated financial need and who may have transferred from a Community College.

The Julianne English Scholarship was established in 2006 to mark the graduation of Julianne English '06. It was given in appreciation for the great educational and living experience she had as a Siena undergraduate. Her degree in the field of psychology has enabled her to pursue a career working with individuals with special needs. In recognition of her commitment in this field of work, the Julianne English Scholarship will be given to a student who has overcome some cognitive or physical obstacle to be accepted at Siena and who may not have otherwise been able to attend Siena if it were not for this award.

The Loretta '77 and William Epstein Endowed Scholarship was established by Loretta's family, many friends and colleagues at Siena College. The scholarship was established to honor Loretta whose work at Siena has embodied the Franciscan Tradition for more than 30 years. First preference will be given to a student majoring or minoring in the Creative Arts or working towards a certificate in theater; second preference will be given to a student majoring in Sociology or Social Work. This scholarship is based on financial need and is renewable.

The Faculty Memorial Scholarship is funded by donations from the Siena faculty, their families and friends. An award is presented each year in memory of a deceased Siena faculty member. The Scholarship is granted to a senior, based primarily on academic excellence. The recipient is selected by a faculty committee.

The Joseph Farone, Jr. NHS Scholarship was established in 2014 by Anthony Farone '65 to honor his late father, Joseph Farone, and the value he placed on the importance of attending college and earning a degree in higher education. Joseph was a proud graduate of the now closed North High School (NHS) in Syracuse, NY. He went on to run the very successful family business, Farone & Son, Inc. This scholarship will be awarded based on financial need with first preference to a student from Onondaga County in New York State.

The Fr. John Felice, O.F.M. Scholarship honors Fr. John's long time commitment to serving the poor, especially the mentally ill in New York City, and his role in establishing the Franciscan Center for Service and Advocacy on

the Center's 10th anniversary. It was Fr. John's vision, as the Provincial Minister of the Holy Name Province of Franciscan Friars, to challenge Siena College to create the center. Under his leadership, the Holy Name Province donated funds to begin the center. This scholarship is based on need and will recognize young women and men who answer the call through the Franciscan Center for Service and Advocacy to serve those less fortunate, thus continuing the Franciscan Tradition that has been an integral part of the Siena experience since the college's founding.

The Finn Family Scholarship has been established by Tom and Mary Liz (Blowe) Finn '82 in honor of Mary Liz's parents, Frank and Eleanor. As devoted parents and educators, they provided a loving foundation for lifelong learning in their five children, as well as their students. Frank and Eleanor nurtured a belief that "it is in giving that we receive." Their legacy lives on in the hearts and minds of their children, grandchildren, and many of their students. This scholarship is established for the benefit of Siena students, preferably children of teachers, who embrace and embody the Franciscan spirit. The award is based on financial need.

The Finneran Family Scholarship was established by John and Dena Finneran in recognition of John's parent's John P. & Mary E. Finneran, and his uncle, Msgr. Edward T. McCorry, who every day demonstrated to those around them what it meant to live life in the Franciscan Tradition. The children, grandchildren, nieces, and nephews of these wonderful people will be forever grateful for the love, support, and care they have given us throughout the years. Two generations of Finnerans have already or are currently attending Siena (John '81, Christopher '85, Rozanne '89, Brendan '11, and Katelyn '14) and the family would like to help assure that others may have the same opportunity. Preference will be given to an incoming lacrosse player or a student in good standing at any level whose family may have experienced unforeseen personal, financial, or family circumstances.

The Patricia Ann Fish '79 Scholarship is awarded annually on the basis of financial need. Preference is given to students of small public high schools with a graduating class of 100 or less. This Scholarship is renewable based on academic performance.

The Lewis Golub Memorial Scholarship was established in 2010 by Price Chopper's Golub Foundation. This award is dedicated to the memory of Mr. Golub, who, as the CEO of Price Chopper Supermarkets from 1983 to 2000, used his superior financial skills and business acumen to build the company into a premier regional supermarket chain. The award provides one scholarship annually to a finance major in his or her junior or senior year of college. The student must be in good academic standing and demonstrate financial need.

The Richard E., Sr. '55 and Jean G. Fitzgerald Scholarship was established by Richard E. '55 and Jean G. Fitzgerald in honor of the education Richard and his sons received from Siena College.

The Thomas Halpin Fitzgerald and Joan Zwiercan Fitzgerald Scholarship is awarded annually to a student from St. Joseph's High School in Pittsfield, Massachusetts. Financial need is not required but may be considered. The student must have maintained at least a B average and be recommended by St. Joseph High School Guidance Department.

The Noel A. Fitzpatrick, O.F.M. Scholarship is awarded to a student from Bishop Timon High School in Buffalo, N.Y. It is based on academic ability, financial need, and the espousal of Christian ideals similar to those held by the late Father Noel. The scholarship is renewable. Recommendation is made by officials at Bishop Timon High School.

The Foote Family Scholarship established by Howard S. Foote '74, his wife, Susan, and their daughter, Jenna E. Foote '14, is awarded based on financial need.

The Ursula M. Forth Memorial Scholarship has been established by the Forth Family to honor her memory. Ursula appreciated the spiritual and academic influence that Siena and the Franciscan Tradition had on her family. The scholarship will be awarded based on academic merit and financial need to commuting students from the Capital Region who are interested in the field of science or the liberal arts.

George W. Foy Scholarship is awarded annually to incoming needy freshmen residents of Albany County, graduating from Albany County high schools.

The Franciscan Memorial Scholarship Fund has been initiated with a contribution from the Friars of Siena College on behalf of the Province of the Most Holy Name of Jesus, of the Order of Friars Minor. The fund honors the devotion and dedication of the Friars who have served Siena over the past 70+ years, from the founding of

the College. The fund has been established in recognition of the longstanding tradition of Franciscan concern for those in society whose access to higher education has been restricted because of ethnic origin or social condition. Preference is given to individual students who have demonstrated concern for the wellbeing of their communities. Recipients should be full-time students who exhibit financial need. The Director of Financial Aid will submit to the Guardian of the Siena Friary a list of all eligible candidates. Applicants will be recommended by the Guardian of the Siena Friary to the Financial Aid Committee. Final selection will be at the discretion of the Financial Aid Committee.

Franciscan Tradition Scholarships The spirit of volunteerism is alive and well at Siena, reflecting the College's Franciscan heritage. To recognize and strengthen that spirit, Franciscan Tradition Scholarships will be given to students who exemplify that spirit through service to Siena and the wider community.

The Clifford and Mary A. Frasier Scholarship was established by their son, Ernest '77, in 1999. It memorializes the love and devotion they gave to their family during their lifetime. The scholarship is awarded annually to a School of Business major who demonstrates high moral and ethical standards. The award is renewable based upon maintaining these standards. Financial need is a criterion.

The John T. and Mary Regina Garry Scholarship, established by John T. Garry II '50 and his wife, Mary Regina, is awarded annually to an upperclass student who has encountered unforeseen personal, financial or family circumstances which would preclude the continuation of studies at Siena. The scholarship is renewable contingent upon an annual review of the circumstances involved. The scholarship is need based.

The William H. and Grace Cronin Gibbs Memorial Scholarship was established by Mrs. Anne Gibbs Scripps in memory of her parents. The scholarship is awarded annually to a student in good academic standing who is a History major. Financial need is a criterion.

The John Gioia Scholarship has been established to honor the memory of John Gioia who was born and raised in Brooklyn, New York in a loving family with very limited financial resources. Through determination and hard work, John went on to a distinguished career in the United States Air Force, retiring as a colonel and achieved great success in the private sector as a founding partner and CEO of Robbins-Gioia, a management consulting firm. The John Gioia Scholarship will be awarded to a Siena student in financial need to encourage that student to achieve success through determination and hard work.

The Girvin Family Scholarship is a gift from Sal Ferlazzo '77 in recognition of his forty year relationship with the Girvin Family, and is awarded to students who embody the selfless spirit of generosity and concern the Girvin family have shown so many individuals.

The John P. and Regina M. Glynn, Jr. Scholarship is awarded annually to an entering or current student with demonstrated financial need. Preference is given to a minority student with a strong academic record who has shown a consistent commitment to community service.

The Frank H. Gorke, Jr. Scholarship established by Frank H. Gorke, Jr. '67 will be awarded annually to a graduate of LaSalle Institute, Troy, New York. Students must demonstrate financial need and academic ability. The award is renewable.

The Gorman Family Scholarship given by P. Anthony Gorman and Denise M. Gorman, friends of Siena College, is awarded based on financial need.

The Catherine M. Grace Scholarship is awarded annually based on academic achievement and financial need. Preference is given to non-traditional female Siena students.

The Robert L. '68 and Charlotte C. Guido Scholarship is established to provide resources for graduates of The Class of '68 High School Mentoring Program and is based on need. If no candidates are available in any given year or the program ceases to operate, then an award is made to students with the highest need as determined by the Financial Aid office.

The Gundermann Family Scholarship is awarded to a student(s) from Nassau or Suffolk Counties, New York, based on need.

The Kerry A. '79 and Patricia Fitzgibbons '79 Guthrie Scholarship was established by Kerry '79 and Patricia Fitzgibbons '79 Guthrie in honor of their "Siena Experience" and the desire to provide the same for generations of future students.

The Father Martin A. Hanhauser, O.F.M. Scholarship established by family, friends, and former students, honors Fr. Martin's special contributions to the Siena Community. The scholarship is given annually based on need to students studying in the School of Science.

The William "Bill" Harlow, Jr. '91 Memorial Scholarship, was established by William (Dad), Eithne (Mom), Ann Marie (Sister), Denis (Brother), and Mary '06 (Sister) to eternalize the memory of Bill's spirit, amazing sense of humor, and his commitment to education, family, and community. The scholarship is awarded annually to a student who has declared a major in the School of Business and demonstrates financial need in continuing their higher education. As a family, we are so lucky to have shared life and love with Bill and we are forever thankful for those memories.

The Harmon/Coates Student Athletic Scholarship is awarded to students competing in intercollegiate athletics who achieve the highest grade point average for the individual academic year with preference to women's field hockey participants. Financial need is a criterion.

The John R. Held '80 and Mary Ryan Held '83 Scholarship, given in appreciation for their Siena experience, is awarded to students from the Capital Region with financial need.

The Hollis E. and Elizabeth Hewlett Harrington Scholarship is awarded annually on the basis of academic and financial eligibility. Preference is given to students in the School of Business majoring in Business, Finance, Marketing, Management, Accounting, Economics, or International Studies. Daughters or sons of employees of Fleet Bank (Currently Bank of America; Formerly Norstar Bank) of Upstate New York are given first consideration. This scholarship is renewable.

The Jeanne W. Harris Scholarship Award, sponsored by the New York State Federation of Home Bureaus, is offered annually to an upperclass needy student in good academic standing pursuing studies in the field of Family Counseling. The student selected for this award must be a resident of a county where the Federation of Home Bureaus, Inc. has an organized chapter. Nominations are submitted to the Financial Aid Director by the Social Work Department Head.

The Jack W. Harvey Memorial Scholarship honors the memory of loyal alumnus and College trustee Jack Harvey '50, a prominent Indianapolis businessman. Established by his wife Betsey and his daughters Kelly, Meg and Mandy, this renewable scholarship is awarded annually to students who demonstrate financial need, strong citizenship, active campus and community involvement, and academic achievement.

The William and Delia O'Donnell Harvey Memorial Scholarship, established by Jack W. Harvey '50 and his wife, Betsey, of Indianapolis, is awarded annually to students pursuing a career in business or science. Preference is given to those expressing a special interest in computer related fields. The awarding of the scholarship is based on financial need and academic eligibility and is open to entering freshmen as well as upperclass students. The scholarship may be renewed.

The Hayes Family Scholarship was established by Michael M. Hayes '67 in honor of his parents, Irene M. and Michael C. Hayes. Preference is given to students from Fairfield County, Connecticut and children of employees of the M.M. Hayes, Co., Inc. The scholarship is renewable contingent upon academic success and contributions to campus life. Financial need is a criterion.

The William Randolph Hearst Endowed Scholarship Fund was established in 1987 by the William Randolph Hearst Foundation. It provides need-based scholarships annually to freshmen and upperclassmen.

The Michael Hickey '83 Scholarship is created by Michael Hickey '83, a 1979 graduate of Tamarac High School. Preference is given to a business major but not solely awarded. The scholarship is awarded annually to a Tamarac High School (Brunswick/Troy, NY) graduate based on need and who demonstrates a strong teamwork and collaborative spirit.

The Higgins Scholarship is awarded to liberal arts majors at Siena College. Preference will be given to students who reside in the City of Yonkers or the County of Westchester, New York, and who demonstrate financial need.

The Anna and Charles Hines Scholarship honors the parents of Fr. Hugh F. Hines, O.F.M., who was president of Siena College from 1976 to 1989. It was established by the Board of Trustees, in conjunction with former trustees and the Board of Associate Trustees. This scholarship is awarded annually to students who demonstrate financial need, academic ability, and value the Franciscan ideal of service to others.

The Brian H. Holt Scholarship was established by his family, friends and classmates to perpetuate the memory of Brian's courage, faith and captivating personality. The fund was subsequently greatly enhanced by the New York City District Council of Carpenters. It will be awarded annually with preference given to a student who demonstrates financial need, is an active participant in school activities, and is a citizen of Dutchess County in the State of New York or to members of the New York City District Council and to their spouses, sons and daughters. The award may be renewed on a yearly basis, depending on satisfactory academic progress and contributions to campus life.

The Dr. Daniel J. Horgan Scholarship has been established by his family to recognize Dr. Horgan's 46 years of teaching and administrative services to Siena College as well as their own close ties to the Siena Community. It is awarded annually to a student demonstrating superior academic ability without regard to financial need. The award is given to a full-time upperclass student who is a Spanish major.

