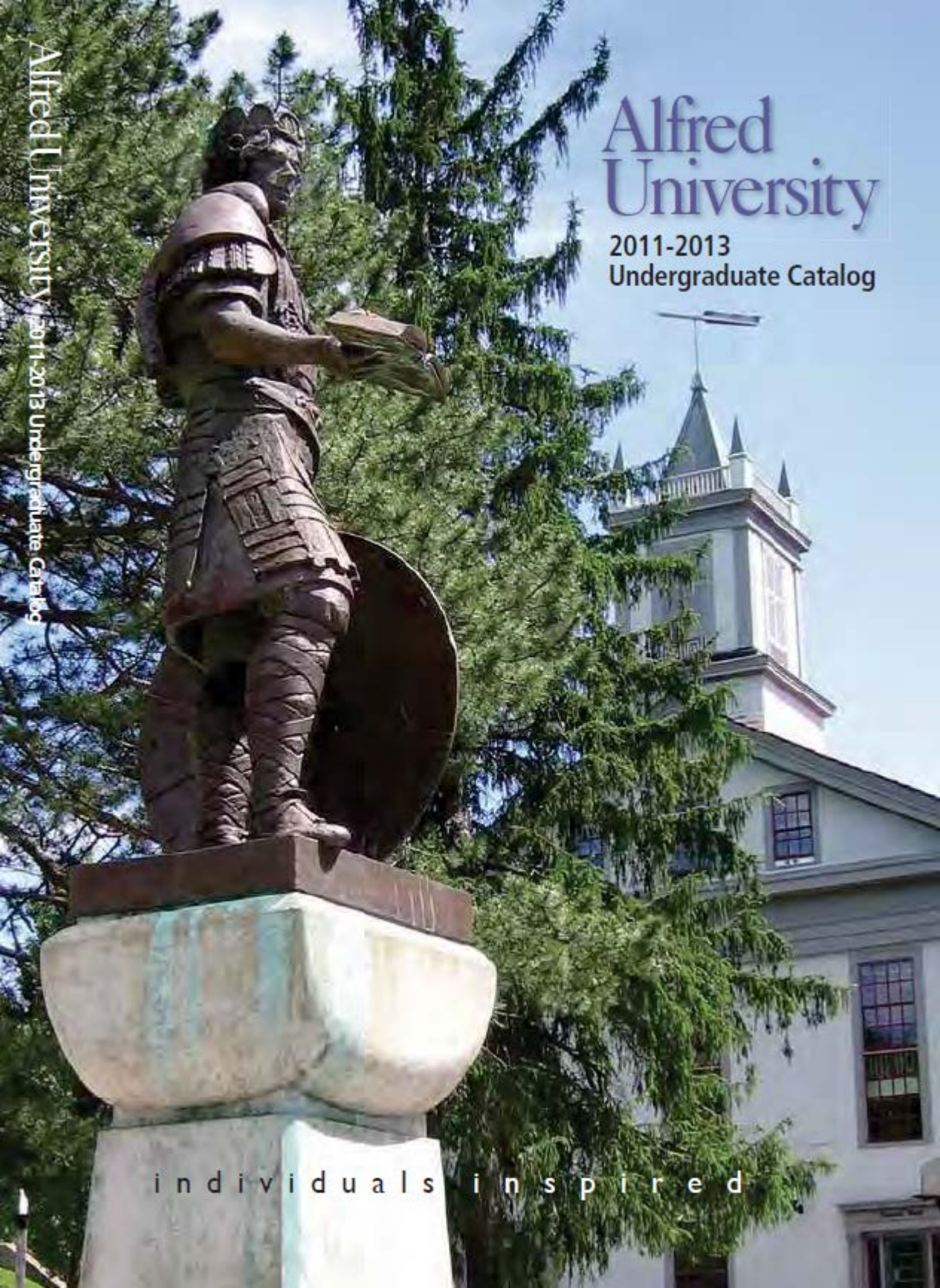

Alfred University

2011-2013 Undergraduate Catalog

individuals inspired

Alfred University 2011-2013 Undergraduate Catalog

Alfred University
One Saxon Drive, Alfred, New York 14802
Editor: Lawrence J. Casey, Registrar, Alfred University
Design: Rick McLay, Director of Publications, Alfred University

Notice:

The provisions of this catalog are not to be regarded as a contract between any student and the University. Course contents and regulations are under constant review and revision. The University reserves the right to change any provisions, regulations, or requirements set forth herein, and the right to withdraw or amend the contents of any listed courses as may be required or desirable.

Policy Against Discrimination:

Alfred University considers candidates for admission, applicants for financial aid and applicants for employment on the basis of individual qualifications and does not discriminate on the basis of gender, age, race, color, national or ethnic origin, religion, sexual orientation or disability. Further, the University does not engage in any of the said forms of discrimination in the administration of admission and educational policies, scholarship and loan programs, the athletic program, or in any other school administered program. Alfred University is an affirmative action, equal opportunity employer.

Alfred University

2011-2013 Undergraduate Catalog

Office of Admissions
Alumni Hall
One Saxon Drive
Alfred, NY 14802-1205
800-541-9229 607-871-2141 Fax 607-871-2198
admissions@alfred.edu
www.alfred.edu

Financial Aid Office
607-871-2159

Scholarships

A scholarship is a form of gift assistance that does not require repayment. It usually denotes a merit-based award which recognizes academic achievement and promise or another special attribute. Alfred University offers a wide variety of scholarships to acknowledge the special abilities of new freshmen, transfer, and international students. Students can apply for most of the scholarships listed, except as noted, by completing the application for admission.

Multiple Scholarship Policy: With the exception of the Competition Scholarships, students are not permitted to simultaneously receive multiple University scholarships. In cases where students qualify for more than one scholarship, the award of greater value will be made. Tuition Exchange and Tuition Remission recipients may not receive a University scholarship in addition to these benefits.

Scholarship Award Values: Scholarship amounts reflected in this publication are effective with the fall semester 2012 for freshmen and transfers enrolling at Alfred University for the first time. Scholarship awards to currently enrolled students will remain at the student's award value when admitted to AU.

PROGRAM	ELIGIBILITY
Alfred University Presidential Scholarship Source: Alfred University Awarded by: Alfred University	1. Entering full-time freshman, transfer, and international students. Generally, high school seniors who have a 3.7* or better average, and an SAT ≥ 1250 or an ACT ≥ 27 (preferred) are evalutated. Extracurricular activities and good citizenship are also considered. 2. Transfer students completing an Associate's Degree or transferring from four-year schools with a 3.3 cumulative grade point average are considered. 3. A campus interview is encouraged.
Alfred University Dean's Scholarship Source: Alfred University Awarded by: Alfred University	1. Entering full-time freshman, transfer, and international students. Generally, high school seniors with a 3.2*or better average, and an SAT ≥ 1100 or ACT ≥ 24 (preferred) are evaluated. Extracurricular activities and good citizenship are also considered. 2. Transfer students completing an Associate's Degree or transferring from a four-year school with a 3.0 or better cumulative grade point average are considered. 3. A campus interview is encouraged.
Alfred University Art Portfolio Scholarship Source: Alfred University Awarded by: Alfred University	Entering full-time freshman, transfer, and international students in the School of Art & Design.

** AU recalculates high school GPAs to a 4.0 scale using core academic subjects.*

Academic Program Key For Scholarships and Grants

Alfred University is a private institution. However, some of our academic programs receive support from NY State. State-supported programs have a different tuition structure than the private college programs. In addition, the tuition structure varies among the private college programs. Therefore, the dollar value of University scholarship and grant awards will vary depending on enrollment in a specific private college program or a State-supported program, and the student's NY State residency status.

PRIVATE COLLEGE PROGRAMS include:
- College of Liberal Arts & Sciences
- College of Business
- Mechanical Engineering
- Undecided Engineering

STATE-SUPPORTED PROGRAMS include:
- School of Art & Design
- Biomedical Materials Engineering Science
- Ceramic Engineering
- Glass Engineering Science
- Materials Science and Engineering

VALUE AND HOW DETERMINED	HOW TO APPLY
For programs in the Colleges of Liberal Arts & Sciences and Business, annual awards are $15,000. In the State-supported programs, annual awards are $9,000 per year for NY State residents and $11,500 per year for non-residents. Annual awards for the Mechanical and Undecided Engineering programs are $11,500 per year. Renewal requires continuous full-time enrollment and a 3.0 cumulative grade point average. Scholarship awards are determined by the Office of Admissions' Scholarship Committee.	File a completed application for admission and indicate an interest in the scholarship program.
For programs in the Colleges of Liberal Arts & Sciences and Business, annual awards are $13,000. In the State-supported programs, annual awards are $7,500 for NY State residents and $10,000 for non-residents. Annual awards for the Mechanical and Undecided Engineering programs are $10,000 per year. Renewal requires continuous full-time enrollment and a 2.75 cumulative grade point average. Scholarship awards are determined by the Office of Admissions' Scholarship Committee.	File a completed application for admission and indicate an interest in the scholarship program.
$9,000 per year for NY State residents and $11,500 per year for non-residents. Renewal requires continuous full-time enrollment and a 2.75 cumulative grade point average after the freshman year and a 3.0 for subsequent years. Scholarship selection is on a competitive basis and made by a School of Art & Design faculty committee during portfolio review.	File a completed application for admission and submit a portfolio for review. Students wishing consideration for this scholarship need to complete the admissions process and submit their portfolio by February 1.

PROGRAM	ELIGIBILITY
Jonathan Allen Award for Leadership Source: Alfred University Awarded by: Alfred University	In honor of its second president, Jonathan Allen, Alfred University acknowledges students who have demonstrated leadership and made significant contributions through volunteer work in school, community, church, or public service activities. 1. Entering full-time freshman, transfer, and international students. Generally, high school seniors who have an 2.9* or better average, and an SAT ≥ 1000 or an ACT ≥ 21 (preferred) are evaluated. 2. Transfer students completing an Associate's Degree or transferring from a four-year school with a 2.7 or better cumulative grade point average are considered.
Phi Theta Kappa Scholarship Source: Alfred University Awarded by: Alfred University	Full-time transfer students with an Associate's Degree from a two-year college who are members of Phi Theta Kappa.
Alfred University Competition Scholarship Source: Alfred University Awarded by: Alfred University	Entering full-time freshmen may compete for awards in the academic areas of engineering, mathematics, and English composition.
Alfred University Tuition Exchange Scholarship Source: Alfred University Awarded by: Alfred University	Full-time students who are certified as eligible to participate by a member institution within the Tuition Exchange Inc. Program.

** AU recalculates high school GPAs to a 4.0 scale using core academic subjects.*

VALUE	HOW TO APPLY
For programs in the Colleges of Liberal Arts & Sciences and Business, the annual award is $11,000. In the State-supported programs, the annual awards are $6,000 per year for NY State residents and $8,500 per year for non-residents. Annual awards for the Mechanical and Undecided Engineering programs are $8,500 per year. Renewal requires continuous full-time enrollment and a 2.5 cumulative grade point average. Scholarship awards are made on a competitive basis by the Office of Admissions' Scholarship Committee.	File a completed application for admission and indicate an interest in the scholarship program. Submit a statement emphasizing your volunteer activities with your admission application.
For programs in the Colleges of Liberal Arts & Sciences and Business, the annual award is $15,000. In the State-supported programs, annual awards are $9,000 per year for NY State residents and $11,500 per year for non-residents. Annual awards for the Mechanical and Undecided Engineering programs are $11,500 per year. Awards are renewable provided the student maintains continuous full-time enrollment and a 3.0 cumulative grade point average. Scholarship awards are determined by the Office of Admissions' Scholarship Committee.	File a completed application for admission and document your Phi Theta Kappa membership.
$1,000 to $2,500 per year. Awards are renewable provided the student maintains a 3.0 cumulative grade point average, continuous full-time enrollment, and good citizenship.	Contact the Admissions Office or Financial Aid Office during early September of the senior year of high school for dates.
The competitions are held on the Alfred University campus during the fall and winter of the senior year of high school. Standard full-time tuition rate up to a maximum of eight semesters for enrollment in one of the University's undergraduate degree programs. Scholarships are awarded on a competitive basis by a University committee. Candidates are evaluated based on high school/college academic performance, standardized test scores, extracurricular involvement, and citizenship.	Apply for admission by the preferred application deadline of February 1st. Be certified as eligible to participate by a Tuition Exchange Inc. member institution and demonstrate a completed application for admission with all supporting documents and credentials by February 15th.

Grants

A grant is a form of gift assistance, usually based on financial need, that does not require repayment. Alfred has numerous grant programs that are available to students who show financial need. Other main sources of grant funding are the federal and various state governments. Students apply for these grant programs by completing the Free Application for Federal Student Aid, Alfred University Financial Aid Application, and their home state's grant application.

CITIZENSHIP: Unless noted otherwise, students must be a U.S. citizen or permanent resident to receive grant funding.

PROGRAM	ELIGIBILITY
Alfred University Trustee Grant Source: Alfred University Awarded by: Alfred University	Full-time matriculated undergraduate students entering the private college programs. Applicants must demonstrate financial need and be a U. S. citizen or permanent resident.
Alfred University Ceramic Grant Source: Alfred University Awarded by: Alfred University	Full-time matriculated undergraduate students entering the State-supported programs. Applicants must demonstrate financial need and be a U.S. citizen or permanent resident.
Alfred University Housing Grant Source: Alfred University Awarded by: Alfred University	Full-time matriculated undergraduate students residing in a University owned or operated residence facility. Applicants must demonstrate financial need and be a U.S. citizen or permanent resident.

Academic Program Key For Scholarships and Grants

Alfred University is a private institution. However, some of our academic programs receive support from NY State. State-supported programs have a different tuition structure than the private college programs. In addition, the tuition structure varies among the private college programs. Therefore, the dollar value of University scholarship and grant awards will vary depending on enrollment in a specific private college program or a State-supported program, and the student's NY State residency status.

PRIVATE COLLEGE PROGRAMS include:
- College of Liberal Arts & Sciences
- College of Business
- Mechanical Engineering
- Undecided Engineering

STATE-SUPPORTED PROGRAMS include:
- School of Art & Design
- Biomedical Materials Engineering Science
- Ceramic Engineering
- Glass Engineering Science
- Materials Science and Engineering

VALUE AND HOW DETERMINED	HOW TO APPLY
Awards are made to supplement family, federal, and state resources. Grant amounts will vary and reflect the individual financial circumstances of the student and family. Freshman awards for the past academic year ranged from $2,000 to $15,000. New students are considered based on quality of credentials as candidates for admission, and financial need as determined by the Student Financial Aid Office. Awards may be continued based on an annual determination of need and academic performance. Generally, students must maintain a 2.0 cumulative grade point average and demonstrate satisfactory academic progress to continue receiving funds.	Students should file the Free Application for Federal Student Aid (FAFSA), and Alfred University Financial Aid Application. Fall Priority Deadlines: Early Decision – December 15; Freshman Regular Decision – March 15; Transfer Regular Decision – May 15. Applications are considered as long as funds are available.
Awards are made to supplement family, federal, and state resources. Grant amounts will vary and reflect the individual financial circumstances of the student and family. Freshmen awards for the past academic year ranged from $500 to $11,000. Same as Trustee Grant.	Same as Trustee Grant.
Awards are made to supplement family, federal, and state resources. Grants may range from $500 to $2,500. Students must reside in a University owned or operated housing facility to receive this grant which is based on financial need. Awards may be renewed with an annual determination of need, housing status, and satisfactory academic progress.	Same as Trustee Grant.

PROGRAM	ELIGIBILITY
Federal Pell Grant Source: Federal Government Awarded by: Federal Government	Matriculated undergraduates with exceptional financial need who are U.S. citizens or permanent residents. Applicants with a previous Bachelor's Degree are ineligible.
Federal Supplemental Educational Opportunity Grant (SEOG) Source: Federal Government Awarded by: Alfred University	Matriculated undergraduate students enrolled at least half-time with exceptional financial need. Students must be U.S. citizens or permanent residents without a Bachelor's Degree.
New York State Tuition Assistance Program (TAP) Source: New York State Awarded by: New York State	New York State residents demonstrating financial need, as determined by the TAP analysis, who are enrolled full-time in an undergraduate degree program or full-time in a graduate degree program.
New York State Educational Opportunity Program (EOP) Source: New York State Awarded by: Alfred University	Undergraduate New York State residents enrolling in the state-supported programs as a first-time freshman or EOP transfer student. Students must meet New York State mandated economic guidelines and educational eligibility criteria for admission to EOP.
New York State Arthur O. Eve Higher Educational Opportunity Program (HEOP) Source: New York State Awarded by: Alfred University	Undergraduate New York State residents enrolling in the private college programs as a first-time freshman or HEOP transfer student. Students must meet New York State mandated economic guidelines and educational eligibility criteria for admission to HEOP.