The Bishop Howard J. Hubbard H '77, D.D. Scholarship honors Bishop Hubbard as the spiritual leader of the Albany Diocese who was responsible for ensuring high-quality Catholic education at all levels. Beginning in the fall of 2014, a \$3,000 annual scholarship will be awarded to students who gain admission to Siena College from each of the following high schools within the Roman Catholic Diocese of Albany: Bishop Maginn High School, Catholic Central High School, Notre Dame-Bishop Gibbons Middle and High School, Saratoga Central Catholic High School, the Academy of the Holy Names, Christian Brothers Academy and La Salle Institute. This scholarship provides the opportunity for students to continue their studies at Siena College, a school that is rooted in the Catholic and Franciscan tradition.

The M. Brian '73 and Marta Pat Hughes Scholarship was established by M. Brian Hughes '73 in honor of his parents, Mary Ellen and Marty Hughes, with appreciation for his "Siena Experience" and a desire to provide the same for future Siena students.

The Graham Hunter Scholarship is awarded annually in honor of Graham Hunter, a naturalized American citizen of Scottish descent. Preference is given to an accounting major. Renewal is dependent on academic achievement. The scholarship is need based.

The Anne and Pellegrino (Pete) Jannotti Scholarship established by their grateful son, Gene Jannotti '68, honors his parents by creating a scholarship award based on need with a preference for a student who was a participant in the High School Mentoring Program.

The Father Mychal Judge, O.F.M. Scholarship has been established to honor the memory of Fr. Mychal Judge, O.F.M. who served as Assistant to the President at Siena College in the late 1970's and as chaplain to the New York City Fire Department. The scholarship will be awarded to children of firefighters who gave their lives trying to save others in the World Trade Center tragedy on September 11, 2001. One new scholarship will be awarded each year based on demonstrated financial need.

The Howard M. Kahn Scholarship was established by the Kahn Family and Urbach Kahn & Werlin, PC (the firm which he co-founded) to perpetuate the memory of Howard M. Kahn (Siena Class of 1948). The scholarship recognizes Mr. Kahn's 40 years of association with Urbach Kahn & Werlin, PC, and his commitment to Siena College, the accounting profession, community organizations, and his family. This annual award will be made to accounting students who demonstrate financial need, good academic standing, and the attributes of Mr. Kahn. Additional preference will be given to graduates of Albany High School and/or to students who have lost a parent.

The Ka Makani Scholarship was established by Mark A. Smith '91 and Linda H. Kamisato to assist Siena students with financial need. Ka Makani is Hawaiian for wind and is generally viewed as an uplifting wind to honor their parents and grandparents in the Smith, Kamisato, Carter, and Kochinda families.

The Arlene Pole Kamilow Scholarship was established in 2006 by her daughter, Kim Kamilow/Luker '82, and her granddaughter, Katherine Luker '06, as a living legacy of love for her commitment and devotion to family and friends. This scholarship recognizes the Franciscan values she embodies and is awarded to a legacy

upperclassman with an outstanding work ethic, who by their involvement in campus and community activities shows commitment to Siena's Spirit.

The Don J. Kauth '72 Memorial Scholarship was established by his fellow classmates, family and friends after his death on 9/11/01 at the World Trade Center. Don's Siena experience helped shape his future as a teacher, certified public accountant and financial analyst. He possessed intelligence, drive, compassion and a wonderful sense of humor as well as dedication to family. Preferences include students residing in New York State, those pursuing a career in Accounting or Finance and those expressing an interest in tutoring or teaching. The scholarship is based on financial need.

The Barth J. Kelly, III '62 Memorial Scholarship is awarded annually to an entering freshman. Preference is given to students from Monroe County, New York enrolled as full-time Siena students in the School of Business. Further consideration is extended to accounting majors and participants on a sports team represented by the Siena Athletic Department. The scholarship is based on financial need.

The Professor Thomas O. Kelly II and Dorothy S. Kelly Scholarship is intended to memorialize the role of faculty and the contributions of the wives of faculty members to the education of students. The scholarship will be awarded to a sophomore who is majoring in History and/or American Studies. Should none be qualified, then Philosophy, English, or Liberal Arts majors will be considered. It will be awarded on the basis of academic achievement, financial need and is intended to follow the recipient to graduation.

The Joseph F. and Catherine Ryan Kenney Scholarship was established to assist current or former parishioners of St. Joseph's Parish, of South Troy, NY or, if not available, an applicant may be a descendant of a parishioner or, lastly, a resident of South Troy and be in good academic standing at Siena College.

The Kenosian Family Scholarship is established by Martin '50 and Joyce McCollum Kenosian out of love for Siena and gratitude for life success. The award is given to graduates of Watervliet High School and Cambridge Central High School. The award is renewable, provided the recipient maintains a cumulative 3.0 grade point average.

The Helen and Theodore Kicinski Scholar Athlete Fund was established in 1989 by Walter Kicinski '62. The Scholarship was created in honor of his parents and to assist students who participate in varsity athletics at Siena College. Awards will be given to those student athletes recommended by a Siena Team Coach, endorsed by the Director of Athletics and approved by the Director of Financial Aid, with preference given to diverse student athletes expected to participate in select varsity sports at the College.

The Kiernan Scholarship is awarded to a student demonstrating financial need.

The John E. King Scholarship is awarded annually to entering or upperclass students majoring in Accounting. Scholarships recognize Mr. King's 35 years of association with the firm of Shaye, Lutz, Schwartz & King (which merged with Coopers & Lybrand) and his devotion to the College and his profession.

The KLC Scholarship has been established on the principle that a person's education is the most valuable asset one can possess. It also acknowledges the importance music plays in our society, especially during sporting events where the pep band's "magic" fires up the crowd. This scholarship is awarded to a student who comes from a family with multiple siblings, who is an active member of the Siena College Pep Band or was a member of their high school band with the intention of joining the Siena Pep Band. The student must demonstrate financial need.

The Kolakowski Family Scholarship, created by Edmund '51 and Gary '79, is intended to support an entering freshman considered to be an average student academically in his Siena class. Preference is given to student athletes. This award is based on financial need and is renewable.

The Charles Jeffrey Kovacs Memorial Scholarship was established by Mr. Kovacs at his Alma Mater, Siena, to affirm his long connection both educationally and spiritually having paved a lifelong vision and life style since he was enrolled in the 3rd Order of St. Francis in 1962. The scholarship will be awarded based on need to academically worthy science students.

The Professor Edward J. LaRow Scholarship, is awarded annually to a senior or junior student at Siena College who is interested in a career in the health professions and who has demonstrated significant academic achievement, the best qualities of the Franciscan tradition, and financial need. The scholarship, established by

former students, recognizes Dr. LaRow's tireless dedication and service. Nominations for the scholarship are made by the Health Professions Recommendation Committee.

The Ronald and Suzanne LeBlanc Scholarship was established in 2004 by R. Andrew LeBlanc '94 and his wife, Melissa. The scholarship was created to honor his parents' commitment to education and to assist students who have demonstrated academic excellence and who have shown a caring commitment to the community through their activities. Preference will be given to graduates of Kingston and Saugerties High Schools.

The Mary Doran Leslie Memorial Scholarship is awarded annually to students born in the United States of America who have graduated from high schools in a school district located entirely or partially within Schenectady County, NY, and shall be residents of Schenectady County at the time of their selection. Recipients are selected by the Financial Aid Office and approved by the Committee on Enrollment Management based on academic ability, financial need, and demonstration of character.

The Louis Lombardi '43 and Gary L. Lombardi '68, Esq. Memorial Scholarship honors the memory of Louis Lombardi '43, former Siena professor and prominent Capital Region attorney and CPA and his son Gary L. Lombardi '68, Esq., a well-respected attorney. During their lifetimes, both father and son were dedicated to the service of others. This scholarship exemplifies his deep care and concern for fellow humans. The scholarship is awarded annually to a student who anticipates going to law school. Preference is given to disadvantaged students who demonstrate financial need and strong academic achievement. The scholarship may be renewed if the recipient maintains an Academic Honor List average.

The Douglas MBA '66 and Cristine Lonnstrom Scholarship was established in 2006 by Douglas (MBA) '66 and Cristine Holm Lonnstrom. It recognizes a relationship spanning over 60 years that has included dedicated service, ambassadorship and philanthropy for the college. Preference will be given to a graduate of Voorheesville High School, Voorheesville, New York.

The Charles and Leona MacClosky Scholarship is awarded annually to entering freshmen to develop Christian ideals, moral citizenship, and academic excellence. Awards are based on academic ability, citizenship, and financial need.

The Mack Family Scholarship is awarded to students who exemplify the Franciscan Tradition and who graduated from Our Lady of Lourdes High School, Poughkeepsie, New York, or from a high school in Dutchess County, New York, or a high school in the Mid-Hudson Valley, New York.

The Fr. Kevin Mackin, O.F.M. Scholarship, established by Alumni, friends, and admirers with a foundation gift from the members of the Class of 1981, recognizes Fr. Kevin's contributions as President of Siena College and his impact as a Franciscan Friar on the Siena community and beyond through his presence, personality and contagious spirit. The scholarship is awarded based on need.

The Guy '89 and Diane Shea Maddalone '89 Scholarship was established by Board of Associate Trustee, Guy Maddalone, and his wife, Diane Shea Maddalone, to assist the College in providing the education of a lifetime for deserving young people. The award is given based on a student(s) exhibiting entrepreneurial interests (own their own business or actively involved in Siena's Entrepreneur Club or Center for Innovation and Entrepreneurship) and financial need.

The Madden Family Scholarship was established by Christopher '77 and Carleen (Nelson) Madden and family to honor their parents/grandparents-Hon. Jerome (deceased) and Joan Madden and Frank and Eileen Nelson. This scholarship is awarded annually to students who demonstrate financial need and academic ability.

The Dr. Neva M. Mahoney Scholarship was established by the donor to provide students residing in the Capital Region of New York State an opportunity to attend Siena. A friend of the College, Dr. Mahoney received an Honorary Degree from Siena College in 1994. Financial need is a criterion.

The George T. Maloney '54 Scholarship was established by C. R. Bard Foundation, Inc., in 2006, to honor and recognize George for his outstanding vision and leadership both as a professional at C.R. Bard Inc., and as a trustee and philanthropist at Siena College. This scholarship will be awarded annually with preferences given to students in the School of Science.

The Maloy Family Scholarship was established with a gift from Jack '76 and Joanne Fitzpatrick '80 Maloy in appreciation of their Siena Experience and the life-long relationship they have enjoyed thanks to the College. Preference will be given to a member of the Siena College Men's and/or Women's Cross Country Team(s).

The Christopher Anthony Marchese Scholarship was established by his family and friends to perpetuate the memory of Chris' scholastic abilities, his love of God, family, and all who knew him, and his charming, easy-going manner which endeared him to all. It is awarded annually to a student majoring in accounting, with preference given to a student from Long Island who demonstrates financial need.

The Alberto '60 and Anabelle Mariaca Scholarship is awarded to Bolivian residents, or Bolivian citizens residing in the United States, who meet all standard qualifications for admission, as full-time, matriculated students, enrolled in four year degree programs.

The Kristian '96 and Kristen Mariaca Scholarship was established by Kristian '96 and Kristen Mariaca to create an educational opportunity to a female student majoring in Business with financial need. The scholarship is renewable based on satisfactory academic standing and continued enrollment in the Business major.

The Louis A. Marozzi Scholarship honors the memory of the founder of Colonial Plumbing, astute businessman and great supporter of Siena. The scholarship is awarded annually based on academic merit and financial need. Preference is given to residents of the Capital Region interested in the field of business administration.

The Mashuta Family Scholarship, established in 2008, to celebrate Heather's 2008 graduation and Amber's acceptance into the Class of 2012 at Siena College. Preference will be given to students who are residents of the City of Schenectady, New York.

The Joseph P. Martin Memorial Scholarship was established by Alma and Vincent P. Martin '65 in memory of their son, Joseph, and is awarded to a junior or senior commuting student in the School of Science with a preference given to physics majors. This scholarship is based on financial need.

The Fr. Jerome J. Massimino, O.F.M. Scholarship was established by his many friends to honor Fr. Jerome's 25th Anniversary as a priest. While a member of the Siena community, he touched the lives of many students who valued his compassion and caring involvement in their lives. The scholarship is awarded annually to students who are active participants in student activities and who value the Franciscan charism of service to others. The scholarship is based on financial need.

The Robert F. Matt '62 Family Scholarship was established to honor the memory of Robert F. Matt, Siena class of 1962. Husband, father, grandfather, businessman, philanthropist, Robert (Bob) Matt passed away in February, 2009 after a brief, but intense battle with cancer. Bob's family and friends realized his dream of establishing a scholarship at his beloved alma mater. Bob attended Siena part-time for six years while simultaneously supporting a growing family with a full-time accounting job. Struggling through that critical point in his life shaped his strong character and built a foundation for philanthropy. Bob was generous to Siena and other nonprofit institutions over the years, and encouraged the establishment of a scholarship in his name to provide students with a resource unavailable to him so many years ago. In the same spirit in which Bob provided for others, his family and friends have made this a reality. The scholarship will be awarded to a student from Bob's hometown county of Schenectady, New York, with preference toward an accounting major, and based on financial need—all criteria that most accurately personifies Bob Matt.

The McCarthy Scholarship, established by the McCarthy Charities, Inc. in honor of its living and deceased members, is awarded annually to students from Rensselaer County who demonstrate high moral and ethical standards. Selection is based on financial need and academic achievement. The scholarship may be renewed.

The Father William E. McConville, O.F.M. Scholarship is awarded annually to an entering or current student with demonstrated financial need. Preference is given to a student with a strong academic record who has shown a consistent commitment to community service.

Edward T. McCormick Scholarship is awarded annually to incoming freshmen who are graduates of Catholic Central High School, La Salle Institute, or Troy High School of Troy, N.Y. Awards are based on need.

The Robert J. & Thomas R. McCormick Scholarship was endowed by Mr. Robert McCormick in honor of his sons. It recognizes his ties to Siena College and the Capital Region. The scholarship is awarded annually to a student in good academic standing who has a demonstrated financial need.

The M. Margaret McGoldrick Scholarship was established by her son, William P. McGoldrick '68 and his wife, Elizabeth. The scholarship award is given to students who have participated in the High School Mentoring Program and have financial need. If there is no need for these funds to support students who have participated in the High School Mentoring program (for example no student who has participated in the High School Mentoring Program is enrolled at Siena, or the High School Mentoring Program ceases to exist), then these funds may be used to support any student with the greatest financial need who is enrolled at Siena at the discretion of the Office of Financial Aid.

The Daniel '69 and Irene McKillop Scholarship was established on the occasion of the 40th Reunion of the Class of 1969. The scholarship will be awarded annually to a student on the basis of academic ability, financial need, and the student's demonstration of the Franciscan ideal of service to others. Consideration may also be given to students who are children of a NYC Police Officer.

The Robert J. Merritt Scholarship is awarded to students on the basis of academic merit and financial need and may be renewed for four years of undergraduate study. Preference is given to students who are graduates of Chaminade High School in Mineola, NY and to children of employees of one of the building trades (plumbing, carpentry, electrical, etc.).

The Dr. Pasquale and Marie Montesano Scholarship, in memory of Dr. Pasquale & Marie Montesano, established by their son, Pasquale X. Montesano, MD '75, is awarded annually to academically talented and financially needy students interested in majoring in the sciences. Preference is given to students from the Mohawk Valley of Upstate New York. The award is renewable.

The Father Donald J. Mooney, O.F.M., Scholarship is awarded annually to an incoming freshman who is a member of St. Edward the Confessor Church, Clifton Park, N.Y. The student must demonstrate satisfactory academic performance and financial need. The award is renewed on a yearly basis depending on academic achievement and conduct. Nominations are submitted to the Financial Aid Director by the St. Edward Parish Scholarship Committee.

The Michael, Helen and Aileen Moriarty Scholarship in honor of Fr. Michael Feeney, O.F.M. was established by Michael J. Moriarty '55 in honor of Fr. Michael Feeney, O.F.M., whose dedication and devotion to Siena College was exemplary. Awards from the scholarship will be based on financial need and preferences will be given to student athletes who participate in a non-revenue sport represented by the Siena Athletic Department, first preference being given to student athletes who participate in tennis or cross-country track. The Director of Financial Aid will consult with the Siena College Athletic Director to determine the recipient of the scholarship.

The Morrell Family Scholarship for Broadcast Journalism/Communications is awarded annually to students who exhibit James J. Morrell's '66 active involvement in community service endeavors and commitment to his fellow man. The scholarship was established by James and Kathleen Morrell in honor of their families. Awards will be given to students in the School of Business and School of Liberal Arts with an interest in pursuing a career in some aspect of Broadcast Journalism/Communications. Preference will also be given to students participating in the College Radio Station (WVCR) and Student Newspaper (Promethean). Awards are based on financial need and academic eligibility and may be renewed.

The Morrell Family Scholarship is awarded annually to an upperclass student who exhibits James J. Morrell's '66 active involvement in community service endeavors and commitment to his fellow man. The scholarship was established by James and Kathleen Morrell in honor of their families. Awards are based on financial need and academic eligibility and may be renewed. Nominations for the scholarship are made by the Campus Ministry staff and the Director of the Campus Center.

The Moy Family Siena College/Albany Medical College Scholarship in honor of Dr. Edward J. LaRow '59 was established with a gift from Dr. and Mrs. Ronald L. Moy. Preference will be given to students who exhibit financial need, and who exemplify the mission of the Siena College/Albany Medical College Program. This scholarship may be renewed.

The Eleanor C. and Richard W. Mullen Memorial Scholarship was established by an Anonymous Donor to honor Fr. Kevin J. Mullen '75, O.F.M., Ph.D., the tenth President of Siena College, and in memory of Fr. Kevin's parents. The scholarship is awarded based upon financial need.

The Murphy Family Scholarship was established by Alison K. Murphy '93 to honor the 60th birthday of her father, Michael E. Murphy '70. The scholarship will be awarded to a transfer student(s) majoring in History or Marketing/Management. The award is based on need.

The Fr. John C. Murphy, O.F.M. Scholarship was established by Fr. John's many friends, alumni and colleagues at Siena College to honor his work at Siena that embodied the Franciscan traditions. This scholarship is based on financial need and may be renewable.

The John F. '79 and Kellyanne H. '81 Murray Scholarship, created in 2009 by Siena Trustee John F. Murray '79 and his wife, Kellyanne Healey Murray '81, has been established in appreciation for the gift of the Siena experience. The scholarship is based on financial need and preference is given to students from either Rensselaer or Schoharie Counties (New York) who have demonstrated a commitment to community service.

The Richard and Agnes Murray Scholarship is awarded annually to students on the basis of academic achievement and financial need. The scholarship was established in 1993 by Associate Trustee, Richard J. Murray, President, R.J. Murray Co., Inc., in cooperation with Carrier Air Conditioning Co., in recognition of 60 years of their association. The award may be renewed.

R.J. Murray and Family Scholarship was established in 1997 by Associate Trustee, Richard J. Murray. The scholarship will be awarded to a student in good standing based on academic achievement and financial need. The award is renewable.

The William P. Murray '48 Scholarship, established by his sister, Jane I. Murray, and his brother, Joseph E. Murray '47, is awarded annually to an incoming freshman. This scholarship is in memory of Bill '48, a renowned attorney, member of the bar of Washington, DC, New York and the US Supreme Court, decorated soldier, son of James and Hazel (Kilroy) Murray of Albany. Preference is given to Catholic students who are graduates of Christian Brothers Academy of the Capital Region. Awards are based on financial need and may be renewed.

The NYC/ESM '82/'83 Scholarship was established to provide financial assistance to students from the five boroughs of New York City and those who graduated from East Syracuse-Minoa High School.

The Nahow Family Scholarship was established by Dr. Theodore Nahow '43 and other family members. It is awarded annually on the basis of financial need and is renewable based on good academic standing.

The James L. Nash '64 Fellowship is awarded to a sophomore, junior, or senior student in good standing who has an interest in and commitment to providing community service for the betterment of individuals or organizations located in the Capital Region.

The James and Mary Nealy Scholarship is awarded based on demonstrated financial need.

New York City Endowed Scholarship Fund endowment is used to provide scholarships for academically promising students from the five boroughs of the City of New York based on financial need.

The Northwestern Mutual Scholarship will be given to students who have experienced the death or disability of a parent and who have financial need.

The Noteworthy Scholarship has been established in memory of Thomas B. Constantino whose business successes were always attributed to his faith in God. The scholarship will be awarded based on academic merit, preference will be given to students who are majoring in the field of Business and taking elective courses in the Creative Arts.

The Obermayer Family Scholarship was established by the Obermayer Family to honor the memory of Bernice A. Obermayer. Bernice was the wife of John W. '58 (Siena Board of Associate Trustees) and the loving mother of Steve '83 (Board of Associate Trustees), Paul W. (US Navy, Retired), James M. '90 (East Greenbush, NY Schools), David R. '91. She was also the mother-in-law of Jeanne (Martin) Obermayer (Assistant Vice President, Student Affairs/Dean of Students). The scholarship is awarded annually based on academic achievement and financial need and may be renewed.

The James and Sandra O'Brien Scholarship was established by their son, Mark J. O'Brien '95, Esq., in honor of their 50th Wedding Anniversary.

The George E. and Annabel G. O'Connor Memorial Scholarship, established by the O'Connor family, is awarded annually to students from the Capital Region. Preference is given to students from Waterford and Cohoes, headquarters of Mohawk Paper Mills, Inc., which Mr. George O'Connor served as President and Chairman. Scholarship renewal is based on financial need and academic achievement.

The Patrick "P.J." O'Donnell Scholarship was established by his family, friends, classmates, and parish to perpetuate the memory of his courage, quest for knowledge, faith, and endearing personality. It is awarded annually with preference given to a student who demonstrates financial need and is an active member of St. Edward the Confessor Church, Clifton Park, N.Y. The award may be renewed on a yearly basis depending on academic achievement and contributions made to campus life.

The Oliver-Esposito Family Scholarship, established in 2012 by Gerry '94 and Rebecca Oliver Esposito '94 to honor the experience and benefits received from their Siena educations. The scholarship will benefit a female student from Upstate New York that is pursuing a major in Finance or Accounting. Preference is given to a woman from Delaware, Sullivan and Broome Counties. The scholarship is renewable for students who maintain a necessary cumulative grade point average.

The Ollard Family Scholarship was established to provide scholarship assistance to students with demonstrated financial need.

The Terry Pacheco '80 Memorial Scholarship was established by James J. Treacy, Jr. '80 to honor his friend and classmate. First preference is given to students from Rockland County, New York. The scholarship is based on financial need.

The Salvatore, Josephine and Melissa Papa Scholarship will be awarded annually on the basis of financial need. The Scholarship is renewable based on good academic standing.

The Fr. Kenneth P. Paulli '82, O.F.M., Ed.D. Scholarship, in honor of his grandparents, Alfred and Lena Albano and Paul and Josephine Paulli, was established in 2010 by his many family, friends, Franciscan Brothers, colleagues, and fellow alumni to commemorate Fr. Ken's 25th Anniversary as a friar and 20th Anniversary as a priest. Fr. Ken has been a part of the Siena community for more than thirty years as a student, alumnus, faculty member, administrator, and as Chief of Staff to the President of Siena College. His student-centered and challenging teaching, his collaborative and thorough work as an administrator, his compassionate service to students, alumni, and countless others, locally and nationally, exemplify the continuing Franciscan and Catholic traditions and values of Siena College. On this, his double anniversary, we his family, friends, Franciscan Brothers, colleagues, and fellow alumni wish to celebrate Fr. Ken's commitment to a Franciscan and Catholic Liberal Arts Education by endowing a scholarship in his name to be awarded to students of financial need who value Catholic education.

The Perkinson Family Scholarship was established by Mr. Gary Perkinson, class of 1959, to provide scholarship assistance to deserving students who show financial need. First preference is given to students from Catholic Central High School in Troy, NY.

The Rose and Carmine Perrotta Scholarship has been established by their loving daughter, Patricia, and her husband, Paul, to keep alive the memory of two hard working and extraordinarily generous people. Rose and Carmine, the children of immigrants, grew up on the Lower East Side of Manhattan in challenging economic circumstances. They achieved much and passed on to their children a strong desire to learn, to become productive citizens, and to reach out to those in need. The Rose and Carmine Perrotta Scholarship will be awarded to a Siena student in financial need who has demonstrated a commitment to learning.

The Donald and Jay Petro Scholarship was established to assist students requiring financial aid and willing to supplement scholarship support from their own earnings.

The Dr. William L. Pfeiffer Scholarship, established and sponsored by the Albany Savings Bank, recognizes the deep personal commitment which Dr. Pfeiffer has exhibited toward higher education, the banking and business communities, and politics, as well as regional, state, and national affairs. Two scholarships are awarded to upperclass students with an interest in business, banking or political science. The scholarship is based on financial need and academic eligibility. Preference is given to New York State residents and the scholarship may be renewed.

The Dr. William Pickett '41 Memorial Scholarship was established by family and friends to perpetuate Dr. Pickett's memory. Preferences will be given to students from Albany, Schenectady, and Rensselaer Counties who are interested or enrolled in a pre-med program. This scholarship is based on need.

The Bernard F. Picotte Scholarship is awarded annually to upperclass students majoring in Business or Computer Science. Recipients must be residents of the Capital District with preference given to residents of Albany or Schenectady County. The scholarship recognizes the Picotte family's active commitment to higher education in the Capital District. Nominations for the scholarship are made by the Dean of the School of Business.

The John D. Picotte Family Scholarship is awarded annually to a Siena student based on financial need. When possible the award should follow the same student during his or her four undergraduate years. Preference is given to a student from the Capital Region and/or the Adirondack Region of New York State.

The Margaret Sullivan Plante and the Marion Sullivan Bernier Scholarship has been established by Noreen Sullivan Galonian in loving memory of her sisters for: students who have encountered personal, financial or family circumstances which would preclude the continuation of studies at Siena; or students who have been accepted into the Siena/Albany Medical College Program; or students who are majoring in Chemistry.

The Lt. Col. Leo A. Polinsky '49 Memorial Scholarship, established by his cousin, Mrs. Theresa M. Walton, is awarded to an entering freshman and a junior student in good academic standing with demonstrated need. The scholarship is renewable. Preference is given to students from Montgomery County.

The Prahm "Starfish" Scholarship has been established to honor the United States Veterans of the Vietnam War. The scholarship will be awarded to a student from Troy, New York, with preference to be given to a Lansingburgh High School graduate or Catholic Central High School graduate who is or has been a member of the Lansingburgh Boys and Girls Club. Financial need is a criterion.

The Edward L. Pratt Memorial Scholarship has been established in memory of Edward L. Pratt, a Chemistry Major and member of the graduation class of 1956. Mr. Pratt's career in Chemistry led him to the position of Director of Analytical Chemistry for Sterling Drug, Inc. In appreciation for his valued education at Siena College, Mr. Pratt's wish was that the scholarship be awarded to a Chemistry major with a 3.1 GPA and who would not be able to attend Siena College without scholarship aid. The scholarship is to be awarded to a junior or senior at the discretion of the Chemistry Department faculty and college, however it may be given to a freshman or sophomore as long as above is recognized.

The Pucci Family Scholarship honors the family's long connection to Siena College and its mission. Scholarship awards are based on financial need and are given to students who participated in both arts and athletics in high school.

The Puig-Murphy Family Scholarship was established in 2011 by John '78 and Barbara Puig to honor his father, John E. Puig '54, his mother, Monica Murphy Puig, and his grandmother, Helene Shinnery Murphy.