VALUE AND HOW DETERMINED	HOW TO APPLY
Annual awards range up to $5,550. May be continued throughout college subject to annual review by application. Pell is limited to 18 semesters. Awards are based on financial need as determined by the Federal Need Analysis Methodology.	Complete the Free Application for Federal Student Aid.
At Alfred, annual awards range from $100 to $1,000. Funds are limited. Administered by the Student Financial Aid Office, awards are based on financial need as determined through the Federal Need Analysis Methodology. Federal Pell Grant recipients receive priority.	Complete the Free Application for Federal Student Aid.
For 2011-12, full-time annual awards for undergraduates ranged from $500 to $5,000. Undergraduates are limited to eight semesters of payment. After the fourth semester payment, the annual award is reduced by $100. TAP award amounts are dependent on annual NY State funding. New York State Higher Education Services Corporation evaluates applications and notifies recipients based on NYS taxable income which is adjusted for family members in full-time college attendance. Dependent full-time undergraduates with no other family members in college must have a New York State net taxable family income of $80,000 or less to qualify.	File the Free Application for Federal Student Aid (FAFSA) and the NY State Express TAP Application.
An average grant is $1,000 per year, limited to a total of ten semesters of payment. Educational and economic criteria must be met as determined by the EOP Office, the Admissions Office, and the Student Financial Aid Office according to New York State EOP guidelines.	Follow financial aid application procedures outlined in this booklet. Further information is available from the Admissions Office, EOP Office, or Student Financial Aid Office.
An average grant is $2,000 per year, limited to a total of ten semesters of payment. Educational and economic criteria must be met as determined by the HEOP Office, the Admissions Office, and the Student Financial Aid Office according to New York State HEOP guidelines.	Follow financial aid application procedures outlined in this booklet. Further information is available from the Admissions Office, HEOP Office, or Student Financial Aid Office.

Loans

Educational loans provide money for parents and students to help pay for educational expenses while the student is enrolled. For the two major loan programs, the Federal Direct Loan and Perkins Loan, interest and principal payments are not required until after the student ceases to be enrolled at least half-time.

PROGRAM	ELIGIBILITY
Federal Direct Loan (FDL) Subsidized Federal Direct Loan Unsubsidized Federal Direct Loan Source: Federal Government Processed by: Alfred University	Undergraduate and graduate students matriculated in a degree program for at least six credits per semester and who are U.S. citizens or permanent residents may apply.
Federal Perkins Loan Source: Federal Government / Alfred University Awarded by: Alfred University	Undergraduate and graduate students with financial need who are carrying at least six credits per semester. Applicants must be U.S. citizens or permanent residents. Preference is given to full-time students.
Federal Direct Parent Loan for Undergraduate Students (PLUS) Source: Federal Government Processed by: Alfred University	Parents of dependent undergraduate students who are U.S. citizens, permanent residents, or eligible non-citizens. Student must be attending at least half-time (six credits per semester) in a degree-granting program.
Alumni Loan Program Source: Alfred University Awarded by: Alfred University	Undergraduate students enrolled full-time who are U.S. citizens or permanent residents.

Perhaps the best features of the educational loan programs are the low interest rates, lower than most other types of personal loans, and the extended repayment periods, up to ten years. Loan programs are available to both students and parents.

VALUE AND HOW DETERMINED	HOW TO APPLY
The FDL Program makes two types of loans available to students: a subsidized loan and an unsubsidized loan. Subsidized Direct Loan eligibility is based on financial need as determined by the Federal Need Analysis Methodology. When a student qualifies for a subsidized loan, the federal government does not charge interest to the student while the student is enrolled in school. Students who do not qualify for any or a full subsidized loan are eligible for the unsubsidized Direct Loan. Under the unsubsidized FDL Program, the student is responsible for making the interest payments while enrolled in school. There are two options available regarding these interest payments. Students may make monthly or quarterly interest payments, or the student may agree to add the interest due to the principal of the loan. Annual base FDL limits are: $5,500 ($3,500 subsidized and $2,000 unsubsidized) for freshmen, $6,500 ($4,500 subsidized and $2,000 unsubsidized) for sophomores, and $7,500 ($5,500 subsidized and $2,000 unsubsidized) for juniors and seniors. Students may not borrow more than the annual loan limit in any combination of subsidized or unsubsidized FDL. The interest rate is a fixed rate currently set at 6.8% for subsidized and unsubsidized loans for loan periods 7/01/12 through 6/30/13. Direct Loans have 1% in federal fees deducted at disbursement. Repayment of loan principal begins six months after the student ceases to be enrolled on at least a half-time basis. The repayment period may extend up to ten years depending on the total amount borrowed. The minimum monthly payment is $50. Independent students may have additional unsubsidized Direct Loan eligibility beyond the annual base loan limits specified above. This additional annual eligibility may not exceed the cost of attendance minus other aid (including the base FDL). Freshmen and sophomores may be eligible to borrow up to $4,000, and juniors and seniors up to $5,000.	Complete the Free Application for Federal Student Aid and Direct Loan Master Promissory Note. Students must also complete an entrance counseling session. Instructions for completing the FDL Master Promissory Note and entrance counseling will be provided to students by the Student Financial Aid Office at the appropriate time.
Repayment of loans plus 5 percent interest begins nine months after the student graduates, terminates attendance, or drops below six credit hours. The repayment period may extend up to 10 years, depending on the amount borrowed. The minimum monthly payment is $40. Cancellation and deferment provisions are available. Administered by the Financial Aid Office, eligibility is based on financial need as determined by the Federal Need Analysis Methodology. At Alfred, annual awards range from $500 to $1,000, depending on the student's financial need.	Complete the Free Application for Federal Student Aid.
Parents may borrow up to the cost of attendance minus other aid for each financially dependent undergraduate student. Borrowers must demonstrate a satisfactory credit rating to participate. Repayment of principal and interest generally begins 60 days after full disbursement. PLUS loans have a fixed interest rate currently set at 7.9% and federal fees of 4% are deducted at disbursement. The repayment period may extend up to 10 years, depending on the amount borrowed. The loan may not exceed the difference between the student's cost of attendance and total financial assistance, including Direct Student Loans. The Student Financial Aid Office will notify borrowers of the amount of their eligibility upon request or receipt of a PLUS application.	Complete the Free Application for Federal Student Aid and submit a PLUS Application. PLUS Application instructions will be provided to parents by the Student Financial Aid Office at the appropriate time.
Eligibility is based on financial need as determined by the Financial Aid Office. Annual awards generally range from $500 to $2,000. Repayment of the loan plus interest begins nine months after the student ceases to be enrolled as a half-time student. The interest rate is 5%. Minimum monthly payment is $50, and the repayment period is 10 years.	Complete the Free Application for Federal Student Aid and Alfred University Financial Aid Application.

Employment

At institutions of higher education, employment refers to on- or off-campus work opportunities which enable students to earn money for educational expenses while they are enrolled.

At Alfred, part-time employment opportunities are available based on financial need or without regard to need. Many of our students earn money for expenses by participating in Federal College Work-Study, the need-based employment program, while others secure employment which is not based on financial need.

PROGRAM	ELIGIBILITY
Federal College Work-Study Program (CWS) Source: Federal Government / Alfred University Awarded by: Alfred University	Students with financial need. Must be U.S. citizens or permanent residents.
Non-Work-Study Employment	All students are eligible to apply for any non-Work-Study positions available.

Other Aid Programs

These aid sources may not be available to all students and do not usually represent a substantial portion of most financial aid packages. However, they may be of significant benefit to those students who qualify. Students should contact their high school guidance offices, or the individual programs listed for further information. All students are encouraged to spend time in their local libraries, guidance offices or on the internet researching lesser-known aid opportunities that may be available to them.

PROGRAM	ELIGIBILITY
Federal Aid to Native Americans Source: Federal Government Awarded by: Federal Government	Enrolled members of a Federally recognized Indian Tribe, Alaska Natives, or 1/4 degree Indian blood descendent of a member of a Federally recognized tribe. Must attend full-time in a degree program.
New York State Aid to Native Americans Source: New York State Government Awarded by: New York State Government	Members listed on an official tribal role of a New York State tribe, or children of enrolled members who are New York State residents.

VALUE AND HOW DETERMINED	HOW TO APPLY
Financial need determines the amount students may earn. The average CWS employee works 5 - 10 hours per week during the academic year at the minimum wage rate. Students receive a biweekly paycheck of earnings. The Student Financial Aid Office provides a comprehensive listing of Work-Study positions on the University's website. Administered by the Student Financial Aid Office, based on financial need as determined by the Federal Need Analysis Methodology.	Complete the Free Application for Federal Student Aid.
Wage rates, number of hours available, application and hiring procedures, are at the discretion of the individual campus employers.	The Student Financial Aid Office provides a listing of available non-Work-Study positions on the University's website.

VALUE AND HOW DETERMINED	HOW TO APPLY
Dependent upon need and availability of funds. Higher ED Grants are administered by your tribe. Grants may be awarded in successive years if student is making satisfactory academic progress, shows financial need, and funding is available.	Information and application materials are available from the education office of the tribe with which you are affiliated or possess membership.
Up to $2,000 per year for full-time study. Eligibility is determined by the New York State Education Department, Native American Education Unit.	Applications are available from the New York State Education Department, Native American Education Unit, Room 347, EBA, Albany, NY 12234, 518-474-0537.

PROGRAM	ELIGIBILITY
New York State Office of Adult Career and Continuing Education Services - Vocational Rehabilitation (ACCES-VR) Source: New York State Government Awarded by: New York State Government	Individuals who have a disability that interferes with employment may qualify. Eligibility decisions are made on an individual basis by the New York State Office of Adult Career and Continuing Education Services - Vocational Rehabilitiation (ACCES-VR).
Veteran's Benefits Source: Federal Government Awarded by: Federal Government	Veterans based on their service and/or participation in VA Educational Programs, children of deceased veterans, or disabled veterans with a service-related disability may qualify.
Special New York State Programs	New York State offers and coordinates several specialized scholarship and grant opportunities for students. In general, students must be New York State residents attending an approved program in New York State full-time. Specific eligibility criteria vary according to the program.
Other State Grant Programs	Varies from state to state. Generally, students must be enrolled full-time and demonstrate financial need according to their state agency's formula. Students who are residents of Connecticut, Rhode Island, Vermont, Maryland, Michigan, and the District of Columbia may use their state grants at Alfred University.

VALUE AND HOW DETERMINED	HOW TO APPLY
Grant awards vary depending upon the applicant's individual circumstances. Administered by the New York State Office of Adult Career and Continuing Education Services - Vocational Rehabilitiation (ACCES-VR) through its regional offices.	Contact your local New York State Office of ACCES-VR or go online at www.acces.nysed.gov.
Dependent upon length of service, number of dependents, and number of semester hours the student is carrying. Based on eligibility criteria established by the Federal Veterans Administration.	Contact your local Veterans Administration Office, go online at www.va.gov, call 800-827-1000, or contact the AU School Certifying Official (SCO) located in the AU Student Service Center 607-871-2123.

For further information, contact New York State Higher Education Services Corporation, Student Information at 888-697-4372 (toll-free) or www.hesc.com, or Alfred University's Student Financial Aid Office. A listing of some of these programs is provided.

Scholarship for Academic Excellence; Memorial Scholarships for Families of Deceased Police Officers, Peace Officers, Firefighters and Emergency Medical Service Workers; Regents Award for Children of Deceased and Disabled Veterans; Veterans Tuition Awards; World Trade Center Memorial Scholarship;

Military Service Recognition Scholarship; Flight 587 Memorial Scholarship; Flight 3407 Memorial Scholarship; NY State Math & Science Teaching Incentive Program.

Varies from state to state. Awards are usually based on financial need.	Contact your state grant agency or high school guidance counselor.

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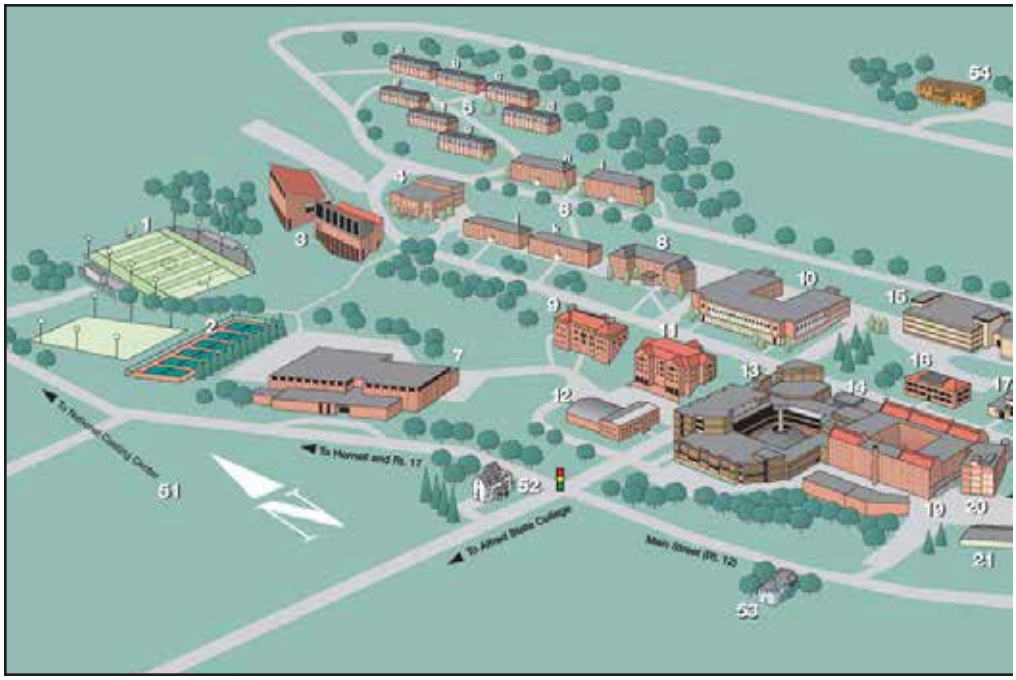
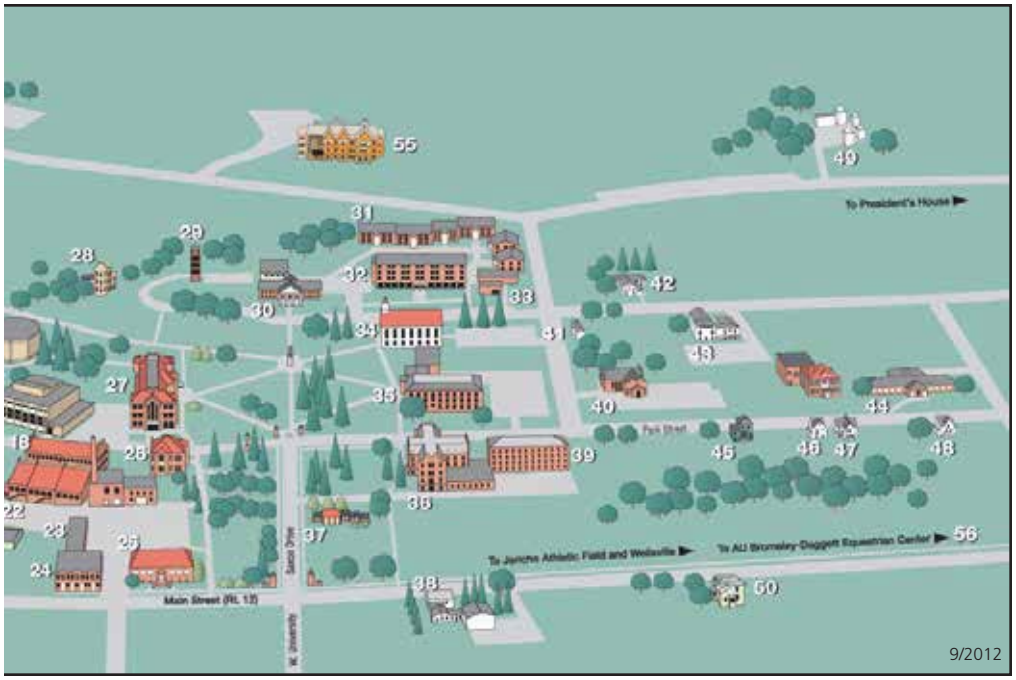
Campus Map

Note: To simplify identification of Alfred University buildings certain Alfred Village structures have been omitted from this map.