The Raila Family Scholarships, established by John B. '56 and Mary E. Raila, is awarded annually to upperclass liberal arts majors in good academic standing who make significant contributions to campus life and activity. Preference will be given to Capital District area students who demonstrate financial need.

The Vito and Elaine Kelsey Ramundo '84 Scholarship established by Elaine Kelsey Ramundo '84, honors her late husband, Vito Ramundo, by creating a scholarship for a student from the Capital Region area pursuing a career in insurance. Vito was the first in his family to attend college and truly valued higher education. After attending college, he opened and grew his own Nationwide Insurance agency. This scholarship will remember his determination, successes and love for learning.

The William R. Raub Memorial Scholarship Fund was established by his family, many friends and colleagues. The scholarship honors the memory of Will '85, a partner of Cantor Fitzgerald and Company, who died in the World Trade Center disaster on September 11, 2001. The scholarship is based on academic ability and financial need. Preference will be given to highly motivated Business students with a demonstrated record of academic success who either majors or plans to major in Finance.

The Raymond Vincent and Frances Geoghan Reamer Scholarship was established to honor Raymond and Frances who instilled their dedication and commitment to education and success in one's chosen career to each

of their eight children. Two of their children and one grandson are Siena graduates: Jean Reamer Keam '76, Mark G. Reamer '83, O.F.M., D.Min., and Christopher Reamer Vinchiarello '99. In response to their commitment to Franciscan values, Ray and Frances received the friar's habit and were affiliated to the Franciscan Province of the Holy Name of Jesus on the occasion of their golden wedding anniversary in 1991. This scholarship will give preference to students from New Jersey and is awarded annually to students who demonstrate financial need, academic ability, and value the Franciscan ideal of service to others.

The Jean P. Reamer Keam '76 Scholarship is established by her family to honor her love of family and lifelong commitment to learning and community service. Beginning as a student-athlete on the inaugural women's basketball team, and later as a member of the Board of Advisors of Siena, Jean has been a faithful steward of Siena. She generously sharing her time, talent and treasure exhibiting Franciscan values in her personal and professional life. This scholarship will give preference to a Siena student-athlete who embraces and embodies the Franciscan spirit of service to others. The award is based on financial need.

The Richards Family Scholarship was established by Ruth F. and Edgar L. Richards, '66, G '68, to honor members of their family who are alumni of Siena College: James G. Richards '02; Edgar L. Richards III, '91; Holly Sheeler Richards, '89; and Kevin C. Mancino '75. Financial need is a criterion.

The Patrick R. Riley '69 and Carol J. Cusick Riley Scholarship was established by Patrick R. Riley '69 & Carol J. Cusick Riley with appreciation for Pat's "Siena Experience" and a desire to provide the same for future Siena students. Preference will be given to students from outside New York State.

The Andrew P. Ripp Scholarship was established by his family, classmates, and friends to perpetuate the memory of his courage, faith, and his most endearing personality. It is awarded annually to an upperclass student who has made significant contributions to campus life and activity, especially in the field of music. Preference is given to Capital Region students who demonstrate financial need.

1st Lt. James E. Roach Scholarship is awarded annually to a Siena student who reflects the College's ideals of academic achievement and citizenship. The scholarship was established by F. Thomas Roach and Patricia Roach Kellam in memory of their brother who was killed while faithfully serving his country in the U.S. Air Force. Financial need is a criterion.

Gilbert O. Robert Memorial Scholarship will provide an annual grant for tuition assistance to a School of Business student. The award is based on financial need.

The Francis L. '58 and Esther Roddy Family / Netrition, Inc. Scholarship, in memory of Thomas M. Roddy '88, was established by Thomas' parents, Francis L. '58 and Esther Roddy, and Netrition, Inc. The children of Francis L. '58 and Esther Roddy (Katherine M. Kenworthy, John F. Roddy '85, Theresa R. Minissale '85, Francis L. Roddy, Jr. '86, Bernard P. Roddy '90, Nicholas E. Roddy '95) are interested parties to this agreement and supportive of this scholarship. The scholarship honors the memory of Thomas '88, co-founder, President and CEO of Netrition, Inc. Thomas was a visionary, leader, and entrepreneur. He used his computer science degree from Siena along with his business acumen to found Netrition, Inc., a successful on-line retailer. The scholarship is based on academic ability and financial need. Preference will be given to students who are computer science and/or business majors and are the first child to attend college of parents who did not attend college.

The John J. '42 and Ann D. Rose Memorial Scholarship was established from the estate of John and Ann Rose. The scholarship is awarded annually to a student with demonstrated financial need from Columbia County or Warren County, both in the State of New York, who is enrolled in a program leading to a career in Education or Business Administration.

The Ruth Katherine Rosemond Scholarship is awarded annually to a student reflecting the high personal ideals of Mrs. Rosemond, the wife of Bob "Gramps" Rosemond, a long-time friend of the College. Incoming freshmen are given first priority. The scholarship, which may be renewed for students making satisfactory academic progress, is based upon financial need.

The Thomas J. Ross Scholarship will be awarded to students majoring in Business from the Warren and/or Washington counties areas. The scholarship is based on financial need.

The St. Francis Fraternity Scholarship is awarded annually based on academic achievement and financial need. This scholarship is renewable.

The W.H. St. Thomas Family Siena College Scholarship was established in 1994 to honor the late William H. St. Thomas of Gloversville, the former owner and chairman of St. Thomas, Inc. of Gloversville. The scholarship is awarded annually to a full-time student from Fulton County, New York who is majoring in Business. Financial need is a criterion.

The Scot '88 and Carol Salvador Family Scholarship established by Scot R. Salvador '88 in appreciation of all the opportunities given to him by his Siena College education. It also honors his family's legacy at Siena College. Scot's father, Reynold Salvador '44, mother, Maureen Healy-Salvador '49, and sister, Dr. Susan Salvador-Koffenberger '82, are all graduates of Siena. The scholarship is awarded based on financial need.

The Gene and Mary Sarazen Scholarship is awarded annually to students reflecting the high personal, athletic, and intellectual ideals of Dr. Sarazen. Consideration is given to candidates referred by individuals associated with the world of golf. Guidelines for academic eligibility are determined by the Admissions Committee; the initial awards are also based on need. Renewal depends on academic achievement and conduct.

The Irene F. Saulsbery Siena/AMC Scholarship has been established to honor the memory of Irene F. Saulsbery and the amazing health care professionals who treated her through her struggle with cancer. The scholarship is aimed at helping outstanding students who want to bring the humanities to the science of medicine. The scholarship will be awarded to a student enrolled in the Siena/Albany Medical College Program.

The Joseph E. Scafidi Memorial Scholarship, established by his wife, Elizabeth Kelly Scafidi, is awarded to an entering (including a transfer student) or current student on the basis of financial need. Preference will be given to a student who is enrolled in either the School of Business or School of Science and who is a graduate of South Colonie Central High School, Colonie, NY. Awardees may also be graduates of one of the following high schools: LaSalle Institute, Troy, NY; Maple Hill, Castleton, NY; Bishop Maginn, Albany, NY, or Berne-Knox-Westerlo High School. The scholarship may be renewed for four undergraduate years.

The Fulcher Scholz Family Scholarship was established by Karen Fulcher Scholz '88 and Bernhard Scholz '88 in honor of the sacrifices made by their parents to ensure they received a quality education. First preference will be given to a student majoring in Computer Science; second preference will be given to a student enrolled in another science major. The award is based on financial need and renewal is dependent on good academic standing.

The Fr. Erwin H. Schweigardt Scholarship was established through the generosity of Dr. Neva M. Mahoney to honor Fr. Schweigardt's service to the area. Preference is given to students residing in the Capital Region of New York State. Financial need is a criterion.

The Edwin T. Sells '68 Memorial Scholarship, established by his wife, Eveline Ward-Sells, honors the memory of a loyal Siena graduate and 44 year employee of Merrill Lynch, in later years as vice president. Preference is given to students in the School of Business with financial need and academic ability.

The Serbalik Family Scholarship was established in 2008 by Jim and Sandy Serbalik in honor of their parents, and out of respect for the value of a Franciscan and Catholic education and experience. The scholarship will be awarded to students based on academic merit and financial need, who are or will be competing in an individual sport sponsored by Siena and sanctioned by the NCAA.

The Rosemary J. Sgroi, rsm Scholarship in honor of her parents, Anna and Salvadore Sgroi, was established by her family, alumni, and friends to celebrate her fifty years as a Sister of Mercy and her fifteen years of service to the Siena Community. The scholarship is established for the benefit of a woman, preferably from the Arbor Hill Neighborhood in Albany, New York, who embraces the Franciscan spirit, and who would otherwise be unable to attend college. Preference will also be given to a woman who has been enrolled in the grade school and/or high school Mentoring Program at Siena.

The Toros Shamlan, Jr. Scholarship was established by Toros Shamlan, Jr. an alumnus of Siena and a retired partner from Coopers & Lybrand, LLP (PricewaterhouseCoopers LLP). Preference will be given to students who have an interest in the field of Business Administration and are from the Capital Region of New York. The scholarship is based on academic eligibility and financial need.

The Edward T. '64 and Anne Sheehan Scholarship is given to mark Edward's 50th anniversary of his graduation from Siena College. The award based on extreme financial need is given to permit a student to remain at Siena.

The Sheehan Family Scholarship was established by Eileen T. Sheehan to honor her husband, Joseph P. Sheehan '73, a proud and loyal alumnus of Siena College. Joe was devoted to his faith, his family and friends, and the Franciscans. Awards will be made to a student who exemplifies the Franciscan Spirit that Joe lived throughout his life.

The Richard J. Sheehy Scholarship is awarded annually to a sophomore, junior, or senior in good academic standing. Preference is given to French, modern language or English majors, respectively, who, in the opinion of the faculty, show promise in their major fields. Candidates are recommended by the faculty of the Modern Language Department. The award is renewable.

The Kenneth and Rachel Sheffer Scholarship was established by Ken Sheffer '80, Gary Sheffer '82, Paula Sheffer Monaco '87, Valerie Flood, and their families to honor their late parents whose love, wisdom and support allowed their children to learn, grow and contribute.

The Siena College Alumni Scholarship will be awarded to full-time Siena students with demonstrated financial need who are spouses, children or grandchildren of Siena College Alumni.

The Siena College Excellence in Communications Scholarship is awarded annually to upperclass students. The scholarship is based on financial need and academic eligibility. Preference is given to students who demonstrate or express an interest in writing, communications, and/or journalism. The scholarship may be renewed. Interested students must submit to the head of the English department an essay describing their qualifications.

The Siena Rugby Alumni Memorial Scholarship Fund was established in memory of Terence A. McShane '86 and Michael Taddonio '84 by friends, rugby teammates, and family of Terry and "Cool", who both died in the tragedies of September 11, 2001. Scholarships are given annually to upperclass rugby players who exemplify leadership within the Siena Community through their participation in student activities and community service. Financial need is a criterion.

The Silk Family Scholarship was established in 2013 by Kevin and Claudia Silk '85 to honor the experiences they had and the relationship they began at Siena College. They are proud to continue the Siena legacy with their son, Michael '15. This scholarship honors the Silk family and their commitment to higher education.

The Ralph L. Simone '79 Scholarship was established by Ralph in honor of his 30th Reunion. The scholarship will be awarded annually to an average student who demonstrates a commitment to their community through various service activities, and exhibits financial need. Preference will be given to a student from the Central NY area.

The Richard '79 and Terri (DuPré) '79 Sleasman Scholarship, endowed in 2014 in honor of our parents who stressed the value of a solid liberal arts education.

The Margaret J. Smith Scholarship was established in 2005 by David '79, Alicia, Lauren, and Madison Smith and friends. This scholarship was created to honor their mother/grandmother, a person who exemplifies all the values of St. Francis of Assisi. Preference will be given to members of the Siena women's swimming and/or water polo teams.

The Social Work Scholarship/Program Endowment Fund was established by the Social Work Advisory Board with gifts from friends and supporters of the program. The purpose of the scholarship is to attract qualified student applicants to the Social Work program. Preference is given to students admitted to the program who maintain a 3.0 GPA, who have demonstrated commitment to the values of social work, and who have need. The Social Work Department/Program will make its selection from students pre-qualified by the Financial Aid Office.

The Spore Family Scholarship is a gift of Marie O. Spore in memory of her husband, Robert H. Spore '53. Her husband was an esteemed member of Siena College's staff as Assistant Vice President for Development and worked closely with the Board of Associate Trustees and the Annual Fund until his sudden death in 1984. Both of their children are Alumni of Siena College: Judie Spore/Robards '76 and R. David Spore '93. Awards are given to students in the School of Liberal Arts based on need.

The Mae Bonfils Stanton Trust Scholarship has been established to assist qualified students from Denver County, Denver, Colorado. Recipients will be designated as "Mae Bonfils Stanton Trust Scholars."

The Stocchetti Family Scholarship was established by Filippo "Phil" F. Stocchetti '83 and Lori Jean Stocchetti to honor Phil's grandfather, Filippo Stocchetti, and his parents, Vincenzo and Teresa Stocchetti. They relocated to the United States a few months before Phil was born. Phil is forever grateful as they made it possible for him to attend Siena College, have a successful career and have the ability to give back to the Siena community. The scholarship is awarded based on financial need.

The Frances Weir Strachan Student Athlete Scholarship is awarded to students competing in intercollegiate athletics who achieve the highest grade point average for the individual academic year and are in need of financial support.

The Marjorie K. Sullivan Scholarship established by her husband, James A. Sullivan '41, is awarded annually to upperclass students in good academic standing who made significant contributions to campus life and activity. This scholarship is based on financial need and is renewable.

The Michael Taddonio/Class of 1984 Scholarship was established by Michael's family, many friends and the Class of 1984 on the occasion of its 25th Reunion in 2009. The scholarship honors the memory of Michael '84, who died tragically in the World Trade Center on September 11, 2001. Awarded annually, the qualifying student will be well-rounded, exhibiting Michael's passion of being involved in his school and community through participation in student government, athletics, or other extra-curricular activity. Financial need is a criterion.

The Tamburello Family Scholarship was originally established by family and friends to honor the memory of Anthony Tamburello and his commitment to education, his family and community. In 2015, the scholarship was grown by friends of Fr. Dennis Tamburello '75 O.F.M., Ph.D. in recognition of his many years of service to the Siena community as an alumnus, friar, professor, mentor and friend. The scholarship will be awarded to students who demonstrate financial need, who show strong academic performance and demonstrate the values of Franciscan service to others.

The Katherine and Timothy Tattam '80 Scholarship, created in 2012 by Siena Associate Trustee Timothy Tattam '80 and his wife, Katherine, was established to recognize the importance that education has played in both of their lives and their desire to assist others realize their goals. The scholarship is based on financial need.

The Teamsters Local No. 294 and Eastern Contractors Association Scholarship is awarded annually to members of the local union's construction division, related industries or to their spouses, sons, or daughters. First year and upper class students attending full-time may apply. There is a special application form, available through the union or the Financial Aid Office.

The Tesiero Family Scholarship honors the memory of John A. and Marcella C. Tesiero. The scholarship is awarded annually to a freshman and will be renewed based on academic performance and financial need. Preference is given to residents of the Capital Region and to sons and daughters of employees of Cranesville Block Company, Inc. and their subsidiaries.

The Dell N. Thompson, Ed.D., Scholarship honors Dell N. Thompson, Ed.D., who served as Vice President for Student Affairs, Vice President for Development and Director of Planned/Major Gifts during his career at the College. It was established by his many friends and colleagues, upon his retirement from Siena in 2002. This scholarship is awarded to students demonstrating financial need.

The Christie M. Tolosky Memorial Scholarship was established by her family, friends, and classmates to perpetuate the memory of Christie's spirit, her concern for fellow human beings and her love for all animals, but especially butterflies, dragonflies, horses, cats and dogs. This scholarship will be awarded annually to an upperclassman who has demonstrated care and compassion for humans and animals in the spirit of St. Francis as Christie had done during her lifetime. It will be awarded to students who have declared a major in Social Work, Sociology, or Psychology and have at least a 3.0 GPA. Preference will be given to a student who demonstrates financial need. The recommendation from someone who can attest to the character traits of the student, preferably a faculty member, is required.

The Fr. Kevin Tortorelli, O.F.M. Scholarship is established by Alumni, friends, and admirers to mark his 60th birthday. Fr. Kevin's friendship, compassion, and support touched all in so many ways. He cheered during rugby games, offered advice and counsel, married us, baptized our children, and consoled us in difficult times. His contribution as a Franciscan Friar to the Siena community and beyond is a great gift to all. The scholarship is awarded to students who participate broadly in activities while at Siena, contributing to the quality of life of the

Siena community; who will make a particular effort to know the Franciscan Friars at Siena and to share with them a sense of vision, motivation and purpose; and who have financial need.

The Trombly Family Scholarship was created in 2012 by Francis '66 "Bert" and Deborah Trombly, Jr. The scholarship is awarded based on financial need.

The Alex '96 and Gina Tronco Scholarship was established by Alex '96 and Gina Tronco to give back and to honor Siena College for giving Alex the opportunity to attend this great school and giving him the help that he needed to succeed in life. The award is given based on financial need.

The George A. Ulrich '79 Memorial Scholarship was established by James J. Treacy, Jr. '80 to honor his friend. First preference is given to soccer players. Financial need is a criterion.

The Mary Pamela Underhill Scholarship will be awarded to a student to study abroad. Mary Pamela Underhill graduated from the University of Missouri with a degree in journalism and a minor in Spanish. She had a wonderful opportunity to study abroad in Spain for a year but declined as she needed her work-study job to help fund her education. It was a regret she spoke about numerous times and a dream that never came to fruition.

The Vassallo Family Siena College Scholarship is awarded annually with preference given to students of Italian-American background from Bergen County, New Jersey who attend a catholic high school. In addition, the awardee shall have shown strong academic performance while also participating in extra-curricular and/or community activities. The award is made to a full-time Siena Business major who demonstrates financial need.

The Charles R. Vaughn Scholarship was established in 2000. Funding is provided by the Charles R. Vaughn Educational Trust, Jeremiah F. Manning, Esq. '62, Trustee. The scholarship is need based. Renewal is dependent on academic achievement and having a 3.2 cumulative average or above.

The James C. '64 and Diana A. Venter Scholarship is established by Jim '64 and Diana Venter in memory of their parents and shall be awarded to students from Albany County with demonstrated financial need as determined by the Office of Financial Aid at Siena College.

The Siena College Veteran and Cadet Fund was established by alumni and friends of Siena College along with the Professor of Military Science, Reserve Officer Training Corps to assist veterans of the United States Armed Forces and Cadets of the Mohawk Battalion, Reserve Officer Training Corps with reasonable expenses associated with attending Siena College. Lead donors to this fund include: Mr. John W. Atkinson '86 and Mr. James S. Scully '87.

The Lou Verruto Broadcast Scholarship, established by LIN TV Corp. in memory of our WIVB-TV General Manager, is awarded annually to an incoming freshman. Preference is given to a student who is pursuing a career in broadcasting and is based on academic achievement and financial need.

The Philip C. Vertucci Memorial Scholarship is awarded annually to an incoming freshman majoring in Science or Education. The recipient must be a graduate of a high school in Fulton County, preferably Gloversville High School. Appropriate academic eligibility and selection of the recipient is determined by the Admissions Committee.

The Vianney F. Vormwald, O.F.M., Memorial Scholarship, established by Christine and J. Patrick Barrett '59, recognizes Father Vianney's deep personal concern for the students he encountered during his 23 years of service as administrator and teacher at Siena. Scholarships are awarded to entering students who exhibit Father Vianney's high ideals. Scholarships are based on financial need and may be renewed.

The James M. Walsh Memorial Scholarship created by the Class of 1979 and the Walsh family is awarded annually to a junior and will be renewed for that student's senior year. Financial need is a criterion.

The John Francis Walsh, III Memorial Scholarship, established by his sister, is awarded annually to an incoming freshman. Preference is given to an economics major to provide the financial aid necessary to have a residential experience.

The Marie and Lawrence Ward Scholarship was established by their son and daughter in law, Dr. Shawn L. Ward, Ph.D. '80 and Mrs. Mary Leak Ward '80 as they celebrated their 30th Reunion at Siena and their daughter Erin's graduation from Siena in 2010. Marie and Lawrence, who are Third Order Franciscans, value faith, family and

education. This scholarship will be awarded annually to a student with junior status, preferably one pursuing a teaching certificate, with preference given to a student from northern New Jersey.

The Eleanor Mary Weisbrod Scholarship is established in 2007 by Ms. Eleanor M. Weisbrod at Siena College to honor Fr. Kevin Mackin, O.F.M., a loved and respected friend for more than fifteen years. The award will be based on financial need with preference given to a male student majoring in mathematics or participation in a pre-law program. The award is renewable and may follow a student(s) from freshmen through senior year in good academic standing.

The Dr. Arthur J. Wendth '52 Scholarship has been established by his wife Marcia, in loving memory of his dedication and devotion to his family, and in gratitude to Siena College for the pre-med program that prepared him for admission to Albany Medical College. The scholarship is based on need to a Capital District student who is a senior and enrolled in the Siena/Albany Medical College Program and demonstrates a commitment to service and Franciscan ideals.

The Ruth Shaffer Lynch Whalen Memorial Scholarship has been established by Mary Lynch Toomy and Elizabeth M. Lynch in loving memory of their mother for students involved in varsity athletic sports at Siena College or student athletes in the School of Business and based on need.

The Dr. Edwin and Mrs. Cherie Williams, III Scholarship was established by Board of Associate Trustee Dr. Edwin Williams, III and his wife, Mrs. Cherie Williams, in June 2012 to provide the education of a lifetime to future Siena students.

The Sister Karen Windelspecht Endowed Scholarship, established by her brother Bob, a 1970 graduate of Siena, to honor the memory of Sister Karen, is awarded to an incoming freshman that is a graduate of Academy of The Holy Names, Albany, NY. The recipient should have a dedication to academics with a record of academic achievement and a strong history of community service. The scholarship is based on financial need.

The Louis W. Witt, Jr. '51 Scholarship is awarded annually to a student(s) who has need and who is a member of the women's or men's golf team.

The Mark P. Woroby '81 Memorial Scholarship was established in memory of Mark P. Woroby '81. The scholarship was established by friends and classmates to create a lasting memorial to honor Mark at the place he kept so dear in his heart, Siena College. The scholarship recognizes Mark's generosity, spirit of giving, and commitment to students. The scholarship will be awarded to a student with financial need.

State and Federal Aid Programs

Siena offers or coordinates the following types of State and Federal Financial Aid Programs:

New York State Programs

Aid for Part-Time Study (APTS)

Child of Deceased Correction Officer Awards

Child of Veteran Awards

The Arthur O. Eve Higher Education Opportunity Program (HEOP)

Lottery Leaders of Tomorrow

Math and Science Teaching Incentive

Memorial Scholarships for Children and Spouses of Deceased

Police Officers and Firefighters

Merit Scholarships for Academic Excellence

State Aid to Native Americans

Tuition Assistance Program (TAP)

Regents Professional Opportunity Scholarships

Scholarship for Academic Excellence

Vietnam Veterans/Persian Gulf Veterans Tuition Awards

Federally Funded Scholarships Administered by New York State:

Robert C. Byrd Honors Scholarship Program

Paul Douglas Teacher Scholarships

Note: Rhode Island and Vermont also offer grants and scholarships to selected residents attending out-of-state institutions.

Federal Programs

Federal Direct Loan Programs (DL):
 Federal Stafford Loans (Subsidized and Unsubsidized)
 Federal Parent Loans (PLUS)
Federal TEACH Grant Program
Federal Pell Grants
Federal Supplemental Educational Opportunity Grants (FSEOG)
Federal Perkins Loan Program
Federal College Work-Study Program (FCWS)
Reserve Officers Training Corps Scholarships (ROTC)
United States Bureau of Indian Affairs Aid to Native Americans
Veterans Administration (VA) Educational Benefits

All recipients of veterans educational benefits must have their attendance verified monthly by their professors. Day students should pick up and return their forms to the Registrar's Office. Evening students should pick up and return their forms to the Office of Student Success and Academic Advising. Failure to do so may jeopardize benefits. Further information regarding veterans benefits may be obtained by contacting the Registrar's Office.

Additional information regarding State and Federal Aid programs appears later in this Section.

Criteria for Renewal of Financial Aid

Awards based on merit, without regard for need, such as the Presidential Scholarship, Franciscan Scholarship and Siena Humanities in Medicine Scholarship, are automatically renewed by the Financial Aid Office each year, provided the student earns a cumulative grade point average of at least 3.1. Athletic awards are renewed upon the recommendation of the Director of Athletics.

Siena Grants are awarded on the basis of demonstrated financial need as well as past academic performance or merit. Recipients of these grants may expect to receive renewal for four years, dependent upon filing the Free Application for Federal Student Aid (FAFSA) each year by our deadline and demonstrating financial circumstances similar to that upon which the original award was based. Any special circumstances should be submitted in writing to the Financial Aid Office.

To receive any Siena aid, a student must maintain full-time status (12 credit hours) each semester and achieve satisfactory academic progress as defined in this catalog. Courses that are being repeated may not be eligible in determining status for aid eligibility. Students considering repeating or dropping courses should speak with a financial aid officer prior to registering for the course. Less than full-time undergraduate students are eligible in some cases for Federal Direct Loans, Federal Pell Grants, and/or NYS APTS (Awards for Part-Time Students). Limited federal funding may also be available through the Federal Perkins Loan program as well as Federal SEOG and Federal College Work-Study programs. Graduate students may be eligible for Federal Direct Loans and/or Federal Plus Loans.

Satisfactory Academic Progress

A student is in good academic standing if he or she is matriculated and is considered to be making progress toward a degree or certificate. The following cumulative grade indices shall be used as a basis for loss of good academic standing:

Undergraduate Students:

Freshmen:	below 1.50 after second semester
Sophomores:	below 1.60 after first semester below 1.70 after second semester
Juniors:	below 1.80 after first semester below 1.90 after second semester
Seniors:	below 1.95 after first semester below 2.00 after second semester

Graduate Students:

Master of Science in Accounting: below 3.0 after any semester

Federal Aid

In addition to complying with the above standards of good academic standing, full-time students who are recipients of any federal aid (e.g., Pell, SEOG, CWS, PERKINS, STAFFORD, PLUS), must also complete their educational objective within a period of six years (adjusted for differences in enrollment status; e.g. half-time). When determining whether or not a student is on pace to graduate within the appropriate timeframe, the Financial Aid Office will apply the following formula:

Credits earned divided by credits attempted

To be on pace, an undergraduate student must receive a satisfactory grade in at least 67% (2/3) of the courses they attempt. A graduate student must have a satisfactory grade in at least 75% (3/4) of the courses they attempt. In addition, undergraduate students must meet the standards of satisfactory progress outlined in the following chart:

Year	1		2		3		4		5		6	
Semester	1	2	3	4	5	6	7	8	9	10	11	12
Cumulative Index	1.3	1.5	1.6	1.7	1.8	1.9	1.95	2.0	2.0	2.0	2.0	2.0
Cumulative Credits Earned	15		30		45		70		95		120	

For undergraduate students, the Financial Aid Office will evaluate whether a student is making satisfactory academic progress one time per year, after grades are posted at the end of the spring semester. For graduate students, the Financial Aid Office will evaluate whether a student is making satisfactory academic progress at the end of the fall and spring semesters, after grades are posted. When calculating the cumulative grade point average and pace, the following conditions apply:

- Transfer credits are included in credits earned and credits attempted. Grades received for transfer credits are not included in the cumulative grade point average.
- Repeated courses count as credits attempted and the higher grade is used to calculate grade point average. There are restrictions to how often a course can be repeated.
- Incomplete grades must be made up within one month after the close of the term. If not, the grades are converted to an F.
- Pass/Fail courses where a grade of P (pass) is received are counted as credits attempted and earned. Pass/Fail courses are not included in the calculation of grade point average.
- Pass/Fail courses where a grade of Z (fail) is received are counted as credits attempted. Pass/Fail courses are not included in the calculation of grade point average.