1 Merrill Field
2 Tennis Courts
3 The Marlin Miller Performing Arts Center
4 Ade Dining Hall
5 Pine Hill Suites
  a Norwood
  b Phillips
  c Tredennick
  d Crawford
  e Shults
  f Davis
  g Kenyon
6 First Year Residence Halls
  h Reimer Hall
  i Tefft Hall
  j Barresi Hall
  k Cannon Hall
7 McLane Physical Education Center
8 Bartlett Hall
9 Franklin W. Olin Building
10 McMahon Building
11 Scholes Library
12 Davis Gym
13 Harder Hall
14 McGee Pavilion
15 Science Center
16 Perlman Hall
17 Myers Hall
18 Seidlin Hall
19 Binns-Merrill Hall
20 Hall of Glass Science and Engineering
21 Student Engineering Projects Lab (STEP)
22 Seidlin Annex/Engineering Laboratories
23 Physical Plant and Public Safety Office
24 Greene Hall
25 Carnegie Hall
26 Kanakadea Hall
27 The Arthur and Lea Powell Campus Center
28 The Robert R. McComsey Career Development Center
29 Davis Memorial Carillon
30 Howell Hall



31 Ford Street Apartments
32 Openhym Residence Hall
33 Judson Leadership Center
34 Alumni Hall
35 Herrick Memorial Library
36 Brick Residence Hall
37 Village Bandstand
38 Crandall Hall
39 Kruson Residence Hall
40 Saxon Inn
41 Gothic Chapel
42 International House
43 Child and Family Services
44 Wellness Center
45 Honors House
46 Confucius House
47 Language House
48 Environmental Studies House
49 The Stull Observatory
50 Hillel House
51 National Casting Center (off map)
52 Welcome Center at the Fasano House
53 Cohen Arts Center
54 Joel's House
55 Ann's House
56 The Bromeley-Daggett Equestrian Center at the Maris Cuneo Equine Park (off map)

Parking for visitors to the Admissions Office is available in the Alumni Hall lot (34). Parking is available to other visitors for short periods in the remaining lots or at parking meters on village streets. Persons remaining more than three days should obtain a temporary permit from the Safety Office in Physical Plant (23).

Alfred University at a Glance

Accreditation
Middle States Association
NY State Education Department
Accreditation Board for Engineering and Technology (ceramic, electrical, and mechanical engineering, glass engineering science, materials science and engineering)
National Association of Schools of Art and Design
American Chemical Society
Association to Advance Collegiate Schools of Business
Commission on Accreditation of Athletic Training Education
Teacher Education Accreditation Council

Academic Calendar
Two semesters and Summer Sessions (see page 321)

Faculty (Full-time)
Doctorates or terminal degrees in their discipline: 90%
Faculty/student ratio: 1:12
Average class size: 18 students

College of Business
Offers the B.S. degree with majors in Accounting, Finance, Marketing, and Business Administration. Offers 8 minors. 4+1 MBA Program available.

College of Liberal Arts and Sciences
Offers the B.A. degree with majors in:
- Biology
- Chemistry
- Communication Studies
- Comparative Cultures
- Criminal Justice Studies
- Early Childhood/Childhood Education
- English
- Environmental Studies
- Foreign Language and Culture Studies
- General Science
- Geology
- Gerontology
- Global Studies
- History
- Individually Structured Major
- Interdepartmental Major
- Interdisciplinary Art
- Mathematics
- Philosophy
- Physics
- Political Science
- Psychology
- Sociology
- Spanish
- Theatre

Offers the B.S. degree with major in Athletic Training
Offers 40 minors
Pre-Professional advising available for Art Therapy, Law, Medicine and Health Professions

NY State College of Ceramics School of Art and Design
Offers the B.F.A. degree with concentrations in:
ceramic art, drawing, painting, photography, graphic design, print media, video, sonic art, interactive media, or glass and sculpture
Offers the B.S. degree in Art History and Theory.

Kazuo Inamori School of Engineering
Offers the B.S. degree with majors in:
- Biomedical Materials Engineering Science
- Ceramic Engineering
- Electrical Engineering
- Glass Engineering Science
- Materials Science and Engineering
- Mechanical Engineering

Graduation Requirements
- 120 to 133 semester hours (depending on program)
- Complete all requirements for a major
- Global Perspective requirement
- PE requirement
- Cumulative GPA 2.0 or better
- Senior year in residence
- Minimum of 45 semester credit hours earned at AU

The Graduate School
Offers Master's Degrees and Doctoral degree programs (see Graduate School Catalog)

Facilities and Equipment
Arthur and Lea Powell Campus Center
A 60,000 sq. ft. center for students, faculty, staff, and community; one of the finest centers for academic and social activities of its kind.

John L. Stull Observatory
Six domes house a 9 inch refractor, reflectors of 14, 16, 20, and 32 inch apertures (the 32 inch is computer-controlled), two solar telescopes and two commercial 8 inch telescopes.

Art Galleries
Museum of Ceramic Art
Fosdick-Nelson Gallery
Robert Turner Student Gallery

Theater
Seating capacity for 450 students, semi-thrust proscenium

Technology
100 Mpbs network provides internet access to every residence hall room, classroom, and office 24/7. Computing labs are available with access to Windows, Macintosh, Linux or UNIX operating systems. Wireless internet access available.

Libraries
Herrick Memorial Library
Scholes Library of Ceramics

Extracurricular Activities and Organizations
Over 75 special interest clubs
Family Weekend
Homecoming Weekend
Hot Dog Day
Student Activities Board (SAB)
Student Volunteers for Community Action
Student Senate
Kanakadea, yearbook
16 honor societies
Popular and classical films, weekly
Intramural and club sports
Religious activities (places of worship in the area)
Comedy troupes
Campus media (newspaper, radio and TV)
Student productions in theatre, dance and music
Music ensembles
Professional and student art exhibits

Athletic Facilities
75' long, 6-lane pool, 13' deep diving "L" with one- and three-meter boards
Basketball, volleyball, handball, racquet ball, tennis, badminton, and squash courts
Football, softball, soccer, lacrosse fields, including multipurpose artificial surface for intercollegiate sports, recreational, and intramural use
Gibbs Fitness Center
Daggett Equestrian Center

Intercollegiate Sports (NCAA Division III)

Basketball	M/W
Cross Country	M/W
Equestrian	M/W
Football	M
Lacrosse	M/W
Skiing	M/W
Soccer	M/W
Softball	W
Swimming/Diving	M/W
Tennis	M/W
Track & Field	M/W
Volleyball	W

Housing Information
Six semesters of on-campus residence requirement for entering freshmen
Co-ed residence halls
Some single rooms available
Pine Hill suites
Ford Street apartments (on-campus apartments)
Common Interest Housing

Services
Airport and bus station shuttle
Alcohol & Other Drug Education
Career Development Center
Financial Aid Office
Peer tutoring
Peer mentor program
Residence Life
Services for students with disabilities
Shortline Bus service to New Jersey and New York City
Student Service Center (Registrar and Student Accounts Office)
Tutoring Assistance
Wellness Center (Counseling and Health Services)

Admissions Information
Application Deadlines
Freshman Applicants-Early Decision for Fall enrollment by **December 1**
Applicants for Fall enrollment preferred by **February 1**
Applications for Spring enrollment by **December 1** (no January enrollment for Art and Design)

Transfer Applicants
Fall enrollment by **August 1;**
Spring enrollment by **December 1**
Art and Design: Fall enrollment preferred deadline **March 1**

Other Deadlines
$300 deposit due **May 1**
Art portfolio due **December 1** for Early Decision candidates; **February 1** for Regular Decision; **March 1** for Fall transfers; **November 15** for Spring transfers

Expenses
Non-Statutory units:
- College of Business and College of Liberal Arts and Sciences

Tuition: $25,974
- Inamori School of Engineering: Electrical, Mechanical & Undecided

Tuition: $21,026
Student Service Fee $ 910
Room & Board (avg): $11,498
Statutory unit:
- New York State College of Ceramics (School of Art & Design and Inamori School of Engineering -- all majors except Mechanical, Electrical, and Undecided Engineering

New York State Residents
Tuition $15,280
Student Service Fee $ 910
Room & Board (avg): $11,498
Out-of-State Residents
Tuition: $21,026
Student Service Fee $ 910
Room & Board (avg): $11,498
(see p. 19)

Financial Aid
90% of all undergraduates receive some type of financial assistance: university, federal, state, and private.

Note: See pp. 30-43 for a complete listing of scholarships, state and federal awards and loans.

University Profile

Pioneer Seventh Day Baptists who had settled in the foothills of the Allegheny Mountains founded Alfred University as a select school in 1836. Alfred became the first coeducational institution in New York State and the second in the nation. About 2,000 full-time undergraduate and 300 graduate students work and live in 52 buildings on a scenic 232-acre hillside campus adjoining the village of Alfred. Another 400 acres of recreational land is just minutes away.

The nonsectarian University is comprised of the privately endowed College of Business, the College of Liberal Arts and Sciences, and the New York State College of Ceramics (Kazuo Inamori School of Engineering and School of Art and Design). Bachelors, masters and doctoral degrees are awarded as the culmination of Alfred University's academic and professional programs.

Vision, Mission, Values

Vision

Alfred University will be nationally recognized as a preeminent, small comprehensive university dedicated to inspiring individuals and preparing them to excel intellectually and personally.

Mission

Alfred University aims to provide academically challenging programs in a student-centered environment in order to prepare well-educated, independent thinkers ready for lives of continuous intellectual and personal growth. We are committed to both teaching and research, and are devoted to the pursuit of technical expertise, artistic creativity and humanistic learning.

Values

- At Alfred University we value:
- A learning environment that promotes open exchange of ideas, critical thinking, global awareness, technological literacy, intellectual honesty, and community involvement;
- A work environment that promotes open communication, recognition of achievement, and the development of personal potential;
- Research and scholarship that advance the frontiers of knowledge, contribute to graduate and undergraduate teaching, and demonstrate creativity in all fields of endeavor;
- Diversity in people and cultures, ideas and scholarship
- A campus that is safe, attractive, and promotes health and wellness;
- A caring community that respects each individual, fosters intellectual curiosity and growth, promotes and models good citizenship, and encourages enlightened leadership.

Admissions

Policy for Applicants

Alfred University seeks talented, motivated students, nationally and internationally, of diverse cultural, ethnic, and economic backgrounds, who will contribute to the campus learning community, with particular attention to students who will pursue intellectual and cultural achievements consistent with the University mission.

Alfred University's mission is to foster a spirit of inquiry, search for knowledge through fundamental and applied research, and transmit that knowledge to our students in a highly personalized environment. Valuing diversity, tolerance, interdisciplinary work, and active learning, the University strives to develop our students' abilities to think critically, communicate clearly, understand an increasingly complex, technology-dependent, international society, and respond creatively to change, preparing them for a life of achievement and leadership.

In reviewing applications, the Committee on Admissions considers the following factors most important:

- Rigor of high school or preparatory curriculum
- Grades
- Standardized test results, including the ACT or the SAT
- Extracurricular involvement
- Letters of recommendation
- Essay

Individualized attention is given to every applicant.

Freshman Requirements

Academic Preparation

Students will be considered for admission if they are secondary school graduates in a college preparatory program, or when they submit evidence of having completed an equivalent degree of education. The secondary school program should include a minimum of 16 academic units. Each academic division of the University suggests a different distribution of the academic units, as follows:

College of Business

- 4 units of English
- 3-4 units of social studies and history
- 3-4 units of college preparatory mathematics (algebra I and II, geometry, pre-calculus)
- 2 units of laboratory science

  The remainder of the 16 academic units should be earned within the fields listed above, in a foreign language, or in business courses.

College of Liberal Arts & Sciences

- 4 units of English
- 3-4 units of social studies and history
- 2-3 units of college preparatory mathematics (algebra I and II and geometry)
- 2 units of laboratory science (biology, chemistry, and physics)

  The remainder of the 16 academic units should be earned within the fields listed or in a foreign language.

School of Art & Design

- 4 units of English
- 3-4 units of social studies and history
- 2 units of college preparatory mathematics preferred (algebra and geometry)
- 2 units of laboratory science
- Portfolio (see below)
  The remainder of the 16 academic units should be earned within the fields listed above, in a foreign language, or in art courses.

Inamori School of Engineering

- 4 units of English
- 4 units of college preparatory mathematics preferred (algebra I and II, geometry, calculus)
- 3 units of laboratory science (biology, chemistry, and physics preferred)
- 2-3 units of social studies and history
  The remainder of the 16 academic units should be earned within the fields listed above, in a foreign language, or computer science.

Procedures for Freshman Applicants

Applicants should submit the following items when applying for admission:

- Application for Admission along with a $50 non-refundable fee or a fee waiver certificate
- An official high school transcript which includes all academic work to date
- At least one letter of recommendation (guidance counselor, teacher, principal, headmaster, etc.)
- Essay
- Results from ACT or SAT tests

Mail all items to:

Office of Admissions
Alfred University
One Saxon Drive, Alumni Hall
Alfred, New York 14802

In addition, all applicants are strongly encouraged to visit the campus. To schedule an interview, contact the Office of Admissions (800-541-9229 or admissions@alfred.edu) at least two weeks prior to the visit. During a campus visit, a student can take a campus tour, have an admissions interview, meet with a financial aid counselor, attend a class, meet with a faculty member, and/or meet with a coach. Specialized tours are available for the School of Art and Design and the Inamori School of Engineering.

Application Deadlines

- December 1 - Early decision for fall enrollment.
- February 1 - Preferred deadline for regular fall enrollment.
  Applicants who apply by this date will receive a decision by late March. Portfolio deadline for Art & Design candidates is February 1.
- December 1 - Deadline for spring enrollment. (Freshman applications for spring enrollment are not accepted from students wishing to major in Art & Design.)

School of Art & Design Portfolio Requirements

You are strongly encouraged to submit the required portfolio electronically through our SlideRoom portal: alfred.slidroom.com. Your portfolio should include 15 to 20

samples of work, 4 of which should be drawing from direct observation. You may upload images (jpg), video (mov, wmv, flv), music (mp3) or .pdf files.
For good image quality and fast upload, image files should be sized with a maximum dimension of 1024 px @ 72 dpi. Please keep video files under 60 MB each. There is a nominal non-refundable fee for this service and an email address is required to register. SlideRoom's online portal offers additional instructions for submitting your work. If you need technical assistance, please email support@slideroom.com or contact their helpdesk at slideroom.zendesk.com.

Your work may also be submitted as digital images on a CD or DVD. Submit digital photographs as JPEG files. Organize all digital images into a single digital folder. Video, animation (mov) and audi (mp3) may be submitted on a CD or DVD. Use a permanent marker to label discs with your full name. Include a list of disc content with image information such as size and media in the CD or DVD case. Total running time for all clips combined should be 5 minutes or less. Send all materials in a crush proof container. Please do not send us the only copy of your portfolio. Include a self- addressed stamped mailer with sufficient postage if you want your portfolio returned. Your portfolio may be submitted with your application or separately.

Portfolios should be mailed to:

Alfred University
Office of Admissions
One Saxon Drive
Alfred, New York 14802-1205

The deadline for regular admission is February 1. The deadline for early decision is December 1. Dates for submitting transfer student portfolios vary and are outlined in the following Transfer Admissions section.

Freshman Applicant Options

Early Decision

The early decision admission option offers applicants, whose first choice is Alfred University, the opportunity to apply for the fall semester by December 1 and receive a decision by December 15. Accepted early decision candidates are expected to withdraw their applications to all other post-secondary institutions. Early decision applicants should:

- Submit the application for admission and $50 fee or application fee waiver certificate to the Office of Admissions by December 1, checking the Early Decision box on the application.
- Ask the high school guidance office to submit an official academic transcript with ACT or SAT scores and a letter of recommendations to the Office of Admissions by December 1.
- Submit an Early Decision Contract (requires multiple signatures) and an essay by December 1.

Final acceptance is contingent upon successful completion of the senior year. Early decision applicants who are not accepted may be deferred to regular decision and reviewed by mid-March for the fall semester. For early decisions candidates, a $300 non-refundable deposit is due by January 15. Financial aid applicants must submit the deposit within ten days of receiving a financial aid award letter; however, financial aid forms must be submitted in accordance with the early decision application deadline.

Early Admission

Students who wish to enter AU after completing the junior year of secondary school may qualify for admission. Please contact the Office of Admissions for information and application procedures.

Deferred Admission

Alfred University understands that some students may benefit by postponing entrance for up to two years. Deferred admissions applicants should:

- Follow the application procedures for regular admissions, including paying the enrollment deposit.
- Notify the Office of Admissions by August 1 of their intention to delay entering the University.
- Notify the Office of Admissions in writing at least three months before planning to enroll.

Should the two-year deferment period lapse without written notification, the $300 deposit will automatically be forfeited. A deferral student who enrolls at another college sacrifices the deposit and relinquishes his/her place in the freshman class. Such students may reapply as transfer students and, if accepted, will have the previous deposit applied toward first semester tuition charges.

Common Application

Alfred University is a member of the Common Application. Common Application forms are available at high school guidance offices or on-line at www.commonapp.org.

Notification of Freshman Applicants

Applicants who have submitted all credentials to the Office of Admissions by February 1 can expect to receive a decision in mid-February; decisions will continue to be announced through mid-March.

When the Office of Admissions receives the final secondary school transcript, an acceptance becomes final. Applicants must also fulfill any specific requirements set by the Committee on Admissions.

A $300 deposit for fall semester enrollment is due by May 1, or within two weeks of admission notification for those accepted after May 1. Students enrolling in January should submit the deposit by December 15, or within two weeks of acceptance if notified after December 15.