- Grades of WP (withdrawal while passing) and WF (withdrawal while failing) are counted in credits attempted but are not included in the cumulative grade point average.
- Change of major has no bearing on the calculation of cumulative grade point average, credits earned, and credits attempted.

For additional information on withdrawals, incomplete grades, repeated courses, and pass/fail courses, refer to the appropriate section of the Catalog.

A student who does not meet the above criteria due to mitigating circumstances may still be considered to be making satisfactory progress. Appeals of loss of aid must be made in writing by the student to the Financial Aid Office. The Director of Financial Aid makes the final determination of whether the appeal will be granted.

A student who has appealed and has had his or her eligibility for aid reinstated is considered to be on financial aid probation. A student on financial aid probation may receive federal funds for one payment period. At that point, the student must meet the satisfactory academic progress standards or the requirement established during the student's appeal process in order to maintain Title IV eligibility.

Under certain conditions, a student who is not enrolled in a degree program (non-matriculated) may receive a Federal Direct loan for a period not to exceed 12 months.

New York State Aid

Recipients of New York State assistance must be in good academic standing and have declared an academic major prior to the beginning of the junior year. Students who received their first State award in September, 1981, or after must display "satisfactory academic progress" and demonstrate "pursuit of program."

Standards of Program Pursuit for State Awards

State regulations define "program pursuit" as receiving a passing or failing grade in a certain percentage of a full-time course load. The standards are as follows:

- In each semester of study in the first year for which an award is made, the student must receive a passing or failing grade in at least six credit hours (i.e., 50 percent of the minimum full-time load; namely, 12 hours).
- In each term of study in the second year for which an award is made, the student must receive a passing or failing grade in at least nine credit hours (i.e., 75 percent of the minimum full-time load).
- In each term of study in the third and each succeeding year for which an award is made, the student must receive a passing or failing grade in at least 12 credit hours (i.e., 100 percent of the minimum full-time load). Note that New York State has also imposed a minimum grade point average of at least 2.0 in order to be eligible for a fourth scholarship or TAP payment.

The State will accept as a passing or failing grade the grades "A" through "F" and any grade that indicated the student (1) attended the course for the entire semester and (2) completed all the assignments. The grade of "I" is acceptable only if it automatically changes to a standard passing or failing grade within a calendar month from the date of the final examination. The grades of "W" or "AU" do not constitute grades that may be used to meet the requirement of program pursuit.

Standards of Satisfactory Academic Progress for State Awards

In addition to the above standards of "program pursuit," students generally must meet the standards of satisfactory academic progress outlined on the following chart. The progress of students with special circumstances, such as those who have transferred from another institution, have used their waiver (see below), or have received an award prior to September 1981, are monitored on an adjusted schedule.

For undergraduate students receiving their first award in 2007-2008 and thereafter, the following standards of progress must be met:

											HEOP Students
BEFORE BEING CERTIFIED FOR THIS PAYMENT OF STATE AID	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
A STUDENT MUST HAVE ACCRUED AT LEAST THIS MANY SEMESTER CREDIT HOURS	0	6	15	27	39	51	66	81	96	111	
WITH AT LEAST THIS CUMULATIVE GRADE POINT AVERAGE	0	1.50	1.80	1.80	2.0	2.0	2.0	2.0	2.0	2.0	2.0

Refer to past catalogs for the standards of progress that must be met for those students receiving their first award prior to 2007-2008.

Education law requires that no undergraduate student shall be eligible for more than four academic years (8 semesters) of State awards or five academic years if the program of study normally requires five years. Higher Education Opportunity Program students are also eligible for up to five years of State aid. A fifth year of undergraduate tuition assistance will reduce a student's eligibility for graduate support by one academic year.

Waiver Procedures for State Aid

The above standards of "satisfactory academic progress" for State student financial aid awards are absolute except when *waived* in accordance with State provisions. This waiver can be granted only once for the student's undergraduate study. The request for a waiver must be submitted by the student in writing to the Financial Aid Office. Catastrophic illness, a serious accident, personal or family problems, or other extenuating circumstances may be grounds for a waiver. A waiver may be granted at the discretion of the Director of Financial Aid.

Transfer Student Eligibility

Transfer students (and students readmitted after a period of absence from College) will be subject to procedures slightly different from those applied to students in continuing status. The Dean of the appropriate School will approve the acceptable number of transfer credits. The Director of Financial Aid is responsible for certifying financial aid and will determine the eligibility of the student for financial aid. For federal and institutional aid, at the end of each semester the student's progress will be reviewed in accordance with the college's standards as outlined above. Contact the Financial Aid Office for further information.

Appealing the Withdrawal of Aid

Recipients of federal, New York State and college grants, loans and work-study must conform to these standards of good academic standing. If an aid recipient is judged not to be in good standing, aid for the next and all subsequent semesters will be withdrawn until the student is again judged to be progressing satisfactorily.

An appeal of any decision regarding progress and aid eligibility must be made in writing by the student to the Financial Aid Office. Catastrophic illness, a serious accident, personal or family problems, or other

serious extenuating circumstances may be grounds for an appeal. The appeal may be granted at the discretion of the Director of Financial Aid. The College must certify and maintain documentation of the mitigating circumstances. This documentation will be in a form that does not violate confidentiality or compromise the rights of the student. It should be noted that a waiver is not an automatic right of a student. In the case of state aid, a waiver may be granted only once.

State and Federal Aid Programs

Siena College offers or coordinates the following types of State and Federal Financial Aid Programs.

New York State Programs

Tuition Assistance Program (TAP)

Application Procedures: Applicants must apply annually. The application deadline for the 2017-18 academic year is June 30, 2018; however, students are encouraged to file as early as possible. For academic year 2017-18, Students will be required to file the Free Application for Federal Student Aid (FAFSA) to apply for TAP and payment of other State scholarships.

New York State (NYS) residents can apply for both federal and NYS financial aid using a single online session. After completing the Free Application for Federal Student aid (FAFSA) on the web, NYS residents can link to TAP on the web. The TAP application will be pre-filled with the information provided on the FAFSA.

Before submitting the applications, the applicant should review them for accuracy.

The Higher Education Services Corporation determines the applicant's eligibility and mails an award certificate directly to the applicant indicating the amount of the grant. A Change Form must be filed if you decide to attend a college other than the NYS college listed on your TAP application. Siena College may defer payment on the basis of receipt of the award certificate. Actual payment is received after the school certifies student eligibility.

Selection of Recipients and Allocation of Awards: Tuition Assistance Program (TAP) is an entitlement program. There is neither a qualifying examination nor a limited number of awards. The applicant must: (1) be a New York State resident and a U.S. citizen or permanent resident alien; (2) be enrolled full-time and matriculated in an approved New York State postsecondary institution or program; (3) not be in default on a Federal Loan or owe any refunds to federal programs; (4) be charged tuition in accordance with the minimum award, and (5) meet prior year income criteria, based upon NYS total taxable income (after exemptions and deductions). Note that income is subject to verification by the NYS Department of Taxation and Finance.

To be considered financially independent for State programs an applicant must be:

- (1) 35 years of age or older on June 30 preceding the academic year; or
- (2) 22 years of age or older on June 30 preceding the academic year; and not:
 - (a) resident for more than 6 consecutive weeks in the current, previous or subsequent calendar years, in any house, apartment or building owned or leased by parents,
 - (b) claimed as a dependent by parents on their federal or state income tax returns for the current or previous tax years,
 - (c) recipient of gifts, loans or other financial assistance in excess of \$750 from parents in the current, or previous, or subsequent calendar years, or
- (3) under 22 years of age on June 30, preceding the academic year and meeting all other requirements of (2) above, and in addition able to meet and document at least one of the following requirements:
 - (a) both parents deceased, totally or permanently disabled or incompetent,
 - (b) receiving public assistance other than Aid to Families of Dependent Children (AFDC), food stamps, or unemployment insurance, or
 - (c) ward of a court,

- (d) financially independent due to the involuntary dissolution of family, or
- (e) a recipient of TAP as a financially independent student in the previous academic year.

Undergraduate students married on or before December 31, 2017 (2017-2018 year) and all graduate students are exempt from the requirements of provision (3) above in determination of financial independence.

Undergraduate students generally receive TAP awards for four years of study. Students enrolled in approved five-year programs, or in a State-sponsored opportunity program, may receive undergraduate awards for five years. Graduate students may receive awards for up to four years. No student (including opportunity students) may receive awards for more than a total of eight years of undergraduate and graduate study.

The amount of the TAP award is scaled according to type of school, level of study, tuition charge, and net taxable income. The maximum annual award is reduced according to family income.

Responsibilities of Recipients: Recipients must be in good academic standing in accordance with Commissioner’s Regulations and must not be in default on a loan guaranteed by the Higher Education Services Corporation. A statement of good academic standing which is established by each institution in accordance with Commissioner’s Regulations is published in this catalogue. Under certain circumstances, defaulted borrowers can be reinstated for TAP eligibility by HESC.

Questions about NYS grants and loans may be directed to NYSHESC, 99 Washington Avenue, Albany, NY 12255 or by calling 1-888-NYSHESC. (888-697-4372).

Child of Deceased Correction Officer Awards

A NYS program for undergraduate students who lost a parent as a result of injuries sustained in the line of duty.

- Student must be a NYS resident attending a NYS college full-time.
- Supporting documentation will be required to establish eligibility.

How to apply:

- To apply, complete a special Child of Deceased Correction Officer supplement to the TAP application, which can be obtained from your guidance counselor, or from the New York State Higher Education Services Corporation (NYSHESC), 99 Washington Avenue, Albany, NY 12255, (888-697-4372).
- Application deadline for 2017-18 academic year is June 30, 2018.
- The supplement is necessary to establish eligibility in the first year only.

**Regents Awards for Children of Deceased or Disabled Veterans
(Child of Veteran Awards)**

Application Procedures: A special application, obtainable from the high school principal or counselor, must be filed with the New York State Higher Education Services Corporation (HESC), Albany, NY 12255. Documentary evidence to establish eligibility is required with the application.

Selection of Recipients and Allocation of Awards: The applicant must be the child of a veteran who died, or who has a current disability of 40 percent or more, or was classified as missing in action or was a prisoner of war. The veteran must currently be a New York State resident or have been a New York State resident at time of death.

Periods of Service

Conflict or National Emergency	Period of Service
Afghanistan	09/11/02 – end of hostilities
Persian Gulf	08/02/90 – end of hostilities
Vietnam/Indochina	12/22/61 – 05/07/75
Korean Conflict.....	06/27/50 – 01/31/55

World War II..... 12/07/41 – 12/31/46
 World War I..... 04/06/17 – 11/11/18
 or as a Merchant Seaman
 during the period from
 12/07/41 to 08/15/45

Students whose parent(s) was the recipient of the Armed Forces Expeditionary Medal, Navy Expeditionary Medal, or the Marine Corps Expeditionary Medal for participation in operations in Lebanon, Grenada, or Panama.

Periods of Service

Conflict or National Emergency	Period of Service
Panama.....	12/20/89 – 01/31/90
Grenada.....	10/23/83 – 11/21/83
Lebanon	06/01/83 – 12/01/87

Regents awards to children of deceased or disabled veterans are independent of family income or tuition charge, and are in addition to such other grants or awards to which the applicant may be entitled; however, total state award per year cannot exceed tuition.

Award Schedule: Awards may be received for up to five years, depending on the normal length of the program of full-time study in a college or a hospital nursing school in New York State.

SOURCE: New York State Higher Education Services Corp.
 Albany, NY 12255

**Memorial Scholarships for Family of Deceased
 Police Officers and Firefighters**

- A NYS program for undergraduate study that provides additional financial aid to students whose parent or spouse died as a result of injuries sustained in the line of duty.
- Award amounts based on tuition and non-tuition cost of attendance at the college and certain other state and federal grants. Award amounts will not exceed the average cost of attendance at NYS public institutions.
- Must be a NYS resident attending a NYS college full-time.
- Supporting documentation will be required to establish eligibility.

How to apply:

- To apply, complete a special Memorial Scholarship supplement to the TAP application, which can be obtained from your guidance counselor, or from the New York State Higher Education Services Corporation (NYSHESC), 99 Washington Avenue, Albany, NY 12255, (888-697-4372).
- Application deadline for 2017 – 18 academic year is June 30, 2018.
- The supplement is necessary the first year only to establish eligibility.

Aid for Part-Time Study (APTS)

Aid for Part-Time Study (APTS) is for part-time undergraduate study. For the purposes of this program, part-time study is defined as being enrolled for 3 to 11 semester hours per semester. A college selects recipients from among eligible students and determines the amount of the award based upon a student’s need and the amount of funding available at the institution. An award cannot exceed tuition charges.

Application Procedures: A special APTS application is required for a student to be considered for an award. The student must also provide the Financial Aid Office with copies of the appropriate New York State tax return. Siena also requires that you file a Free Application for Federal Student Aid (FAFSA). Forms are available in the Financial Aid Office or on the siena.edu/financialaid website.

Selection of Recipients: The applicant must be (1) a New York State resident, (2) be working toward an undergraduate degree as a part-time student, (3) be in good academic standing, (4) be either a United States citizen, permanent resident alien or refugee, (5) have not used up Tuition Assistance Program (TAP) or other New York State student financial aid eligibility for full-time study.

Income Limits: Income limits based on New York State's taxable income apply.

For more information contact: Student Information
 NYSHESC
 Albany, NY 12255
 1-888-NYSHESC

State Aid to Native Americans

Application Procedures: Application forms may be obtained from the Native American Education Unit, New York State Education Department, Albany, NY 12230. The completed application form should be forwarded by the applicant to the Native American Education Unit along with the following materials: (1) official transcript of high school record or photostat of General Equivalency Diploma; (2) personal letter, setting forth clearly and in detail educational plans and desires; (3) signatures of the parents of minor applicants, approving education plans; (4) official tribal certification form; and (5) copy of acceptance letter from college attending.

Selection of Recipients and Allocation of Awards: The applicant must be: (1) a member of one of the Native American tribes within New York State and a resident of New York State; (2) have graduated from an approved high school, or have earned the General Equivalency Diploma, or be enrolled in a program in an approved postsecondary institution leading to degree-credit status and the General Equivalency Diploma; and (3) enrolled in an approved postsecondary institution in New York State.

State Aid to Native Americans is an entitlement program. There is neither a qualifying examination nor a limited number of awards.

Award Schedule: The award is for a maximum of four years of full-time study (five years, where a fifth year is required for completion of degree requirements), a minimum of 12 credit hours per semester. Students registered for less than this number will be funded per credit hour. Remedial programs are not fundable.

Responsibilities of Recipients: Students are responsible for notifying the Native American Education Unit in writing of any change in student status or program or institutional enrollment. Students must also submit semester grades at the end of each semester, showing satisfactory progress toward completion of degree or certification requirements.

SOURCE: Native American Education Unit
 New York State Education Department
 Room 475 EBA
 Albany, NY 12234
 (518) 474-0537

Vietnam Veterans Tuition Awards

This program is to assist Vietnam Veterans enrolled in degree programs on either a full- or part-time basis.

Eligibility Requirements:

- Residency in New York State on the effective date of the law (April 20, 1984) or at the time of entry into service and resumption of residency by September 1, 1988.
- Service in the U.S. Armed Forces in Indochina between January 1, 1963 and May 7, 1975.
- Discharge under other than dishonorable conditions.
- Must apply for a TAP award and a Pell Grant if the student will enroll full time for any term.
- Must apply for a Pell Grant if the student will be enrolled only for part-time study.

Duration:

- Full-time Study - Awards are available for up to 8 semesters for a 4-year program, or 10 semesters if a degree program is specifically approved as requiring 5 years. Recipients enrolled in an approved program of remedial study are considered to be enrolled in a program normally requiring 5 years.

- Part-time Study - Awards are available for eligible students taking 3 to 11 credit hours per semester, or the equivalent, in an approved undergraduate degree program. Awards are available for 16 semesters (8 years), or 20 semesters (10 years) for programs specifically approved as requiring 5 years of full-time study. Recipients enrolled in an approved program of remedial study are considered to be enrolled in a program normally requiring 5 years.

Application Procedures:

- If you have already established your eligibility (and have been assigned a VVTA eligibility number by HESC) do one of the following:
 - (a) If you plan to attend college for one or more terms on a **full-time** basis, complete the Free Application for Federal Student Aid (FAFSA) and the NYS TAP supplement available from NYSHESC or the Financial Aid Office.
 - (b) If you plan to attend college only on a **part-time** basis send a letter to NYSHESC, VVTA Program, 99 Washington Ave., Albany, NY 12255 outlining your educational plans by giving the college code, college name and the terms you will be attending as a part-time student.
- If you have **not yet established** your eligibility for a Vietnam Veteran Tuition Award call (518) 474-5642 or 1-800-NYSHESC or write to NYSHESC, VVTA Program, 99 Washington Ave., Albany, NY 12255 and request a Vietnam Veterans Tuition Award Supplement.

**The Arthur O. Eve
Higher Education Opportunity Program (HEOP)**

Application Procedures: Application is through the independent institution of higher education to which the applicant is applying.

Selection of Recipients and Allocation of Awards: The applicant must be: (1) a New York State resident; (2) academically and economically disadvantaged according to guidelines approved by the Board of Regents and the Director of the Budget. Transfer applicants must be a matriculated undergraduate student in an opportunity program at a college or university in New York State. Selection of eligible applicants for participation in HEOP is conducted by the College and the HEOP program.

Award Schedule: The amount of financial assistance and other support provided to HEOP participants is dependent on need as determined by the institution and the program, within the State guidelines.

SOURCE: Bureau of Higher Education Opportunity Programs
New York State Education Department
Albany, NY 12230

Adult Career and Continuing Education Services-Vocational Rehabilitation (ACCES-VR)

Application Procedures: For information concerning this program, contact Adult Career and Continuing Education Services-Vocational Rehabilitation (ACCES-VR), 6 Tower Place, Executive Park, Albany, NY 12203, (518) 473-8097.

Selection of Recipients and Allocation of Awards: Any disabled person, with a substantial employment handicap, who can become employable within a reasonable period of time may be eligible. ACCES-VR serves those having any physical, emotional, or mental disability except blindness.

The legally blind are served by the Commission for the Blind and Visually Handicapped, State Department of Social Services, 40 North Pearl Street, Albany, NY 12243.

Eligible applicants may receive counseling, medical examinations, and other evaluation services, physical restoration services, and instruction and training including that given at institutions of post-secondary education.

Clients are asked to share the expense, based upon State standards, of some of the services provided, such as college or university expenses, to enable the client to obtain his/her vocational objective.

Regents Professional Opportunity Scholarships

New York State annually offers Regents Professional Opportunity Scholarships, based on need, to undergraduates and graduate students pursuing careers in certain approved programs of study. In previous years, eligible programs of study have included accounting, architecture, chiropractic, dental hygiene, engineering, landscape architecture, law, nursing, occupational therapy, optometry, pharmacy, physical therapy, physician's assistant, podiatry, psychology, social work, speech language pathology/audiology and veterinary medicine. Recipients must attend an approved program in New York State on a full-time basis, be a state resident and citizen or qualifying non-citizen of the United States. Those who are economically disadvantaged and who are members of a minority group that is historically underrepresented in the chosen profession are given priority. HEOP students are also given special consideration.

Special applications are available from the NYS Education Department, Bureau of HEOP/VATEA/Scholarships, EBA, Room 1071, Albany, NY 12234. Phone: (518) 486-1319. You must file the Free Application for Federal Student Aid (FAFSA) and the special state supplement to receive payment of these scholarships each year.

Robert C. Byrd Honors Scholarship Program

Awarded each year for up to four years to high school seniors from each county in NYS. Eligibility is determined by a combination of high school grades and GED Scores or by SAT or ACT test scores and GED scores.

Applications are available in the fall from the guidance office. You must take the SAT or ACT test before the application deadline. For further information, contact: NYS Education Department, Room 1078 EBA, Albany, NY 12234 (518-486-1319).

Federal Programs

Federal Direct Student Loan Program for Undergraduates (Federal Direct loans, Federal Direct Parent PLUS)

Special Note: The effective date of the information below is April 2017. Check the Siena College Financial Aid Office website for updated information about the Federal Direct Student Loan Program.

Federal Direct *Subsidized* Loans:

- Eligibility for the federal interest subsidy on these loans is *based on financial need* as calculated from information you provide on the Free Application for Federal Student Aid (FAFSA). There is no income cutoff as long as need is demonstrated.
- The interest rate effective July 1, 2017 for the Direct Federal Subsidized Stafford loan is 4.45 %.
- The Federal Direct Subsidized Stafford loan has a 1.069% origination fee which will be deducted from the gross amount of the loan funds sent to Siena. Repayment begins six months after the student is no longer enrolled at least half time or graduated. Interest does not accrue until 6 months after the student has graduated or ceases to be enrolled at least half time.

Federal Direct *Unsubsidized* Loans:

- Eligibility for these loans is *not based on financial need*; to be eligible the Free Application for Federal Student Aid (FAFSA) must be filed.
- Payment of interest begins when the loan check is disbursed, but deferment of interest is available. Payment on principal begins six months after the student is no longer enrolled at least half time. There is no penalty for early repayment. Students that would like to make payments on their loans while enrolled at Siena need to contact their servicer directly. Information about your servicer and contact information can be found by visiting www.nsls.ed.gov.
- The interest rate effective July 1, 2016 for Federal Direct Unsubsidized loans is 3.76%.
- The Federal Direct Unsubsidized Stafford loan has a 1.0073% origination fee which will be deducted from the gross amount of the loan funds sent to Siena.

Application Procedures:

- Students must file an annual Free Application for Financial Aid (FAFSA) in order to be eligible for a Federal Direct loan. They will be notified of their eligibility for Federal Direct Subsidized and/or Federal Direct Unsubsidized loans on their Award Letter from the College. If a loan is NOT declined on the award letter, the College Financial Aid Office will electronically submit the necessary information to the Federal Direct Loan Program for origination.
- All first time Direct Federal loan borrowers must complete a Master Promissory Note (MPN) and Entrance Counseling before their loan is certified by the Financial Aid Office.
- Once the student has completed their MPN and Entrance Counseling and the loan is submitted to the Federal Direct Loan Program, the funds will be electronically submitted to the college. Authorized loan funds are applied to student accounts upon receipt by the college. Federal requirements state that all federal loans are sent to Siena College in two equal disbursements during the enrollment period.
- For more information about the application process, please visit the Siena College Financial Aid Website.

Selection of Recipients and Allocation of Awards:

To be eligible for a Federal Direct Loan a student must:

- (1) Be a U.S. citizen or permanent resident alien; and
- (2) Be enrolled in or admitted as at least a half-time student at an approved college, university or other postsecondary institution in any of the United States or in a foreign country, and
- (3) Not be in default on any federal loan or owe a refund on a federal financial aid program.

Repayment:

Once in repayment, many deferments are available depending on your status at the time of loan repayment and the type of loan. For information about your options, contact your loan servicer. Information about your servicer and contact information can be found by visiting www.nslds.ed.gov.

Deferment (After Repayment Begins):

Once you go into repayment, deferments are not automatic. You should contact your servicer as soon as possible when you seek deferment or forbearance (payment of interest only) on your loan. Repayment of all or part of a loan may be made in advance without penalty.

Loan Servicer Information:

For information about your loan servicer, visit www.nslds.ed.gov. Once at the site you will have access to detailed information about your federal loans, including the loan period, amount and servicer.

Federal Direct Parent Loans for Undergraduate Students:

- A federal program for parents of dependent undergraduate students. Parents may borrow up to the cost of attendance, less other financial aid, each year for each student.
- Eligibility is **not** based on need.
- Parents must consent to a credit check as part of the Federal Direct PLUS loan application process. Students whose parents are denied for a Federal Direct PLUS loan will be eligible for additional Federal Direct Unsubsidized loan funds.
- Federal Direct PLUS loans can be used to meet all or part of the calculated Family Contribution (EFC)
- Effective July 1, 2017, the interest rate is fixed at 7%.
- Interest begins on the day the loan is disbursed. Payment on the interest and principal usually begins 60 days after disbursement. Parents may have up to 10 years to repay.
- If the borrower meets certain requirements, deferments may be available. Contact your servicer for additional information.
- The Federal Direct PLUS Loan has a fee of 4.276% which will be deducted from the gross amount of the loan borrowed.

Application Procedures:

- Students must submit their Free Application for Federal Student Aid (FAFSA)
- Students and families can determine their maximum PLUS loan eligibility from their Award Letter

- The parent borrower will need to complete an application for the Federal Direct Loan Program. For more information about the PLUS Loan Application Process, please visit the Siena College Financial Aid website.

Federal Direct Student Loan Program for Graduate Students (Federal Direct loans, Federal Direct Graduate PLUS)

Special Note: The effective date of the information below is April 2017. Check the Siena College Financial Aid Office website for the update information about the Federal Direct Student Loan Program.

Federal Direct *Unsubsidized* Loans:

- Eligibility for these loans is *not based on financial need*; to be eligible the Free Application for Federal Student Aid (the FAFSA) must be filed.
- Payment of interest begins when the loan check is disbursed, but deferment of interest is available. Payment on principal begins six months after the student is no longer enrolled at least half time. There is no penalty for early repayment. Students that would like to make payments on their loans while enrolled at Siena need to contact their servicer directly. Information about your servicer and contact information can be found by visiting www.nslds.ed.gov.
- The interest rate Federal Direct Unsubsidized Stafford loan effective July 1, 2017 is 6%.
- The Federal Direct Unsubsidized loan has a 1.069% origination which will be deducted from the gross amount of the loan funds sent to Siena.

Application Procedures:

- Students must file an annual Free Application for Financial Aid (the FAFSA) in order to be eligible for a Federal Direct Stafford loan. They will be notified of their eligibility for Federal Direct Stafford Subsidized and/or Unsubsidized loans on their award letter from the college. If a loan is NOT declined on the award letter, the Financial Aid Office will electronically submit the necessary information to the Federal Direct Loan Program for origination.
- All first time Federal Direct Stafford loan borrowers must complete a Master Promissory Note (MPN) and Entrance Counseling.
- Once the student has completed their MPN and Entrance Counseling and the loan is submitted to the Federal Direct Loan Program, the funds then will be electronically submitted to the college. Authorized loan funds are applied to student accounts upon receipt by the college. Federal requirements state that all federal loans are disbursed in two equal disbursements during the enrollment period.
- For more information about the application process, please visit the Siena College Financial Aid Website.

Selection of Recipients and Allocation of Awards:

To be eligible for a Federal Stafford Loan a student must:

- (1) Be a U.S. citizen or permanent resident alien; and
- (2) Be enrolled in or admitted as at least a half-time student at an approved college, university or other postsecondary institution in any of the United States or in a foreign country, and
- (3) Not be in default on any federal loan or owe a refund on a federal financial aid program.

Repayment:

Once in repayment, many deferments are available depending on your status at the time of loan repayment and the type of loan. For information about your options, contact your loan servicer. Information about your servicer and contact information can be found by visiting www.nslds.ed.gov.