Of the $300 deposit, $100 is credited toward matriculated students' first semester charges, and $200 is held throughout a student's enrollment. This is returned, less any unpaid University charges, after graduation or withdrawal (if done in accordance with established procedures). The $300 deposit is non-refundable to those who choose not to attend Alfred University.

Transfer Requirements

Applicants who are attending or have attended a junior or senior institution will be considered for admission if they meet the following criteria:

- Completed/Attempted credit hours at an accredited college or university
- Achieved a cumulative GPA of at least 2.5 on a 4.0 scale
- Demonstrated good social standing at the previous institution

The applicant's most recent academic performance is the primary consideration in transfer application review. The secondary school performance of applicants with fewer than 30 semester hours credit is also considered. Transfer candidates with GPA's below 2.5 but above 2.0 may be considered for admission; however, a personal interview with an admissions counselor is recommended and a specific essay is required. The essay should discuss why the student's academic performance has been inconsistent with ability and why the student expects to achieve greater success at Alfred University. Additional faculty recommendations are also encouraged.

Transfer applicants should submit the following credentials:

- A completed transfer application with essay and $50 fee or application fee waiver certificate. The deadline for the fall semester is August 1 and the spring is December 1. (Please refer to Transfer Art Applicants for application and portfolio deadlines.)
- Official transcripts from all colleges and universities previously attended
- An official high school transcript
- At least one letter of recommendation from a faculty member at the institution from which the student is transferring. If a faculty recommendation cannot be obtained, recommendations may also be submitted by professional members of the student's community who are not relatives and who can serve as valid references.
- Essay
- International transfer applicants should refer to the International Student Policies and Procedures.

Final acceptance is contingent upon the student successfully completing his/her current academic program and paying the required deposit.

Students are also responsible for furnishing the Coordinator of Transfer Admissions with catalogs from all colleges previously attended if these are not already on file.

Transfer Art Applicants

In addition to the procedures for transfer applicants listed above, a portfolio is required from all applicants to the School of Art & Design (see freshman section on portfolio submission).

You are strongly encouraged to submit the required portfolio electronically through our SlideRoom portal: alfred.slidroom.com. Your portfolio should include 15 to 20 samples of work, 4 of which should be drawing from direct observation. You may upload images (jpg), video (mov, wmv, flv), music (mp3) or .pdf files. For good image quality and fast upload, image files should be sized with a maximum dimension of 1024 px @ 72 dpi. Please keep video files under 60 MB each. There is a nominal non-refundable fee for this service and an email address is required to register. SlideRoom's online portal offers additional instructions for submitting your work. If you need technical assistance, please email support@slideroom.com or contact their helpdesk at slideroom.zendesk.com.

Your work may also be submitted as digital images on a CD or DVD. Submit digital photographs as JPEG files. Organize all digital images into a single digital folder. Video, animation (mov) and audi (mp3) may be submitted on a CD or DVD. Use a permanent marker to label discs with your full name. Include a list of disc content with image information such as size and media in the CD or DVD case. Total running time for all clips combined should be 5 minutes or less.

Send all materials in a crush proof container. Indicate the type of admission as "Transfer" on the outside of the portfolio. Please do not send us the only copy of your portfolio. Include a self-addressed stamped mailer with sufficient postage if you want your portfolio returned. Your portfolio may be submitted with your application or separately.

Portfolios should be mailed to:

Alfred University
Office of Admissions
One Saxon Drive
Alfred, New York 14802-1205

Fall transfer art applicants with 24 or fewer studio credit hours should follow freshman application deadlines (see previous section). Other transfers interested in fall acceptance should apply by March 1 for maximum consideration. After March 1, transfer applicants will be considered depending on availability of space in specific media areas.

Spring transfer art applicants should submit their portfolios by November 15. Applicants will be notified of the admissions decision by December 1, and portfolios will be returned on or before that date.

Transfer art students accepted and placed at the freshman studio level may not enter in the spring semester; they must begin the Freshman Foundation program in the fall semester.

In order for a portfolio to be reviewed, a transfer student must have previously submitted a transfer application with essay, fee, college and high school transcripts, and letter(s) of recommendation to the Office of Admissions.

Notification of Transfer Applicants

Decisions will be mailed on a rolling basis, usually within four weeks after the application is completed. Initial acceptance becomes final only after the University is notified that current course work is successfully completed. Transfer applicants must also fulfill any specific requirements set by the Committee on Admissions.

For students who apply by February 1 and are accepted for the fall semester, a $300 deposit is due no later than May 1, or within two weeks of admission notification for those accepted after May 1. If accepted for spring semester, the deposit is due no later than January 1, or within two weeks of acceptance if notified after January 1.

After crediting $100 toward a matriculated student's first semester tuition charges, $200 is held throughout a student's enrollment. This is returned, less any unpaid University charges, after graduation or withdrawal (if done in accordance with established procedures). The $300 deposit is non-refundable to those who choose not to attend Alfred University.

Transfer of Credits

It is Alfred University policy to provide transfer students with the greatest possible recognition of their previous college work while maintaining the integrity of its own academic programs. See pg. 60 for the University's policy on transfer of credit.

International Student Policies and Procedures

Alfred University welcomes applications from qualified international students. The procedures listed below are necessarily strict in order to protect the University's visa-granting privileges. All international students (degree candidates and special students) must conform to the procedures and deadlines.

An international student wishing to matriculate must submit:

- A completed International Student Application Form by:
  Fall Semester - March 15
  Spring Semester - October 1
- The $50 (non-refundable) application fee.
- Original or certified copies of all secondary transcripts showing proof of graduation and a certified English translation of those records
- A letter of recommendation from your instructor, teacher, school counselor, or principal.
- Art and Design applicants are required to submit a portfolio (see the freshman or transfer section on portfolio submission).
- Proof of English Proficiency:
  Student's whose native language is not English must show evidence of English proficiency. Please submit your official results for the Test of English as a Foreign Language (TOEFL) or International English Language Test System (IELTS).

- Standardized Tests:
  All undergraduate international applicants are required to submit official scores from the SAT, ACT or TOEFL examinations. International Applicants must take either the SAT or ACT examinations in order to be considered for any merit based scholarships through the Office of Admissions.

Transfer Students:

Students who have completed any post-secondary studies must also submit:

- Original or certified copies of all Post-Secondary studies
- A certified English translation of those records
- Official evaluation of those classes by either the World Evaluation Services organization (www.wes.org) or Education Evaluation International (www.educei.com).

International students transferring to Alfred University from another U.S. college or university must verify that they are in status. Please have your current International Student Advisor complete an Alfred University Transfer Form and fax it to (607)871-2198.

- Required Essay for International Students
  Please provide a written statement that describes any personal experiences or circumstances that have affected your educational performance and/or personal development. Choose from the following essay topics:
  1) Write an article about yourself that would appear in your local newspaper. Be sure to include a headline.
  2) Briefly, why do you feel Alfred University is a good match for your academic and personal goals?
  3) Build a web-page on the Internet and give us the address. As part of the review process for your application, the Admissions Committee will explore your web site. This essay option must also include a paragraph (submitted with your application for admission) sharing your creative process as you designed the web page.

4) Media and technology have had a significant impact on today's society. How have your ideals, experiences or goals been shaped by these influences? Write this in light of your relationships with others such as parents, friends, etc.

Applicants to the School of Art and Design: Please respond to the following question in addition to OR in place of the above essay choices:

Over the past several years, how has your art transformed you and how have your artistic motivations and inspirations changed?

- Evidence of Financial Support

  The Department of Homeland Security requires Alfred University to verify that a student planning to study in the United States on an F-1 or J-1 visa provide financial evidence documenting sufficient funds for their student careers. To verify evidence of financial support, please submit the following:

  1) Alfred University Financial Statement with an official stamp from a notary or bank. This form must be completed by the student's sponsor.
  2) An official letter from your sponsor's bank indicating sufficient funds (translated into English) or an official award from your government or other sponsoring organization indicating the terms of support.

- Upon acceptance submit your $300 (non-refundable) enrollment deposit by:

  May 1 - Fall Semester
  November 15 - Spring Semester

After the enrollment deposit is received, Alfred University will prepare an I-20 to be sent to your mailing address listed on the application. An I-20 is required to apply for a student visa at the nearest U.S. Embassy or Consulate in your home country.

Special Programs

Opportunity Programs: Educational Opportunity Program (EOP); Higher Education Opportunity Program (HEOP)

Opportunity programs enable students whose economic and educational circumstances have placed limitations on their opportunities to further their education. To qualify for admission, students must be New York State residents, demonstrate the potential to succeed academically and socially, and demonstrate financial need as dictated by New York State guidelines.

Students accepted into the Opportunity Programs at Alfred University are required to participate in a Pre-Freshman Summer Program. This program is designed to assist students in gaining an understanding of the demands and challenges that come with college enrollment and introduce them to the University campus and its surrounding communities.

The Summer Program includes courses in reading, writing, mathematics, introduction to sociology, computer literacy, and student success strategies. Instruction is provided in these areas to enhance proficiency in the basic skills necessary to be successful in college.

Opportunity Programs provide support services, including a tutoring and regular academic and personal counseling to students throughout their enrollment at Alfred University.

Non-Degree (Special) Students

Individuals who wish to attend Alfred University as special students should contact the Student Service Center about course registration. Non-degree students need not apply to the Admissions Office. Since these students are seeking educational enrichment rather than a college degree, they are not eligible to receive financial aid.

Reserve Officers Training Corps (ROTC)

Alfred University students may enroll in the Army ROTC program in cooperation with the Seneca Battalion at St. Bonaventure University. This program leads to a commission as a second lieutenant in either the active Army, U.S. Army Reserve, or the U.S. Army National Guard.

The program is structured in two separate phases: a basic course for freshmen and sophomores and an advanced course for juniors and seniors. With the exception of ROTC scholarship recipients, students may enroll in the basic course without incurring any military obligation. Alfred University does not award credit toward degree completion for military science courses, but records them on the AU transcript.

Admission of Veterans and Service Personnel

Alfred University values service to our country; service personnel are encouraged to apply for admission by contacting the Office of Admissions for further information.

Readmission

A student whose study at Alfred University has been interrupted through voluntary or involuntary withdrawal from the University and who wishes to return must:

- Complete the Application for Readmission by August 1 for fall enrollment and December 1 for spring enrollment
- Submit a $50 non-refundable application fee
- Submit a brief statement indicating why you wish to return to AU

Please make arrangements for the following materials to be sent directly to the Admissions Office by August 1, for fall enrollment and December 1, for spring enrollment:

- Official transcripts of college work taken at other institutions since attending AU (if applicable); Art & Design students must submit an updated portfolio consisting of 15-20 examples of recent work
- A readmission form from the Office of Student Affairs (contact Student Affairs at 607.871.2132 to have the form sent to the Admissions Office on your behalf).
- A readmission clearance form from the Student Service Center (contact Student Service Center at 607.871.2123 to have the form sent to the Admissions Office on your behalf).
- (1) letter of recommendation from an employer (if employed since leaving AU) or from a faculty member (can be an AU faculty member, or a faculty member from an institution attended while not enrolled at AU)
- For HEOP/EOP students only, a readmission recommendation from the Director of Opportunity Programs

Please note: Before reaching a readmission decision, the Admissions Office will request a statement of support from the Dean of the College or School to which you are reapplying.

Additionally, if you are seeking financial aid, you will need to file the FAFSA (Free Application for Federal Student Aid) and the Alfred University Financial Aid Application by the deadlines listed above. The AU aid application can be found online at: http://www.alfred.edu/finaid/.

Involuntary Withdrawal of Acceptance

Alfred University reserves the right to withdraw acceptance of any prospective student prior to matriculation who engages in or has engaged in any activities, social or financial, that are considered to be violations of accepted standards of conduct. This includes, but is not limited to, any penal laws.

Student Life

The Division of Student Affairs helps students meet their personal and academic goals within the caring residential environment that is Alfred University. Staff members and programs encourage students to develop, explore and express themselves as individuals and as community members.

Outside the classroom, more than 80 student clubs and organizations offer a multitude of exciting activities for every interest. Concerts, theatre and dance events, comedy clubs and coffeehouses provide quality nightlife. Intercollegiate athletics involve one out of every five students; many students also participate in intramurals.

Our professional staff offers a full range of student services and learning opportunities – from career planning and counseling to health care, residence life and leadership education. As part of the transition into their first year at Alfred University, incoming students take part in a required orientation. They meet fellow students and faculty members and become acquainted with the historic campus and its facilities.

Extra-Curricular Activities

More than seventy-five student-led organizations exist at Alfred University. Organizations offer students a chance to pursue special interests or discover a new one. They also assist in the development of leadership skills, goal setting, and budget management. Many of these organizations are mentioned in this section, but others exist and new groups are always being formed. Contact the Center for Student Involvement at (607) 871-2175 for a complete list of all student organizations.

Student Government

Participation in co-curricular activities benefits Alfred students in many ways. There is no better training for many professions than experience in student government. The present Student Senate has been in existence since 1976 and has been instrumental in initiating changes and improvements.

The Senate meets weekly. Each senator is elected by and represents a particular constituency – i.e., residence hall, campus organizations, or off-campus residents. The Senate president and vice-president are chosen by a campus-wide election.

Among the Senate's major functions are raising and discussing issues of student concern, proposing constructive changes to promote student well-being, and distributing funds to other campus organizations. The Senate elects or recommends student representatives for University and college committees.

Volunteer Opportunities

The Volunteer Service Center exists on campus to connect all students with opportunities to make a difference within our community. Contact the Office of Student Activities to get connected. Several of our organizations have community service as their primary goal.

- Student Volunteers for Community Action – coordinates adopt-a-youth and adopt-a-grandparent programs
- Alpha Phi Omega – The oldest national co-ed service fraternity in the country
- Habitat for Humanity – Sponsors annual home-building trips to Florida
- Rescue Squad – Students volunteering to provide on-site first aid to fellow students

Entertainment Opportunities

Whether producing a major concert with national touring performing groups or displaying your own personal talent in front of a packed theater, there is a diverse range of ways to entertain or be entertained at Alfred.

- Student Activities Board – the main provider of entertainment including comedians, bands, and solo performers
- Friday Night Live/Pirate Theater/ – Alfred's comedy troupes with very different styles and attitude
- Division of Performing Arts – Opportunities abound for co-curricular involvement in Orchestral, Vocal and Instrumental Music groups, Dance ensembles and Theatrical productions.

Outdoor/Environment Opportunities

- Forest People – Alfred's outdoor recreational club travels far and near for activities including repelling, rafting, hiking, and more.

Media Organizations

- *Fiat Lux* – bi-weekly student newspaper
- AUTV – Student television station broadcasting announcements and occasional student-produced shows
- WALF – 24-hour campus radio station with an eclectic mix of music styles
- Kanakadea yearbook – documenting the year's events and containing portraits of graduating students

Alcohol and Other Drug Education

The mission of the Alcohol and Other Drug Education Program is to provide information, activities, services and support to the students, faculty, staff, and administration of Alfred University, to promote substance abuse resistance and to foster healthy lifestyle choices. This education and prevention program features:

- Fun, alcohol-free social activities
- Special events during Alcohol Awareness Week, Spring Break, Holidays, Orientation, and Graduation
- AWARE, BACCHUS, GAMMA and SAM Peer Education Groups
- Social Norms Campaigns
- Presentations in residence halls and classrooms
- Formal classes on substance abuse
- A resource center for personal and professional use
- A university-wide advisory committee
- Data collection for AOD use
- Policy review and recommendations
- Referrals for students abusing alcohol and other drugs

Athletics

Athletic programs are an integral part of campus life. Students' individual athletic aspirations are satisfied by a wide-ranging program of intercollegiate competition, intramural sports, and recreational activities.

Indoor Facilities

McLane Physical Education Center is the hub of athletic activities. It has two regulation size basketball courts, a six lane swimming pool, a complete fitness center (with over 60 pieces of equipment designed to promote cardiovascular fitness as well as strength training equipment, including 4 recumbent bikes, 10 treadmills, 4 ellipticals, 30 Cybex Eagle and 15 strength training stations, and free weights), two racquetball and squash courts, four badminton and volleyball courts, and a comprehensive athletic training room. Supplementing these facilities are an indoor track and a basketball court in the adjacent Davis Gym.

Outdoor Facilities

Outdoor facilities include Merrill Field (home of the Saxon football, lacrosse, and soccer teams) with a multipurpose artificial surface accommodating intercollegiate sports, intramural activities and recreation; six tennis courts; several basketball courts; a portable volleyball and basketball court and a pavilion. All are located near the residence halls. The Daggett Equestrian Center, just minutes from campus, opened in Fall 2005 featuring indoor and outdoor arenas, 52 stalls, and classrooms. Downhill and cross country skiing areas are located a short distance from campus.

Intercollegiate Athletics

Alfred University sponsors intercollegiate athletics for women in basketball, soccer, cross country, swimming, tennis, track, lacrosse, softball and volleyball. Men's intercollegiate sports include football, cross country, track, basketball, soccer, lacrosse, swimming and diving, and tennis. The equestrian, golf, and ski teams are coeducational. Alfred is a member of the National Collegiate Athletic Association, the Eastern College Athletic Conference, the Empire Eight Conference, and the New York State Women's Collegiate Athletic Association. The intercollegiate programs operate under the rules and regulations of the NCAA.

Recreation and Leisure Sports

The philosophy of the recreational program is to contribute to the physical, social and emotional well being of the University community by offering a diverse program of leisure time activities. All indoor and outdoor facilities are available for the intramural program and for general student use. With a focus on participation in competitive physical play, the program is open to the entire University community (undergraduate and graduate students, faculty, and staff).

The Recreation and Leisure Sports department offers sports activities in sixteen areas, eight of which are coeducational. Offerings include tennis, flag football, indoor soccer, box lacrosse, basketball, bowling, badminton, racquetball, table tennis, volleyball, team handball, handball, inner-tube water polo, ultimate frisbee and softball.

University community members take part in exercise and recreational activities. McLane Center is open daily for swimming, squash, racquetball, handball or fitness training.

Campus Center

The 60,000 square foot Arthur and Lea Powell Campus Center is one of the finest community-gathering facilities in the country. It features a cafeteria-dining room with panoramic hillside views, a forum/movie theatre, an "open air" food court, a cyber café, a night club, student organization offices, a multi-cultural center, a radio

station, television station, meeting rooms, a formal Alumni Lounge, the University bookstore, mail room and TV lounge and student lounge

Robert R. McComsey Career Development Center
at the Allen Steinheim Museum

The CDC educates Alfred University students to develop life-long career skills utilizing centralized, professional services including career counseling/advising, experiential education, on-campus recruiting, web-based services and special events/workshops. The CDC offers the following services:

- Career counseling, exploration and advising, including career assessment
- Saxon JobLink, our web-based system for job / internship, and resume posting, and interview scheduling
- Computer lab with internet access and a laser printer for student use
- Internships, co-ops and summer jobs in your field of study
- An annual fall Engineering Career Fair, spring Internship & Summer Job Fair and an annual fall Graduate School Fair
- Employer-in-Residence program: allows students to connect with successful alumni and representatives from a variety of careers
- Online computer guidance programs, Choices and Sigi3, designed to identify career opportunities, graduate schools and scholarship programs
- On-campus recruiting, interviewing and resume referral
- Frederick W. Gibbs Career Resource Library which houses career information, job and internship postings, credential file service, and graduate school information
- Wireless internet access

Counseling and Wellness Center

The Counseling and Wellness Center (CWC) is located in the north wing of the Crandall Center for Counseling and Health Services, near the Saxon Inn. A component of the Student Affairs Division, the CWC provides personal counseling, outreach, programming, and educational services to support and promote the success and wellness of university students.

Counseling

Individual, couple, and group therapy sessions are provided by nationally certified and licensed staff. These are completely confidential in accordance with standards set by the American Counseling Association. The counseling staff members provide crisis response and are on-call for emergencies when AU is in session. The CWC offers all services at no cost to currently enrolled undergraduate and graduate students. Appointments can be arranged by calling 607.871.2300 or by stopping in at the office between 8:30 a.m. and 4:30 p.m. on M – F.

Wellness Education

The mission of the Wellness Education program is to promote lifetime healthy lifestyle choices through education, activities, and services to the campus community. Services for students include

- Individual wellness education sessions
- Individual alcohol and drug education sessions
- Peer Leadership in Health and Wellness Education class (2 credits)
- Certification program in peer education for students

- Peer education opportunities as members of the Health and Wellness Peer Educators group or the Student Athlete Mentors group
- Student Internship opportunities
- Presentations for classrooms and Residence Halls
- Promotion of healthy lifestyle choices through events and social norm campaigns
- Referrals for students seeking assessment or evaluation for alcohol or substance abuse
- Data collection for needs assessment and program evaluation
- Campus policy review and recommendations

For more information, or to make an appointment for a Wellness Education session, contact the CWC at 607.871.2300.

Health and Wellness Services

Counseling Services

Located in the north wing of the AU Wellness Center building, near the Saxon Inn, Counseling Services, a component of the Wellness Center and a part of the Student Affairs Division, provides a comprehensive range of counseling, consultation, and educational programs to promote the personal development and success of students. Services are provided by licensed and professional mental health practitioners at no charge to AU students. All services are completely confidential in accordance with standards set by the American Counseling Association. Appointments can be arranged by calling 607.871.2300 or by stopping by the office at 19 Park Street.

Health Services

Health Services is located in the south wing of the AU Wellness Center building at 19 Park Street. A team of practitioners provides care for non-emergency problems and preventive health concerns. Services include consultation and treatment for acute problems, laboratory work and specimen collection, gynecological exams, and referral for specialist and hospital services. Emergency care is available after hours through the AU Rescue Squad, the village ambulance service, and local hospitals.

There is no charge to meet with a provider at Health Services. Nominal charges are made for lab work, injections, and some equipment or medications. Prescriptions for medications can be filled in Alfred at the Alfred Pharmacy, or phoned in to students' preferred locations. Appointments for psychiatric consultation are available for a small fee. Other types of specialist services can be arranged through referrals to the local hospitals in Hornell and Wellsville and practitioners in the area. Students maintain the right to choose a health care provider or hospital and must assume all financial obligations for off-campus health care.

Immunization Requirements

Students born after December 31, 1956, must provide written documentation of immunity to measles, mumps, and rubella, as required by New York State Public Health Law 2165. A hold is placed on new students' registration activities until immunization records are received and cleared through Health Services. Students not in compliance will be withdrawn from AU and will not be able to attend classes. Questions regarding this requirement or any other aspects of student Health Services may be directed to the staff at Health Services 607.871.2400.

Health Insurance

Alfred University requires students to show proof of health insurance. Students are billed for the University's student accident and illness insurance plan that helps pay for hospital and specialist medical and/or surgical care.

Any student (with the exception of most international students) may submit a waiver to remove that charge from their bill by providing proof of other coverage. Further information concerning student insurance through Alfred University is available by contacting the Student Affairs office or going online to www.academichealthplans.com/alfred.

Housing

Alfred University is a residential university. We believe that residence hall living is a key component of a student-centered educational experience in which academic learning is integrated with student development. Each student is personally accountable for maintaining a safe and secure environment in his or her residence hall that promotes a healthy standard of community living.

For these reasons, provisions are made to house all students on campus throughout their undergraduate years. Students are required to live on campus for six consecutive semesters. Once this residency requirement has been met, students are able to apply to live off-campus. To obtain approval to live off-campus, students must participate in the off-campus housing forum, complete an off-campus housing application, and receive permission to move off campus from the Dean of Students. Some students may be eligible or considered for an exemption if they are: married or a single parent, 23 years of age or older, commuting from their parent's primary home within 60 miles of campus, participating in a co-op or study abroad program, or in need of a medical exemption. For more information, contact the Residence Life office at 607-871-2186.

Meal Plans

All students who live in residence halls are required to participate in a meal plan, except for seniors or residents of Ann’s House, International House, Hillel, Modern Language House, Honors House, Environmental House, and the Ford Street apartment complex. First-year students have a choice of three meal plans; 300, 250, or 200 meals per semester; Sophomores and Juniors have an additional option of 150 meals per semester. Five percent of these meals can be used as a guest meal to use when family and friends come to visit. All plans come with $125 in "Dining Dollars" which can be used at any dining location and select vending machines. Meal plans are for individual student use only and are non-transferable.

Both Ade and Powell dining halls offer multiple entrees with unlimited seconds and vegetarian choices at every meal. Cyber Fresh Café and MidKnight Express offer one combo meal in exchange for one meal swipe per night after 8:30pm. For more information, please see the Dining Services website: alfredavifoodewb.com or contact Dining Services at 607-871-2247.

Fiat Bux

Students can also purchase Fiat Bux, which are similar to dining dollars with more buying power. In addition to dining locations and vending, Fiat Bux can be used to make purchases in the Clay Store, the Dingbat (Design) Store, and for copies in Herrick and Scholes Libraries. To purchase Fiat Bux just bring your University ID Card to Cyber Fresh Café in the Powell Campus Center during regular business hours. Cash, checks and credit cards (MC, Visa, and Discover) are accepted.

Housing Options

With a broad spectrum of architectural and environmental styles available, choices range from traditional residence halls to suites and apartments. Single rooms are available to students on a limited basis. Each living area selects its own quiet and courtesy hours as an extension of the all-campus quiet hours after the semester begins. Residence halls are coed by floor; i.e., a floor of men, a floor of women; or coed by suite – i.e., one suite of men may be located next to a suite of women; or coed by alternating rooms within corridor-style designated buildings for upper class students. In addition, the department offers Common Interest Housing (CIH) for returning students. Students interested in CIH may apply for this option in the Spring Semester for the following Fall. Students applying for CIH must be free of any probation through the judicial system, have a common interest that is compatible with the mission of the University and the Office of Residence Life, and follow all rules and regulations. All residence halls are non-smoking.

Housing Staff

Residence hall staff live in each building and on each floor or section. Resident Directors (RDs) are full-time graduate students. The RD staff is responsible for the entire operation of the buildings. Each floor has a Resident Assistant (RA), an undergraduate student who has proven him/herself able to work well with people and their concerns.

The Director of Residence Life, Associate Director, and Assistant Directors are also available to help students acclimate to their new social and educational environment. The Office of Residence Life, located in Bartlett Hall, is an available resource for student housing concerns. Residence hall living includes taking part in activities planned to promote community and learning.

Hazing Policy

Alfred University believes that any group or organization composed of students, faculty, staff and/or visitors has the responsibility to create an environment within which all activities are pursued in a sound and productive manner. Any group or organization which includes hazing as part of its activities creates a risk of hazardous conditions.

Alfred University defines hazing as “any activity or action which subtly, flagrantly, recklessly, or deliberately demeans, embarrasses, threatens, invites ridicule or draws inappropriate or negative attention to a member, affiliate, or group, and/or an attitude which implies one member/affiliate is superior to another or that membership in the group must be earned through personal services or meaningless activities. Furthermore, this definition includes any action which results in the impairment of academic performance or causes failure to properly fulfill obligations to University-sponsored groups and organizations.”

Alfred University unconditionally opposes any form of hazing. Any violation of this policy should be reported immediately to the Office of the Dean of Students. Any member or affiliate who is in violation of this policy is subject to suspension, expulsion, or other judicial proceeding, or, if the violator is a group or organization, recision of affiliation with Alfred University.

Furthermore, New York State defines hazing as follows: “A person is guilty of hazing in the first degree when, in the course of another person’s initiation into or affiliation with any organization, he intentionally or recklessly engages in conduct which creates a substantial risk of physical injury to such other person or a third person and thereby causes such injury.” (Penal Law S120.16) Hazing in the second degree (a violation) incorporates a nearly identical definition except that no actual injury to any person needs to be proven. (Penal Law, S120.17)

Cultural Events and Films

Several campus organizations sponsor appearances by visiting artists, speakers and groups. The Student Activities Board (SAB), the Residence Hall Council (RHC), and individual academic divisions invite lecturers and performing and visual artists to campus for residencies and one night appearances. Alfred University student groups sponsor a number of popular entertainers in the Coffeehouse and Comedy Club, as well as rock concerts by well-known performers. Movies – current and classic – run on Fridays and Sundays. The Fosdick-Nelson gallery exhibits sculpture, glass, ceramics, paintings, lithographs and photography. Student theater and dance productions, as well as performances by musical ensembles, occur at frequent intervals throughout the year.

Theatre, Music and Dance Organizations

TheTheatre Department produces three main-stage faculty-directed plays and numerous student-directed plays, either full-length or one-acts. The Alfredian Dramatists is an active student theatre group which works closely with the theatre faculty, giving suggestions for play titles for productions and raising funds for attending events, regional plays and the American College Theatre Festival.

The Music program features the University Chorus, AU Chamber Singers, Jazz Ensemble, Concert Band, and Symphony Orchestra. Smaller ensembles are organized at student interest and may include string quartets, brass ensembles, and select vocal groups. Students also may take private voice and instrumental lessons including lessons on carillon.

The Dance Department provides students from all disciplines an opportunity to supplement their academic pursuits with dance. Performance and choreographic opportunities are available to all students throughout the year through the formal and informal performance events on and off campus. In addition to the very active dance minor, Alfred University offers a variety of dynamic dance clubs: Hip Hop, Middle Eastern Dance Organization, Dance Team, Alfred to Asia, Folk Dance, and Swing Dance Club

Judicial System

University men and women are expected to conform to high standards of adult behavior, both on and off campus. The University Student Life Policies exist to serve as a guide for each student and to ensure the proper atmosphere necessary for the academic and social life of each student. Judicial action will be taken against students whose conduct adversely affects the University community and/or the pursuit of its objectives, or violates state, local or federal law.

The Alfred University Student Judicial System is designed to hold students accountable for their behavior, to protect the University community and property, and to protect the rights of the members of that community to function in an environment conducive to academic pursuits. It is designed to confront individuals with the inappropriateness of their actions in a constructive and educational manner that will foster an understanding of the impact their behavior has had on individuals and the community. (A detailed statement on the judicial system can be found on the Alfred University student web portal at http://my.alfred.edu under "Judicial System."

Multiculturalism

All of the clubs under the ALANA (African-, Latino-, Asian-, Native-American) umbrella strive to both educate the campus and provide social support for their members.

- Poder Latino – Alfred's Latino support club sponsors several events including auctions for charity and talent shows for their members
- Umoja – AU's Black Student Union is best known for its Charity Basketball Game, and Slam Poetry events
- Pacific Rim – Support and social events for Asian students
- Caribbean Student Association– Only two years old, but already sponsors incredible events such as an annual Fashion Show and a Beach Party
- Alfred Steppas – High energy performance created by rhythms of foot-stomping, hand-clapping and much, much more
- Spectrum – Support and social programming for our gay, lesbian, and bi-sexual community; supporters welcome
- SAFE - Students Acting for Equality provides a safe outlet to address issues and make changes on campus

Major Weekends and Events

- Homecoming Weekend – Highlighted by a Saxon football game and great entertainment.
- Hot Dog Day – Now a well-established tradition, Hot Dog Day is a combination of street carnival and springfest, highlighted by an ice cream social, chicken barbecue, craft sale, band party, parade, and many other amusements and festivities, all centering on the consumption of thousands of hot dogs. The funds raised by this community event are turned over to area charities.
- Spring Family Weekend – Highlighted by the Alfred Honors Convocation, which recognizes academic excellence.
- The Alfie Awards – Established in 1994, this year-end award ceremony spoofs the Oscar Awards with red carpets, limousines, and long acceptance speeches. The very real awards pay tribute to those who make Alfred's extracurricular life so entertaining.
- Large Act Concert – SAB's annual gymnasium concert has included Adam Sandler, Alanis Morissette, Bare Naked Ladies, Smashmouth, Vanessa Carlton. Black Eyed Peas, and Gym Class Heroes.

Religious Life

The University is non-sectarian. In accordance with its century-and-a-half tradition, it extends a welcome to people of diverse ethnic and religious backgrounds. The Alfred community has ample opportunities for students to find a religious center. The Melvin H. Bernstein Hillel House and several Protestant campus fellowships offer on campus programming and services. St. Jude's Catholic Campus Center is located within walking distance of campus and provides a wide variety of activities for Catholic students. Protestant students will receive a warm welcome at any of the numerous churches and religious groups in the Alfred area, including within five minutes of the campus Methodist, Pentecostal, Union University, Seventh Day Baptist, and Society of Friends. Muslim students can arrange with Muslim faculty for prayer services during Holy seasons, or can attend regular services within an hour's distance of Alfred.

Services for Students with Disabilities

Special Academic Services provides support services, consultation, and advocacy for students with learning, physical, and/or psychological disabilities. Services for persons with disabilities shall complement and support, but not duplicate, the University's regular existing services and programs. The University strives to provide equitable and efficient services to all students.

Assurance of equal educational opportunities rests upon legal foundations established by federal law, specifically Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. By federal law, a person with a disability is a person who:
Has a physical or mental impairment;
Has a record of such impairment; or
Is regarded as having such an impairment that it substantially limits one or more major life activities such as self-care, walking, seeing, hearing, speaking, breathing, or learning.

In order to determine whether an individual is entitled to protections and services under the law, the Special Academic Services office requires documentation that verifies that the individual has a disability. Recent documentation provided by a properly credentialed professional should include a diagnostic statement identifying the disability, the diagnostic methodology used, as well as a description of the current functional limitations and how they can be accommodated. This allows the Special Academic Services Office to appropriately determine eligibility and reasonable accommodations.

Alfred University is dedicated to providing full access to all of its facilities, student programs, activities, and services, and reasonable accommodations in the instructional process, in compliance with these guidelines. Services that the University provides are designed to maximize independence and encourage the integration of students with disabilities into all areas of college life.