Deferment (After Repayment Begins):

Once you go into repayment, deferments are *not* automatic. You should contact your servicer as soon as possible when you seek deferment or forbearance (payment of interest only) on your loan. Repayment of all or part of a loan may be made in advance without penalty.

Loan Servicer Information:

For information about your loan servicer, visit www.nslds.ed.gov. Once at the site you will have access to detailed information about your Federal Loans, including the loan period, amount and servicer.

Federal Direct Graduate PLUS Loan for Graduate Students:

- A federal program for graduate students. Graduate students may borrow up to the cost of attendance, less other financial aid, each year for each student.
- Eligibility is **not** based on need.
- Students must consent to a credit check as part of the Federal Direct Graduate PLUS loan application process. For students that do not pass the credit check, they may reapply with an endorser.
- Students must utilize Stafford loan funds before applying for Federal Direct Graduate PLUS loan funds.
- Effective July 1, 2017, the interest rate is fixed at 7%.
- Interest begins on the day the loan is disbursed. Payment on the interest and principal usually begins 60 days after disbursement. Graduate students may have up to 10 years to repay.
- If the borrower meets certain requirements, deferments may be available. Contact your servicer for additional information.
- The Federal Direct Graduate PLUS loan has a 4.276% origination fee which will be deducted from the gross amount of the loan borrowed.

Application Procedures:

- Students must submit their Free Application for Federal Student Aid (FAFSA).
- Students can determine their maximum Federal Direct Graduate PLUS loan eligibility from their award letter.
- The student borrower will need to complete an online application with the Federal Direct Loan Program. For more information about the Federal Direct Graduate PLUS loan application process, please visit the Siena College Financial Aid website.

Federal Pell Grant Program

Application Procedures: Students must apply for Pell by filing the Free Application for Federal Student Aid (FAFSA).

The completed application should be submitted for processing according to the directions included on it. A Federal Student Aid Report will then be sent to the applicant. The amount of the applicant's award is determined by the financial aid officer at the post-secondary institution attended. Upon enrollment, funds are credited to the student's institutional account.

Selection of Recipients and Allocation of Awards: The Federal Pell Grant Program is an entitlement program. The applicant must be enrolled as an undergraduate student in an approved post-secondary institution and must need financial assistance to continue his/her education.

Financial need is determined by a formula applied to all applicants. It was developed by the U.S. Office of Education and is reviewed annually by Congress. Expected Family Contribution is calculated by this formula.

Federal Pell Grants are paid for up to six years as required to complete a first baccalaureate degree. Awards may be used for tuition, fees, books and living expenses.

Award Schedule: Pell grants are awarded each year the financial need and academic progress requirements are met by the student. The amount of the award will be affected by costs of attendance and enrollment status. The Pell award is not duplicative of State awards.

Responsibilities of Recipients: The student must continue to make satisfactory academic progress in the program in which he/she is enrolled. The student must not owe any refunds on a Federal Pell Grant or other awards paid, or be in default on repayment of any student loan.

Teacher Education Assistance for College and Higher Education Grant Program (TEACH)

Application Procedures: Students must apply by filing the Free Application for Federal Student Aid (FAFSA). The completed application should be submitted for processing according to the directions included on it. A Federal Student Aid Report will then be sent to the applicant. All TEACH Grant recipients must complete Entrance Counseling and sign the TEACH Grant Agreement to Serve each year before the funds are credited to the student's institutional account.

Selection of Recipients and Allocation of Awards: The TEACH grant program provides grants of up to \$4,000 per year to students who intend to teach as a full-time teacher in a high need field in a public or private elementary and secondary school that serves students from low-income families. To be eligible, the student must:

- Be a US Citizen or eligible non-citizen;
- Be accepted into Siena's Teaching Certificate program (exceptions may apply);
- Be enrolled in coursework that is necessary to begin a career in teaching or plan to complete such coursework. Such coursework may include subject area courses (e.g., math courses for a student who intends to be a math teacher);
- Meet certain academic achievement requirements (generally, scoring above the 75th percentile on a college admissions test or maintaining a cumulative GPA of at least 3.25); and
- Sign a TEACH Grant Agreement to Serve each year the TEACH Grant is received.

High-Need fields offered at Siena are in the following subject areas:

- Foreign Language
- Mathematics
- Science

Schools Serving Low Income Students:

Schools serving low-income students include any elementary or secondary school that is listed in the Department of Education's Annual Directory of Designated Low-Income Schools for Teacher Cancellation Benefits.

Award Schedule: The full- and part-time students are eligible. The maximum grant is reduced for part-time students. Second Baccalaureate students are not eligible to receive the TEACH Grant.

Responsibilities of Recipients: In exchange for receiving a TEACH Grant, the recipient must agree to serve as a full-time teacher in a high need field in a public or private elementary or secondary school that serves low-income students. The recipient must teach for **at least four academic years within eight calendar years** of completing the program of study for which a TEACH Grant is received.

IMPORTANT: If the recipient fails to complete the service obligation, all amounts of the TEACH Grants received will be converted to a Federal Direct Unsubsidized Stafford Loan. The recipient must then repay this loan to the US Department of Education and will be charged interest from the date the grant(s) was disbursed.

Once the grant is converted to a loan it cannot be converted back to a grant.

Federal Supplemental Educational Opportunity Grants (SEOG)

Application Procedures: Students must apply by filing the Free Application for Federal Student Aid (FAFSA). The Financial Aid Office is responsible for awarding SEOG to those students demonstrating the lowest expected family contributions, with preference given to those who are also Federal Pell Grant recipients.

Selection of Recipients and Allocation of Awards: The applicant must show extraordinary financial need, determined by a federally approved needs analysis system.

Responsibilities of Recipients: The student must continue to make satisfactory academic progress.

Federal Perkins Loans

Application Procedures: Application must be through filing the Free Application for Federal Student Aid (FAFSA). The Financial Aid Office is responsible for determining who receives a Perkins Loan. Information on loan deferments and cancellation provisions for borrowers who go into certain fields of teaching or specified military duty, are available from Student Accounts, which administers repayment of Perkins Loans. All first time Federal Perkins loan borrowers must complete a Master Promissory Note (MPN) and Entrance Counseling before their loan is certified by the Financial Aid Office

Selection of Recipients and Allocation of Awards: Loans are available to students based on financial need. Students must be enrolled at least half-time in approved postsecondary institutions.

Responsibilities of Recipients: Continued eligibility is dependent on the maintenance of satisfactory academic progress and demonstrated financial need. The current interest rate, payable during the repayment period, is 5.0% on the unpaid principal. Repayment begins nine months after graduation or leaving school, and may extend up to 10 years. Payment is not required for up to three years of active U.S. military service, or service in the Peace Corps, VISTA or similar volunteer service in a private non-profit organization, temporary total disability, service in an internship preceding a professional practice. An institution, under certain conditions, may extend the repayment period up to 10 additional years for low income individuals.

Federal College Work-Study Program (FCWS)

Application Procedures: Students must apply by filing the Free Application for Federal Student Aid (FAFSA). Eligibility is determined and work arrangements made by the Financial Aid Office. Students locate available positions through the Office of Career and Professional Development job portal, CareerSaint. Available positions are updated throughout the academic year.

Students must complete required tax forms and authorization forms before starting in their position. Additional information is provided on the Siena College Financial Aid website.

Selection of Recipients and Allocation of Awards: The applicant must be matriculated at Siena on at least a half-time basis and must demonstrate financial need. Recipients will earn a pre-determined hourly rate and are paid on a biweekly basis.

Responsibilities of Recipients: Satisfactory academic progress must be maintained. Work must be performed when classes are not in session. Signed time cards must be submitted to Student Accounts on a bi-weekly basis.

Reserve Officer Training Corps (ROTC)

The Army, Navy and Air Force offer financial assistance to qualified students. The Army offers full tuition plus mandatory fees. The Navy and Air Force offer scholarships that may cover full tuition, plus fees and books. A monthly stipend may also be awarded. Students with Army ROTC scholarships fulfill the military component of their scholarship at Siena. Students with either a Navy or Air Force scholarship take their military science courses at Rensselaer Polytechnic Institute in Troy. As benefits and regulations differ from Army ROTC, contact the Rensselaer Polytechnic Institute, AFROTC Detachment 550, (518) 276-6236.

United States Bureau of Indian Affairs Aid to Native Americans Higher Education Assistance Program

Application Procedures: Application forms may be obtained from the Bureau of Indian Affairs Office. An application is necessary for each year of study. An official needs analysis from the college Financial Aid Office is also required each year.

Each first-time applicant must obtain tribal enrollment certification from the Bureau agency which records enrollment for the tribe.

Selection of Recipients and Allocation of Awards: To be eligible, the applicant must (1) be at least one-fourth American Indian, Eskimo or Aleut; (2) be an enrolled member of a tribe, band or group recognized by the Bureau of Indian Affairs; (3) be enrolled in or accepted for enrollment in an approved college or university, pursuing at least a four-year degree; and (4) have financial need.

Responsibilities of Recipients: For grants to be awarded in successive years, the student must make satisfactory progress toward a degree, and show financial need. Depending on availability of funds, grants may also be made to graduate students and summer session students. Eligible married students may also receive living expenses for dependents.

United States Department of Interior
Bureau of Indian Affairs
New York Liaison Office
Federal Building, Room 523
100 South Clinton Street
Syracuse, NY 13202

Veterans Administration (VA) Education Benefits

To apply, contact your local Veterans Administration Assistance Agency (under U.S. Government), or call toll free 1-888-GIBILL1 (1-888-442-4551).

Certification of Veterans Administration forms regarding attendance at the College or general information regarding veterans benefits may be secured by calling, writing or visiting the Office of the Registrar, Siena College, 515 Loudon Road, Loudonville, New York 12211-1462.

Institutional Refunds

Refunds of Institutional charges will be given in the following areas:

Tuition: Tuition will be refunded on a proportionate basis according to the following schedule:

FALL AND SPRING SEMESTERS	
Two weeks or less	80%
Three weeks	60%
Four weeks	40%
Five weeks	20%
Over five weeks	No refund

Housing Rate: If a resident student withdraws during a semester, he or she will be refunded in accordance with the terms specified in the housing license .

Meal Rate: The College will refund dining charges on a pro-rated basis based upon the date the student withdraws from the college.

Other Fees: Other fees will not be refunded in whole or in part.

Students who receive financial aid from Siena College funds and terminate their studies before the end of a semester may be required to refund a portion of their Siena aid resulting from their termination. The amount of Siena College funds required to be refunded to the College will be calculated on a proportionate basis according to the tuition refund schedule.

Return of Federal Refunds

Federal Title IV Fund recipients who terminate their studies before the end of a semester may be required to refund a portion of their aid resulting from their termination. Students should see a financial aid officer before withdrawing to determine the effect on their current or future financial aid.

A student who finds it necessary to withdraw from all courses before the conclusion of the fall or spring semester or summer sessions must first obtain a withdrawal form from the appropriate School office. After full-time students have obtained the withdrawal form, they must consult with the appropriate school Dean. The withdrawal form must be signed by the School Dean, and returned to the Office of the Registrar. After part-time students have obtained the withdrawal form, they must consult with the Office of Student Success and Academic Advising. A resident student must also advise the Office of Community Living (Sarazen Student Union, room 318). The date of withdrawal will be the later of the students documented last date of attendance at an academically related activity or the date indicated by the student as their intended withdrawal date when the student submits a written statement of withdrawal. If the student fails to complete the withdrawal process, the withdrawal date will be the midpoint of the payment period.

Allocation of Costs:

The following costs are classified as Institutional Costs:

- Tuition
- Fees
- Room and Board (if contracted with the institution)
- Books and Supplies

The following costs are classified as Non-Institutional Costs:

- Room and Board (not contracted with the institution)
- Personal and Transportation
- Dependent Care
- Disability
- Health Services/Pharmacy Charges
- Library Fines
- Parking Fines

Return of Federal Funds - Institutional Responsibility:

Federal Regulations require that the institution return federal aid for students with an official date of withdraw on or before the 60% point of the payment period to the federal government. The amount to be returned is the lesser of the following:

$$\frac{\text{Total federal aid \$ disbursed or that could have been disbursed}}{\text{X (\# of days remaining in payment period / \# of days on payment period)}} = \text{Total federal aid \$ unearned}$$

OR

$$\frac{\text{Total institutional charges incurred for the payment period}}{\text{X (\# of days remaining in payment period / \# of days on payment period)}} = \text{Total federal aid \$ unearned}$$

Return of Federal Funds - Student Responsibility:

Federal Regulations require that a student return or repay, remaining unearned federal aid based on the following formula:

$$\begin{aligned} &\text{Total federal aid \$ disbursed} \\ &\text{Less: Total Federal aid \$ earned} \\ &\underline{\text{Less: Federal aid \$ returned by the institution}} \\ &\text{Basis for Student Repayment} \end{aligned}$$

$$\begin{aligned} &\text{*Less: All outstanding federal loans for the current academic year} \\ &\text{Basis of Federal Grant Funds for Student Repayment} \\ &\underline{\text{X} \hspace{10em} 50\%} \\ &= \text{Total Federal Grant funds student is required to repay} \end{aligned}$$

***Note:** If the funds that are required for student repayment are loan funds, the loans should be repaid according to the terms and conditions outlined in the promissory note signed by the borrower. If the funds are grant funds, call 800-4-FED-AID (800-433-3243) to make arrangements to repay these funds.

Refunds and Repayments must be distributed in the following order:

1. Unsubsidized Federal Direct Loans
2. Subsidized Federal Direct Loans
3. Federal Perkins Loan
4. Federal Direct PLUS Loan
5. Federal Direct PLUS Loans
6. Federal Pell Grants
7. Federal Supplemental Educational Opportunity Grants
8. Other grant or loan assistance authorized by Title IV of the HEA

The information in this catalog is accurate as of April 2017. Since program changes may occur, students should always check with the Financial Aid Office for updated information.

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