Website: http://www.alfred.edu/academics/disabled.cfm
Address: Special Academic Services
Crandall Hall
Alfred University
Saxon Drive
Alfred NY 14802
Phone: 607.871.2148
Email: SAS@alfred.edu

Alumni Association

The Alfred University Alumni Association dates back to 1884 when a group of enthusiastic former students established an organization to "create and maintain activities for the support and development of the University." The Alumni Association is led by the Alumni Council whose members are selected from active alumni volunteers. In 2010, the Council updated the Alumni Association's Constitution and its mission: "The Alfred University Alumni Association actively supports and facilitates the strongest possible sense of community among Alfred University's administration, faculty, student body and alumni." The Alumni Council operates under the direction of an elected President and with the support of the University's Director of Alumni Engagement.

Individuals who have completed two full-time semesters in good academic standing are automatically members of the association, which has grown to more than 30,000 members. Alumni support has always been an essential part of Alfred University's progress and success.

Alumni are invited to attend regional events, as well as to return to campus for special events, particularly Homecoming and Reunion Weekends. The Alfred Magazine, emailed to alumni, carries information about these programs, along with campus news, class notes, and alumni profiles. The University also communicates electronically with its alumni through e-news.

The Alfred website, [www.alfred.edu/alumni], offers a vital link for communication among classmates and between the University and alumni. Alumni may register on-line for regional and campus events. The On-Line Alfred Community enhances opportunities to stay in touch by offering a permanent email address.

The Office of Alumni Relations is located on campus in the University Welcome Center at the Fasano House. Alumni and friends are encouraged to stop in when visiting the Alfred area. Alumni may also stay in touch by calling (607) 871-2144 or by e-mailing: alumni@alfred.edu.

Parents Association

The Parents Association exists to promote and enhance opportunities for parents of Alfred University students to communicate, participate, and establish a sense of community with one another and with the faculty, staff and administrators of Alfred University. All parents of current students are automatically members of the Parents Association. A current parent serves as President of the Association. There are no dues, and all parents are welcome to participate in Association meetings.

As part of the Alfred University Parents Association, a small group of volunteer parents serves as the Parents Advisory Board. Their purpose is to provide feedback/suggestions related to AU Parents Programs and help determine future direction; to serve as a resource to prospective and current AU parents in terms of student academic life and life within the University community; to provide valuable input to the AU administration when a parents "point of view" is needed; and to assist the Director of Parents Programs and the President of the Parents Association as needed in project planning and development.

The University organizes two weekends a year for parents, one in the fall and one in the spring. These Family Weekends provide opportunities to visit with sons and daughters and to take part in campus activities.

Campus Safety Report

The Campus Safety report is available to all members of the campus community and to the public. The report contains University policies related to campus safety including: University Office of Public Safety policies and procedures, policies concerning alcohol and drug use, crime awareness and prevention, the reporting of crimes, and sexual misconduct. The report also includes a three-year summary of statistics of crimes that are reported to have occurred on University property, in off-campus buildings owned or controlled by the University, and on public property within the Village of Alfred. A copy of this report can be obtained from the Student Affairs Office, the Admissions Office, the Human Resources Offices, or by accessing the University web site.

Consumer Complaint Procedure

For all types of complaints concerning colleges and universities in New York State, the first course of action must be to try to resolve the complaint directly with the administration of the college or university involved. The Office of College and University Evaluation will not review a complaint until all grievance procedures at the institution have been followed and all avenues of appeal exhausted and documentation provided that such procedures have been exhausted. Please note: Every New York State college and university is required to establish, publish, and enforce explicit policies related to redress of grievances.

Please do not send a complaint to the Office of College and University Evaluation until you have read all of the information below. This will assure that you are sending your complaint to the appropriate agency/office. The Office of College and University Evaluation handles only those complaints that concern educational programs or practices of degree-granting institutions subject to the Regulations of the Commissioner of Education, with the exceptions noted below.

- The Office does not handle anonymous complaints.
- A complaint involving discrimination against enrolled students on the part of an institution or faculty, or involving sexual harassment, should be filed with the U.S. Office for Civil Rights, 75 Park Place, New York, NY 10007. Complaints about two-year colleges concerning sexual harassment/discrimination based on race, ethnicity, gender and disabilities may also be reported to the Office of Equity and Access, VATEA Program, 10th Floor, Education Building Addition, Hawk Street, Albany, NY 12234.

- A complaint of consumer fraud on the part of the institution should be directed to the Office of the New York State Attorney General, Justice Building, Empire State Plaza, Albany, NY 12223.
- The Office of College and University Evaluation does not intervene in matters concerning an individual's grades or examination results, as these are the prerogative of the college's faculty.
- The Office does not handle complaints concerning actions that occurred more than five years ago.
- The Office does not intervene in matters that are or have been in litigation.
- For a complaint about state student financial aid matters, contact the Higher Education Services Corporation (HESC) Customer Communications Center at 1-888-NYS-HESC.
- Complainants should be aware that the Office of College and University Evaluation does not conduct a judicial investigation and has no legal authority to require a college or university to comply with a complainant's request.

Complaints not excluded by any of the issues above should be sent to:

New York State Education Department
Office of College and University Evaluation
Education Building
5 North Mezzanine
89 Washington Avenue
Albany, New York 12234

A complaint involving consumer fraud on the part of the institution should be directed to the Office of the New York State Attorney General, Justice Building, Empire State Plaza, Albany, NY 12223.

Academics

University Academic Program

The University baccalaureate program is designed to be accomplished in eight semesters of 15 weeks each. The typical credit hour load of fulltime students at Alfred University is 16-18 credit hours of coursework per semester.

Student Classification

Class Standing (based on semester credit hours earned)

Freshman	Sophomore	Junior	Senior
0-29	30-59	60-89	90+

Enrollment Status

Full-time student: Currently registered for 12 or more semester credit hours.
Part-time student: Currently registered for fewer than 12 semester credit hours.

Degree Requirements

In order to satisfy the requirements for a Bachelors Degree a student must:

- Complete all course requirements, including those required for the major, general education, and the minimum number of credits for the degree sought as set forth by the faculty of the college or school in which the student is enrolled, and as described under "major requirements" in this catalog.

  Note: A three semester hour transfer course may be used to satisfy a four semester hour AU requirement in a major or in general education. However, the minimum number of total semester credit hours for the degree must still be earned to complete degree requirements.
- Earn a cumulative grade point average (GPA) of at least 2.00.
- Satisfy the Global Perspective Requirement

  This requirement may be satisfied by:
  1. Taking an approved "GP" course (see pg. 81)
  2. Participating in an international co-op program or internship
  3. Studying abroad
  4. Going on a course-based faculty-led international study trip
- Satisfy the Physical Education requirement.

  This requirement may be satisfied by successfully completing two activities in any one of the items listed below, or in a combination of items:
  1. A physical education activity course (PHED 100-level or those specific Dance and Equestrian courses that indicate they apply to "PE Requirement")
  2. Participation in a varsity sport for an entire season (participation in the same varsity sport more than once counts as only one of the two required activities)
  3. A lifetime sports proficiency examination (requires both written and physical tests; current fee: $225.00)

  Students in the College of Liberal Arts and Sciences may count up to eight semester credit hours of physical education activity courses (PHED 100-level) toward the 124 credit hours needed for the degree. For students in the College of Business, those PHED/EQUS credits earned to satisfy the PE requirement do not count toward total credits needed for the degree. For students in the Inamori School of Engineering and the School of Art and Design, no credits earned in 100-level PHED or EQUS courses count toward the minimum number needed for the degree.

  Note**: The PE Requirement is waived for those 25 years of age or older *as of the date of matriculation*. (The date of matriculation is the first day of classes in the term admitted to an AU degree program.)**

- Request legal conferral of degree (apply to graduate) and satisfy financial obligations to the University. Written application for graduation must be made to the Registrar at least 60 days before the expected degree conferral date.
- Earn at least 45 semester credit hours at Alfred University.
- Be in residence at Alfred University at least during the final 30 credit hours earned toward the degree (see policy on Transfer Credit, p. 60).

Double Major/Double Degrees
Students earn one baccalaureate degree with two majors ("double major") if the majors are offered in the same College or School (except for BS and BFA in the School of Art and Design; see below). Students must complete the requirements for both majors and all other baccalaureate degree requirements that were in effect when the student was admitted (or last readmitted) to undergraduate study at AU. This includes all University, College/School, and major requirements. There is no total credit hour requirement for a double major beyond the minimum required for the degree program when only one major is completed. One diploma is presented at graduation. Note: A student may not add a second or subsequent major to a degree that has already been awarded.

Students may earn two baccalaureate degrees to be awarded simultaneously ("double degrees") when the two degree programs are offered within the School of Art and Design (B.S. and B.F.A.) or when the two programs are offered by two distinct AU Colleges/Schools. (e.g.: B.A. in the College of Liberal Arts and Sciences and B.F.A. in the School of Art and Design; B.S. degrees offered in the College of Business and in the Inamori School of Engineering.)

To receive two degrees simultaneously, students must complete all University, College/School, and major requirements in effect for both programs at the time the student was admitted (or last readmitted) to undergraduate study at AU and earn a minimum of 148 semester credit hours. Two diplomas are presented at graduation.

Bachelor of Arts Degree for Those Holding a Professional School Degree
Any person who has completed three or more years at Alfred University, who holds no undergraduate degree, and who has subsequently earned the M.D., D.D.S., D.V.M., J.D., or comparable professional degree from an accredited college or university, will be granted, upon request, an Alfred University Bachelor of Arts degree. Upon receipt at AU of an official transcript from the school that conferred the professional degree and of an Application to Graduate, the B.A. degree will be conferred at the next opportunity (August, December, or May).

Degrees Awarded Posthumously
Alfred University may confer posthumous baccalaureate and graduate degrees upon students who are deceased prior to completion of all degree requirements of the program being pursued.

To be eligible for consideration, the student must have been nearing completion of coursework required for the degree and must have been in good academic standing with a grade point average sufficient to have earned the degree. Recommendation for award of the degree must be made by the faculty in the student's major area, and approved by the Chair or Director, the College or School Dean, and the Provost. Final approval for awarding of posthumous degrees shall rest with the Board of Trustees, which will act upon the recommendation of the President of Alfred University.

Credits, Grades and Grade Point Average (GPA)

The following grade designations are used at the undergraduate level:

Grade	Grade Points per Semester Hour	Meaning
A	4.00	Exceptional
A-	3.67	
B+	3.33	
B	3.00	Good
B-	2.67	
C+	2.33	
C	2.00	Acceptable
C-	1.67	
D+	1.33	
D	1.00	Poor
F	0.00	Failure
I	0.00	Incomplete
IP	0.00	In Progress (at an interim point in a course that extends, *by design* over multiple terms)
P	0.00	Pass
W	0.00	Withdrawn
AU	0.00	Audit (non-credit)

The grade of I indicates incomplete course work due to circumstances beyond the student's control. The Registrar shall change the grade of I to F if the incomplete is not removed within the succeeding semester, unless the instructor grants an extension of the time period for completing the unfinished work.

Calculating the Grade Point Average (GPA)

Only credits attempted at Alfred University (and certain cooperative programs at other U.S. schools) which have received final grades of A through F shall be used to calculate GPA. (The grades I, IP, P, W, and AU are *not* used in calculation of GPA.) The term GPA is calculated by dividing the total grade points (or "quality points") earned by the "GPA Hours" for a given term. The cumulative (or "overall") grade point average is calculated by dividing total grade points earned to date by total GPA hours to date. The credit hours for courses passed (those with grades of P or letter grades of D or above) will be counted as credit earned. Grades of I, IP, W, F and AU (audit) do not earn credit.

Pass/Fail Grading

1. Undergraduate students may designate up to four semester hours each semester to be taken for a grade of P or F provided they have not been previously enrolled in the course and the course is not a required course in their major program. Grades of D or better will be recorded as P. Advisor approval is required. The periods for selecting and canceling the Pass/Fail option are designated in the Academic Calendar. These additional limitations apply:
   - Students in the College of Liberal Arts & Sciences may not take courses that fulfill General Education requirements on a Pass/Fail basis.
   - Students in the College of Business may elect the Pass/Fail option for courses which are part of the distribution requirements, but courses submitted in satisfaction of a major, including at least 48 hours required for the Business Core and Business Electives, and all courses specifically required by name and number must be taken for a letter grade.
   - Students in the Inamori School of Engineering may not use the Pass-Fail grading system for any course presented for graduation credits, except in the following instances: Co-op, off-campus study, and ENGR 160/360 Seminar.

2. Certain courses may be designated by the college curriculum committees to be graded only Pass or Fail.

Auditing of Courses
A student may elect to take a course on a non-credit or "audit" basis. The student may also change from credit to audit or vice-versa until the last day to withdraw from the course as designated in the Academic Calendar. An auditor receives a grade of "AU" in the course, and this is recorded on the transcript. Courses audited are charged at 50% of the normal tuition rate.

Any student registering as an auditor in a class must consult the instructor to determine the level of participation the instructor expects of an auditor. If an auditing student fails to meet the expected level of participation, the instructor will notify the Registrar when final grades are submitted, and the Registrar will cancel the student's audit registration in that class.

Repeating of Courses
When a course is repeated, the course credits shall be used only once and the grade points and credits corresponding to the most recent grade earned shall be used in calculating the cumulative GPA. While the original grade is no longer used in the GPA, it remains a part of the record and it appears on the student's transcript. If a course cannot be repeated because it is no longer offered, a course with similar content may, with permission of the Dean, be taken in place of the original and recorded as a repeat.

Grade Changes/Grade Appeals
A grade may be changed by the instructor of a course to convert an Incomplete ("I") or In Progress ("IP") to a final grade or to correct an error. The Division/Program Chair and the appropriate Dean must approve all grade changes except for completion of work in courses graded I or IP.

Students have one year from the date a final grade is issued to petition for a change of grade. A student who believes a final grade is not correct should first meet with the instructor. If the matter is not resolved, the student should meet with the division/program chair in the academic area offering the course. If there is no resolution, the student should arrange a meeting with the Dean, or the Dean's designee, of the college or school offering the course. If there is still no resolution, the student may present the case to the Ombuds Officer for review and a final decision.

Transfer of Credit
Undergraduate students must complete at least 45 credit hours in residence at Alfred University. "In residence" means courses offered by Alfred University on campus, at an extension site, or through distance education. Students must complete their final 30 semester credit hours in residence. Students who have met the 45 hour residency requirement and who are approved for study abroad in the second to last semester before graduation are exempt from the requirement to be in residence for the final 30 credit hours, but must be in residence in the final semester. Students who have met the 45 credit hour residency requirement and who need no more than eight semester credit hours to complete degree requirements may petition the Dean for permission to complete the remaining requirements elsewhere.

For credits to be transferred toward the AU degree, final, official transcripts from previous institutions must be received by the Office of the Registrar within one year of admission to AU as a degree-seeking student or within one year of an approved study away program.

When applying for admission to Alfred University, send official transcripts to:

Office of Admissions
Alfred University
One Saxon Drive, Alumni Hall
Alfred, NY 14802

Once admitted to AU, send official transcripts and any other academic records to:

Registrar
Alfred University
One Saxon Drive
Alfred, NY 14802

Transferable Credit

Alfred University accepts transfer credits from those U.S. colleges and universities that are accredited by one of the regional accrediting bodies, such as the Middle States Association of Colleges and Schools. Credits earned at U.S. institutions that are accredited instead by one of the recognized national accrediting organizations, such as the Accrediting Council for Independent Colleges and Schools, will be considered for transfer of credit on a case-by-case basis. Transfer credits from institutions outside the U.S. are considered on a case-by-case basis after the credential has first been evaluated by a recognized agency specializing in evaluation of international transcripts, such as World Education Services. (Evaluation by an outside agency is not required for transcripts issued by Canadian institutions.) Also considered are transfer credits for military training and education (other than training in military science) as recommended by the American Council on Education.

Only courses comparable to the types of courses offered at Alfred University are considered for transfer. Examples of coursework not acceptable are courses in vocational fields or those considered to be technical training. Mathematics courses below college algebra are not accepted. The coursework must be appropriate and applicable to some component of an AU bachelor's degree program, including general electives.

In courses graded A-F, only those courses in which the student has earned a "C" or above will be accepted. In courses graded pass/fail or credit/no credit, grades of "pass" and "credit" are accepted.

Grades received in courses taken at other institutions are not included in the calculation of the overall Alfred University GPA, so it is not possible to replace a grade earned at AU with a grade earned in an equivalent course taken elsewhere. Further, if a student repeats at Alfred University a course equivalent to one previously transferred, the grade and credits from the AU course are used in the calculation of GPA and total credit hours, The credit that had been transferred is excluded and no longer counts as credit earned.

Transfer credit evaluations are made under the direction of the Dean of the college in which the student is enrolled or wishes to enroll. The Registrar's Office posts the transfer credit to the student's record.

Once admitted to AU, a student must have the permission of the Dean in advance to take courses at another institution and to transfer this credit back to Alfred University. Petition forms to take courses elsewhere after admission to AU are available in the Student Service Center in Seidlin Hall.

Number of Credits Transferable
The maximum number of semester credit hours transferable toward any Alfred University degree program from all sources combined is 75, to include credit from other institutions, credit as recommended by the American Council on Education, and credit from standardized exams (see below). The 75-credit-hour maximum applies to transfer credit earned both before and after admission to an AU degree program.

Cross-Registration at Area Schools
To provide students with the opportunity to explore an area of interest not otherwise available, Alfred University participates in a cross-registration program with more than 15 area colleges and universities through the Rochester Area Colleges (RAC) consortium. The list of participating RAC members includes nearby Alfred State College. Cross-registration under this program is available in Fall and Spring Semesters to full-time degree-seeking undergraduate students.

The course to be taken must be one that is not available at AU and it must be applicable to some component of the AU degree program. Faculty advisor approval is required. Students should be aware that the various member schools operate on differing academic calendars. The registration deadlines and all other academic polices of the school offering the course apply. There is no additional tuition charge for RAC cross-registration, but any lab, materials, or other special fees must be paid.

Credits earned under this program are considered to be transfer credits. They count toward the 75 credit hour limit on transfer credit, and the grades received in cross-registered courses do not affect the AU grade point average (GPA). For more information, contact the Student Service Center.

Credit by Standardized Exams
To encourage students with outstanding ability and enterprise, Alfred University places special emphasis on advanced placement and other exams that assess college-level learning that occurred outside of the traditional college classroom setting. Through these examination programs, students may earn appropriate credit for courses at any level where college-level learning can be demonstrated. AU recognizes these programs:

- The **Advanced Placement** Program of the College Entrance Examination Board (AP). (For a list of scores accepted and corresponding transfer credit given at AU, see the AP Credit equivalencies chart on p. 83)
- The **International Baccalaureate** Program (IB). Alfred University will grant 30 semester hours of credit (sophomore standing) to students who have earned the International Baccalaureate diploma in high school. Students who have not completed the diploma will be awarded equivalent credit up to two introductory courses for each IB exam, depending on level of the exam and the score achieved. (For a list of scores accepted and corresponding credit awarded, see the IB Equivalencies chart on p. 84.)
- The **College Level Examination Program** of the College Entrance Examination Board (CLEP). Only the CLEP subject exams taken prior to admission are considered for credit toward the degree. (See the CLEP Equivalencies chart on p. 85.) Students who wish to take a CLEP Exam for credit after being admitted to a degree program at AU must receive permission in advance from the Dean of their college or school.

- Other standardized exams where no prescribed policy has been determined (DANTES, ECE) are considered on a case-by-case basis for transfer credit. Exam results are compared with national norms to determine credit and/or advanced placement.

Credits awarded from AP, IB, CLEP or from any other standardized exam program are considered to be transfer credits. They count toward the 75 credit hour limit on total transfer credit, and they do not affect the AU GPA.

Credits from standardized exams are evaluated separately by Alfred University from original score reports only, not from the transcript of another college or university. Students are responsible to make sure official score reports are received in the Office of the Registrar within one year of admission to AU as a degree-seeking student. Scores received after this time cannot be counted as credit toward the degree.

Alfred University Challenge Exams

Currently enrolled degree-seeking students may request a challenge examination for any undergraduate course which has not already been taken at Alfred University. (If any grade other than a "W" has been recorded at AU, the course cannot be challenged.) Students cannot take a challenge exam for any course that is a prerequisite for or a lower-level course for which they have already received credit. The student's Dean determines if an eligible course is appropriate for completion through a challenge examination.

Credits earned through an AU Challenge Exam are considered to be *institutional* credit, not "transfer credit", so these credits do not count toward the 75 credit hour limit on transfer credit. If the exam is passed, the credit from a challenge exam is posted to the transcript with a grade of "CH", indicating the course was successfully challenged. Credits earned by challenge exam do not affect the AU GPA. Petition forms for Challenge Exams are available at the Student Service Center in Seidlin Hall.

Academic Standing

The Scholastic Standards Committee of each college or school will serve as the approving authority for student academic standing. The Committee will be composed of the Dean, as chairperson, faculty representatives, a Student Affairs representative, and the Registrar. Student representatives may be added at the discretion of the college/school.

Definitions

- **Good Standing**: Meeting or exceeding the minimum requirements for satisfactory progress toward the degree.
- **Academic Probation**: Studies at the University may continue, but a probation contract may be required by the Dean and there may be limitations on credit load.
- **Academic Suspension**: Studies at the University are interrupted for at least one full semester. The permission of the Dean of the College/School that suspended the student is required in order for the student to resume studies at AU. The Dean may require that specific conditions be met before permission to return will be considered.

- Potential transfer credit while away from AU may or may not be allowed. Students who do not resume studies at the end of the period of Academic Suspension are withdrawn from the University and must be readmitted to the University in order to resume studies in the future.
- **Academic Dismissal**: Separation from the University due to serious, prolonged academic deficiency as evidenced by consistently low grades and, usually, repeated Academic Probation or Suspension. After a period of at least 2 years an application for readmission to the University may be considered on a case-by-case basis.

Students must maintain the following term and cumulative Grade Point Averages to remain in Good Standing:

In the College of Liberal Arts and Sciences, the College of Business, and in the Inamori School of Engineering:

The minimum GPA is 2.00 regardless of the number of credits attempted*

In the School of Art and Design:

Number of Credits Attempted*	Minimum GPA
0-35	1.70
36 or more	2.00

***"Credits Attempted" include transfer credits and all credits earned at AU, as well as the credits for withdrawn courses and courses with grades of "In Progress" (IP) or "Incomplete" (I). Only Audited courses are excluded.**

- A student whose term or cumulative GPA drops below the level established, or who is not satisfying requirements towards a degree, will be placed on Academic Probation or may be Academically Suspended or Dismissed.
- A student on Academic Probation who fails to attain the minimum term and cumulative GPA's for a second consecutive semester may be placed on Extended Academic Probation or on Academic Suspension, or may be Dismissed.
- A student with multiple semesters on Academic Probation or Extended Academic Probation, whether or not the semesters are consecutive, may be Academically Suspended or Dismissed.
- Students with a term or cumulative GPA below 1.00 are subject to Academic Suspension or Dismissal regardless of their prior academic standing.
- A student who is eligible for Academic Suspension a second time or who would be on Academic Probation/Extended Academic Probation for a third consecutive semester may be Academically Dismissed. A student eligible for a third Academic Suspension will be Dismissed from the University
- Students may appeal their Suspension or Dismissal through the Dean for presentation to the Scholastic Standards Committee of the College or School that placed academic sanctions on the student.

Academic Honors

Dean's List

A full-time degree-seeking student in good academic standing who earns at least a 3.5 grade point average for a Fall or Spring semester with 12 or more GPA hours, no letter grade below C-, and no grade of Incomplete (I) is placed on the Dean's List in his or her school or college for that semester. Notation of the award is made on the student's official transcript.

Graduation Honors

Honors in the Field of Specialization

Although specific requirements are determined by the faculty in the academic area offering the major, general requirements for honors candidates have been adopted by the faculty. Candidates for this honor shall have:

- attained a cumulative GPA of 3.30 in the courses of their field of specialization
- earned at least two semester hours of credit in independent study (may be waived by the major area faculty)
- passed an oral examination in the major and allied fields, conducted by a committee selected by the major faculty

Overall Honors

Sometimes called "Latin Honors", three grades of honors are awarded, upon faculty approval, to graduating seniors based on their cumulative scholarship attainment as evaluated upon completion of all requirements for the bachelor's degree. In order to be eligible for these honors a senior must have earned a minimum of sixty credit hours at Alfred University ("Passed Hours") with at least fifty "GPA Hours."

Summa cum laude, or highest honors - GPA of 3.90 and no grade below B
Magna cum laude, or high honors - GPA of 3.70 and no grade below C
Cum laude, or honors - GPA of 3.30

Alfred University Scholar

Students in the University Honors Program who earn at least a 3.20 cumulative GPA, successfully complete four Honors seminars, and write and defend an Honors Thesis, graduate with the designation "Alfred University Scholar". (See below for more information on the Honors Program.)

Top Undergraduate Honors

The highest ranked graduating student in each undergraduate college or school will be selected by the Registrar using the following guidelines:

- a minimum of 60 "GPA Hours"
- grades received in all courses transferred to AU will be included in the calculation of a student's "honors GPA" for this purpose only
- double degree students may be honored for their work in either college or school

The top undergraduate students are seated on the Commencement platform and are recognized during the ceremony.

Prizes and Awards

In addition to the academic honors formally attained for outstanding scholarship, a number of prizes and awards are sponsored by individuals and organizations. These special and commemorative awards are presented annually during Honors Convocation.

Honor Societies

The following are University Honor Societies in various disciplines:

Alpha Iota Delta – Decision Sciences
Alpha Lambda Delta – First-Year Students
Beta Gamma Sigma – Accredited Business Schools
Delta Mu Delta – Business Admin.
Keramos – Ceramic Engineering
Mu Kappa Tau – Marketing
Omicron Delta Upsilon – Economics
Pacioli Society – Accounting
Phi Alpha Theta – History
Phi Beta Kappa – Liberal Arts
Phi Kappa Phi – University-wide
Phi Sigma Iota – International Languages
Pi Gamma Mu – Social Sciences
Pi Sigma Alpha – Political Science
Psi Chi – Psychology
Tau Beta Pi – Engineering

University Honors Program

The Alfred University Honors Program is designed to enrich the lives of exceptional students. More than 130 "Alfred University Scholars" represent all colleges and schools within the University.

Honors seminars are the heart of the program. These informal classes, with an enrollment limit of 15, meet one evening a week. The discussion/debate is usually lively, because the seminars are chosen by the students themselves. Over a two-year period 25-30 seminars are offered, on topics as diverse as Marriage and Romantic Partnerships, Movement and Stillness: Yoga and Meditation, Comedy and Humor, Spirituality and the Counterculture, Tightwaddery, or the Good Life on a Dollar a Day, Urban Experience in Film, Superconductivity, or the Films of Joel and Ethan Coen.

The other academic component of Honors is the senior thesis. Theses come in all shapes and sizes, but the common thread is a chance to work closely with three faculty mentors on a project of substance. Theses are bound and become part of Herrick Memorial Library's permanent collection

Anyone with an outstanding high school record and a broad range of intellectual interests may apply. For more information, check out the Honors link on the Alfred University website or write to Dr. Gordon Atlas, Honors Program, Alfred University, One Saxon Drive, Alfred, NY, 14802, or email atlas@alfred.edu

Registration, Scheduling, and Attendance

Each student is assigned a faculty advisor who helps plan a course of study and who is available throughout the year. Students should also feel free to consult any faculty or staff member who might be able to help. Students are primarily responsible for their own academic progress, but all members of the faculty and administration are prepared to assist. Students must have their schedule or study plan for the following semester approved by their advisor(s) in order to register for classes. The written approval of the student's Dean is required to register for more than 18 credit hours in a semester (20 for School of Engineering).

Adding and Dropping Courses
A course may be added or dropped during the periods indicated in the Academic Calendar without penalty. Dropped courses do not appear on the student's transcript.

Withdrawing from a Course
A student may withdraw from a course and receive the grade of “W” with the signature of the instructor and the approval of the student's advisor during the period designated by the Academic Calendar.

Attendance
Regular class attendance is expected of all students. Under the “First Class Attendance Rule”, a student in a closed course who does not attend the first class meeting or communicate with the instructor or the Registrar's Office by the close of the day of the first class may be dropped from the course.

Leave of Absence/Withdrawal and Readmission

Taking a Leave of Absence

Alfred University recognizes that there are good reasons why a student may want or need to temporarily interrupt his or her education. Therefore, the University has established a leave of absence policy that assures students of the right to continue their education following a specified leave period.

- A student must make a written request for a leave of absence to the Dean.
- The request must include the reason(s) for the leave and the length of time the student plans to be away. Leaves are generally granted for one or two semesters. A leave of absence will not usually be granted for a semester in progress.
- Before granting the leave the Dean will consult with the Student Affairs Office. Students on judicial probation will normally not be granted a leave.
- Once a leave is granted the Dean will notify other interested University officials of the decision and the expected date of return.
- There are circumstances (for example, a felony conviction) under which a student's leave, and eligibility to return to the University, may be canceled.
- A student who is granted a leave of absence to deal with medical and/or psychological problems must submit a clinical evaluation to the Student Affairs Office and be approved to return from leave by the Dean of Students.
- A student who does not return from Leave of Absence when scheduled to do so will be withdrawn from the University.

Withdrawal and Readmission

A student who finds it necessary to withdraw from the University during the academic year or at the end of any semester, must contact Student Affairs to initiate official withdrawal. Students who withdraw officially are eligible for a refund of the enrollment deposit.

Undergraduate students admitted to the University are expected to continue to register for classes at AU and to pursue their degree. Those admitted to *full-time* study must enroll each Fall and Spring Semester. Students admitted to *part-time* study must enroll at least once in any 12-month period (Fall or Spring Semester, or Summer Sessions). Unless on an approved leave of absence, those who do not enroll on a regular basis as specified are withdrawn from the University. Students withdrawn under this provision forfeit their enrollment deposit.

A student who has withdrawn from school or who has been withdrawn, suspended, or dismissed for any reason may be granted the opportunity to return. Application for readmission must be in writing to the Director of Admission. These applications must be submitted by August 1 for Fall Semester readmission or by December 1 for Spring Semester readmission.

A readmitted student must complete the degree requirements of the University catalog in effect at the time of readmission or, at the student's choosing, the requirements of a later catalog.

Grades for Students Leaving School during the Semester

A student who formally leaves school during a semester by Leave of Absence or by Withdrawal will be given "W" grades in registered courses providing the deadline to withdraw from each course, as published in the Academic Calendar, has not passed. If the last day to withdraw from courses has passed, the instructor will record a final (non-W) letter grade. In case of extenuating circumstances the student's Dean may permit "W" grades to be recorded after the deadline has passed.

ALFRED UNIVERSITY CODE OF HONOR

We, the students of Alfred University, will maintain an academic and social environment which is distinguished by honesty, integrity, understanding, and respect. Every student is expected to uphold these ideals and confront anyone who does not. Keeping these ideals in mind, we, the students, aspire to live, interact and learn from one another in ways that ensure both personal freedom and community standards.

Student Senate Committee on Academic Affairs – April 2, 1997

Academic Dishonesty (Unethical Practices)

Definition

Unethical conduct or academic dishonesty is defined as any action that enables students to receive credit for work that is not their own. Such conduct will not be tolerated in any form. Academic dishonesty can occur both in and outside the classroom, studio, or lab. This might involve venues as varied as student publications, art exhibits, and public presentations.

In the context of tests, quizzes, examinations, or other in-class work, dishonest practices include but are not limited to:

- Marking an answer sheet in a way designed to deceive the person correcting it.
- Possession of unauthorized material that could be used during a quiz, test, or examination for the purposes of cheating.
- The unauthorized use of books or notes during a quiz, test, or examination.
- The hiding or positioning of notes or other tools for the purposes of cheating on a quiz, test, or examination.
- Unauthorized possession or knowledge of any examination prior to its administration.
- Looking at someone else's quiz, test, or examination without the express permission of the instructor.
- Any form of unauthorized communication during a quiz, test, or examination. This includes use of any electronic communication devices without the consent of the instructor. Such devices include--but are not limited to--cellular phones, Bluetooth, computer internet, recording devices, and PDA, CD and MP3 players.

In the context of writing assignments, research projects, lab reports, and other academic work completed outside the classroom, dishonest practices, commonly referred to as plagiarism, include but are not limited to:

- Lack of adequate and appropriate citation of all sources used.
- The appropriation of another’s ideas, analysis, or actual words without necessary and adequate source citations, either deliberately or inadvertently.
- The copying, purchase, or other appropriation of another person’s academic work with the intention of passing it off as one’s own original production.
- The creation of a document by more than one student that is then submitted to the instructor as the original creation of only one student, without the express permission of the instructor.
- Submitting the same piece of work to more than one instructor without the express permission of *all* instructors involved.

Guidelines for Avoiding Dishonest Behavior

The following guidelines are included to assist students in avoiding dishonest behavior in their academic work, particularly in writing assignments, research projects, and lab reports.

a) Students' written work should reflect their own personal preparation for the assignment, such as reading books and articles, performing research on the internet and in electronic databases, and taking notes in class and during the research process.
b) Students should avoid using the actual words of the authors of their sources whenever possible, opting instead to demonstrate an understanding of the authors' ideas by rewriting them in their own words.
c) All ideas and analyses that are derived from other authors must be attributed to those authors in the form of appropriate source citations, even when their own words are not used. Source citations usually take the form of footnotes, endnotes, or parenthetical citations in addition to a formal bibliography and/or works cited page at the end of the writing assignment. The format for these source citations depends on the conventions of each academic discipline: consult your instructor as to the appropriate form to use.
d) When the use of an author's specific text is unavoidable or necessary, that material must be identified as a direct quotation and must either be surrounded by quotation marks or formatted as a block quotation. Appropriate source citations must follow all quotations, as per the instructions above.
e) Circumstances when direct quotation is necessary or desirable include: when the wording of the text is essential to the student's own analysis; when the text exemplifies the author's particular perspective; when quoting the text is a more efficient way of presenting the author's ideas than a more elaborate and lengthy paraphrase would be. It should be noted that lengthy quotations and/or their overuse is neither desirable nor appropriate in most instances and should be avoided. Additionally, over-reliance on lengthy quotations can be considered a form of plagiarism.
f) Some instructors find collaborative assignments useful. Students may be allowed to collaborate in shared assignments only with the specific permission of the instructor. In those circumstances the limits to the collaboration will be established by the instructor and students should be aware that they are responsible for maintaining the appropriate limits to that collaboration.

Procedures

First Offense

If academic dishonesty is suspected, the following procedures should be followed:

a) Before a formal charge of academic dishonesty is made, the instructor is strongly encouraged to have his or her department chair or, if that department chair is deemed inappropriate or impractical, another colleague or administrator, review the alleged infraction.
b) Within seven semester days after the infraction is observed or verified, the instructor shall advise the student orally, if possible, and by email that the student has (or may have) committed an act of academic dishonesty. This will allow simple misunderstandings and misinterpretations to be resolved. A semester day is defined as a day when the university is in session and classes/exams are held.
c) If the instructor remains convinced that an offense has occurred, a written statement of the offense will be sent to the student by email and also by regular mail. The statement will include whatever penalty the instructor considers appropriate. For offenses categorized as Tier One (see below), a copy will be sent to the instructor's dean, the student's dean, and the Provost.

This letter should include a reference to this section of these regulations to inform students of their rights and the procedures to be followed if an appeal is needed.

d) The penalties assessed may range from non-grade penalties to failure in the course.

e) Infractions shall be categorized as Tier One (major) or Tier Two (other).

Tier One infractions shall be reported to the student's dean and the provost. A second Tier One infraction will result in dismissal from the university. Tier One offenses include (but are not limited to) the following: plagiarism, submission of a commercially-derived term or research paper or report or art-presentation, use of a research paper or report prepared by another person without the instructor's permission, producing a research paper or report for another student without the instructor's permission, cheating on an examination or quiz, aiding and abetting academic dishonesty, falsification of grades or records, unauthorized viewing or altering of academic or administrative records, gaining an unauthorized or unfair advantage on academic assignments (including preventing other students from fair access to academic materials), buying or selling assignments or examinations.

Tier Two infractions are generally considered less serious than Tier One offenses. They need not be reported to the Provost and the dean(s). Examples of Tier Two infractions include attendance-related dishonesty or submission of assignments to two or more classes without the instructor's permission. If an instructor is uncertain about categorizing an infraction as Tier One or Tier Two, he/she shall make a determination in consultation with a department chair or, if the chair is a party to the case or is otherwise unavailable, the dean or assistant dean of the college.

f) The academic dean of the student's college should advise the student of appeal procedures that are available.

Following a Charge of Academic Dishonesty

a) A student charged with an unethical practice may accept the judgment and penalty assessed by the instructor.

b) A student charged with an unethical practice may appeal in writing directly to the instructor who assessed the penalty within fourteen (14) semester days after the instructor sends email and written notification of the offense and penalty to the student. The fourteen semester-day period is not dependent on proof that the student has read the instructor's email or written notification.

c) If the penalty is modified to one acceptable to both student and instructor, the appropriate academic deans and the Provost will be notified of the change.

d) If the instructor will not modify the penalty, the student may present the case to the Ombuds Officer

e) In the event the matter is not resolved in a manner satisfactory to all parties through the Ombuds Officer's review, the Ombuds Officer may at his/her own initiative, or shall at the student's request, refer the matter to an appeals committee. A student request for appeals committee consideration of the matter must be made to the Ombuds Officer within fourteen (14) semester days after the Ombuds Officer notifies the student orally, by email, or in writing, that the Ombuds Officer has been unable to resolve the matter.

g) The appeals committee will be constituted by the Ombuds Officer within 14 semester days. Membership of the appeals committee shall include one student, to come from the University Student Grievance Committee, and two full-time and/or tenured faculty.

If the Student Senate has not appointed members of the Student Grievance Committee, or if those members stand in a conflict of interest with the student accused of the infraction, the Ombuds Officer may select any full-time senior student for this purpose. The appeals committee should meet as soon as possible after members of the committee have been selected. The appeals committee will review the case and prepare a written recommendation, to be forwarded to the student, the instructor(s) involved in the case, the student's academic dean, and the provost within seven semester days once the appeal committee has come to a recommendation.

h) The instructor, the appropriate departmental/divisional head (if he/she is not a party to the case), and the instructor's dean (if he/she is not a party to the case) will consider the recommendation and notify the student, the student's Academic Dean, and the Provost of their final decision.
i) The student may bring one other student or employee from Alfred University to the appeals committee hearing, but no person not a member of the university community shall be permitted to attend the hearing. The invited other person shall not have the right to speak or otherwise participate in the hearing. No sound or video recording of the appeal committee hearing shall be permitted.
j) If the student is subject to more than one charge of academic dishonesty in a single class and the student requests an appeal committee hearing, all charges shall be considered together in a single hearing.
k) All testimony given at the hearing shall be considered confidential except for communication to appropriate university faculty and administrators.
l) If the appeals committee judges that the student is not guilty of academic dishonesty and the instructor who made the initial charge accepts the recommendation of the committee, all written records pertaining to the matter will be destroyed.

Second Offense

Notification and appeal procedures regarding second infractions are identical to those for an initial infraction.

a) A student found guilty of a second major infraction will be dismissed from the university within fourteen (14) semester days, unless the student appeals the charge.
b) In unusual cases, the Provost has the right to dismiss a student who has committed more than one minor infraction from the university, to be determined by the Provost in consultation with the appropriate dean(s).
c) If the instructor chooses not to drop the charge and the student wishes to appeal the second offense, the Provost will transmit the appeal to the Ombuds Officer for an appropriate appeals committee review and recommendation for action to the Provost. If the review and recommendation confirms that the second offense is a major infraction and that the instructor's action is warranted, the student will be dismissed from the University immediately.
d) In the case of a senior who plans to graduate at the end of the semester in which the second offense occurs, the appeals committee review should be conducted as soon as practical. If the date of the commencement ceremony makes the appeals committee meeting impractical, then the Provost, together with the student's dean, shall have the authority to dismiss the student prior to the commencement ceremony.

Notification

Regarding all cases that fall under the purview "Second Offense", the Provost will notify the instructor(s) and student of a final decision.

When more than one college is involved (for instance, if a student from one college is charged with an infraction by an instructor in another college), the Provost shall inform all appropriate deans or program directors of the events and penalties.

Records

All reports and documents pertaining to each case, including faculty charges, student appeals, and appeal-committee records, along with written responses from the Provost's Office, will be filed with the Vice-President of Student Affairs. Where practical, electronic copies of this information shall be sent to the Provost.

All such information is subject to regulations regarding disposal of records and release of information mandated by Alfred University and/or found in the Family Educational Rights and Privacy Act (FERPA), or as mandated by any other controlling legal authority.

Course Numbering System

Courses offered at Alfred University are numbered as follows:

001–099 Courses of a remedial nature that do not carry credit toward any University degree.

100–199 Courses without prerequisites primarily for undergraduate students in their first year of study.

200–299 Courses with or without prerequisites primarily for undergraduate students in their first or second year of study.

300–399 Courses usually having prerequisites and offered primarily for undergraduate students in their third or fourth year of study.

400–499 Advanced courses primarily for undergraduate students in their fourth year of study.

500–599 Courses primarily for graduate students. With permission of the instructor, undergraduate seniors in good standing may enroll in these courses for undergraduate or graduate credit. (May count for graduate credit only if not required to complete the undergraduate degree.)

600–699 Advanced graduate courses open only to graduate students.

A few designated courses at the 400-level may be taken for graduate credit only by students who have been formally admitted to the Graduate School prior to the registration; permission of the advisor is required.

Physical Education

The Physical Education program offers a wide variety of activity and theory courses, all of which are coeducational. Emphasis is placed on meeting individual needs. The program presents a broad range of beginning-level courses to help students develop skills in activities and seasonal sports that will carry over into later life. Advanced courses give students an opportunity to perfect techniques and skills in a sport. While skill and conditioning are important aspects of the courses, knowledge of rules, equipment, technique and strategy is stressed.

Special Academic Programs

Study Abroad

Alfred University encourages students to consider opportunities for studying or pursuing internships abroad. There are many programs and options available. A complete list of approved programs can be found at:
http://alfred.edu/studyabroad/where.html

Policies and Requirements

To be approved for Study Abroad, a student must:

- have a formally declared major
- be in good standing academically and socially during the semester in which studying abroad
- meet the minimum requirements of the proposed program abroad
- pay in full their AU student account

Generally, study abroad is supported for one semester. Students who are language or Comparative Cultures majors may sometimes study two semesters abroad. Study abroad is intended for the junior year unless the academic program is best accommodated at another point in time. Students must have been enrolled at AU as a fulltime student for at least two semesters prior to study abroad, and must have at least second semester sophomore standing at AU while studying abroad. Study abroad may not be in the intended last semester of enrollment.

Grade Point Average

A minimum 2.7 GPA for AU approved/affiliated programs. Occasional exceptions are made and students going on Exchange Programs are handled case-by-case basis

Language Level

Those planning to study in a program where the language of instruction is not English must demonstrate sufficient proficiency in the language of the host country to enable them to pursue course work.

Courses and Course Load

- Students must carry a full-time load of coursework; this cannot be less than the equivalent of 12 credit hours for semester-long study abroad programs.
- Participation in an off-campus study abroad program precludes simultaneous registration for AU coursework (independent study, internships, etc.). The off-campus study program must report all credit earned for the semester abroad.
- Students who remain registered for regular classes (non-OCST) on-campus in Alfred on the first day of the term here, are charged AU tuition for those classes.
- A Study Abroad Course Approval form (available in the Office of International Programs) must be filled out and approved by the faculty advisor, the Director of the Office of International Programs, and the Dean. This form lists all the courses to be taken abroad and their AU equivalents.
- Credit earned by the student on approved programs must transfer as credit towards graduation and may fulfill major/minor requirements subject to the approval of the Dean of the College/School.
- In order for the credits to be transferred to AU, the student must obtain a grade equivalent to “C” or better in any course.
- Grades earned on a study abroad program are not calculated in the Alfred University GPA.

Deadlines
Applications for spring semester programs should be submitted before October 1; for summer, fall, and year-long programs, applications should be submitted by March 1.

Required Pre-departure Class
All students going abroad are required to enroll in OCST 301, the study abroad preparation class. This class is designed to give students important academic and administrative information and to prepare them for adjustments they will have to make while living in other cultures and attending foreign universities. It is a B-block class (meets only in the second half of a semester) and students should take it the semester before they are planning on studying abroad.

Alfred Research Grants for Undergraduate Students

Students in all colleges may apply for ARGUS funding for a research project of one-semester, a full-year, or a summer. Students write their own grant proposals after consulting with faculty on developing a research or creative project. If funded, a student may receive an award of $1500 for a year or $750 for a semester. This award includes money for supplies and materials and money for a stipend paid directly to the student. When the project is completed, students are expected to participate in the annual Undergraduate Research Forum. ARGUS scholars are encouraged and sometimes funded to report their research at professional meetings. For more information, students should look at the ARGUS home page on the University web site.

Special Program for Area High School Students

Qualified high school juniors and seniors from Allegany, Cattaraugus, Chautauqua, Chemung and Steuben counties are eligible to take up to two 100- and 200-level courses (up to eight semester hours) per term during Fall or Spring semesters for a fee of $100 per course. Eligibility begins with the start of the junior year and ends with high school graduation. The approval of the student's guidance teacher or principal is required.

Entrance into a particular course depends upon available openings in the course. Students register in person at the Student Service Center up to two-weeks before the first day of the semester. High school students who take AU courses through this program are not guaranteed acceptance into any Alfred University degree program at a later date.

University Libraries

Herrick Memorial Library

Herrick Memorial Library is committed to providing strong, curriculum-centered collections, personal service, and state-of-the-art access to information.

Renovated in 2007 it provides space for group study, supported by appropriate technologies, in its Learning Commons. There is space for reflection and/or discussion in its café, where new journals, books and newspapers can be enjoyed with coffee and snacks. An all-night study room is available for use after the library closes, providing study space and a computer lab 24/7 . The library also has four meeting rooms which can be reserved by members of the Alfred University community. Group study rooms and quiet, individual workspaces are also available, accommodating a wide variety of study preferences.

There are 40 computer workstations throughout the building and an additional 20 laptops which can be checked out for use in the library. Wireless access is available throughout the building.

Herrick Memorial Library's website [http://herrick.alfred.edu] provides round-the-clock access to the library catalog, electronic reserves, electronic journals specialized databases, and other resources selected by our librarians to support student and faculty research. Herrick subscribes to more than 100 periodicals in print and provides online access to over 70,000 periodical titles and over 45,000 e-books. Its collection contains over 200,000 items, including recreational collections of fiction, DVDs, Videos, and CDs.

Herrick also offers Interlibrary Loan and Document Delivery Service, which provides access to materials from other libraries. Professional research support is available more than 40 hours a week, enabling library users to make the most of their research efforts. Research questions can be submitted to "Ask a Librarian" on the library's web site at any time.

Herrick's librarians are committed to supporting the University's educational mission and to promoting information literacy skills. It is the Library's goal to teach students how to locate, evaluate, and effectively use information. This is accomplished through course-related and individualized instruction as well as by providing research guides for specific subject areas.

Special Collections and Archives, located on the top floor of Herrick Library, offers its collections and services in a secure, climate-controlled area. The area features an ornately decorated conference room with seventeenth century English oak paneling. The Archives provide primary source materials which document the history of the University.

Scholes Library

The Samuel R. Scholes Library of Ceramics, established in 1947, is a special library providing academic support for the University's statutory and non-statutory programs in art and engineering.

The Scholes Library collections are recognized internationally as a resource for information on the art, science, technology, and history of ceramics and glass. The library also has outstanding holdings in the areas of advanced materials, photography, art history, contemporary art, electronic media, graphic design, glass art, and sculpture. The collections include 70,000 books, 37,000 bound periodical volumes, and an extensive collection of journal titles in print and electronic formats. The Scholes Library Visual Resources division houses a collection of 170,000 slides, and is fully engaged in image digitization efforts that support and enhance classroom instruction. During the academic year the library is open over 90 hours per week, with extended hours during final examination periods. Professional reference service is available during most hours that the library is open. The library faculty and staff are dedicated to helping undergraduate and graduate students to develop the skills they need to locate and use information effectively. In addition to providing assistance at the Reference Desk, the librarians offer group and individual instruction sessions tailored to the needs of art and engineering students at all levels.

Scholes Library is a four-story facility designed to provide outstanding information services. There are group study rooms, graduate carrels, and faculty studies, as well as a 24-hour study room. There is wireless access throughout the building. The library's Web page [http://scholes.alfred.edu] provides quick links to the online catalog and many specialized indexes, full-text and image databases, and thousands of other resources available 24/7. Both of the Alfred University Libraries are full

participants in the SUNY*Connect* initiative linking libraries on the campuses of the State University of New York into one large "virtual library," greatly expanding access to print and electronic resources for all Alfred University students.

Computers are available for student use throughout the library; and the Gibbs Research Commons offers computing workspace designed for comfort and collaboration.

Other services available to both students and faculty include classrooms equipped for slide, film, and computer data projection, an extensive Visual Resources facility, and spaces for individual or group media viewing. The Special Collections Room houses rare and unique materials, including a collection of artists' books and all original theses and dissertations by graduates of the New York State College of Ceramics at Alfred University.

The College Archives preserve historical documents and photographs relating to the history of the College; also located here are the Archives of the National Council on Education for the Ceramic Arts (NCECA). Under the supervision of a trained archivist, this facility serves as a resource for scholars researching the history of American ceramics.

Technology Resources

Alfred University is committed to providing a campus computing environment where technology is fairly and equitably distributed in support of the University's educational mission.

Our ultimate goals for the use of information technology are to prepare students for an information-based workplace, enabling them to seek, organize, analyze, and apply information and associated technologies appropriately; to provide anytime/anywhere learning opportunities for students and faculty; to enrich the learning environment; and to improve productivity and cost-effectiveness.

The University has a multi-million dollar 100 Mpbs network that provides internet access to every residence hall room, classroom and office on campus 24 hours per day, 7 days per week. The network backbone was installed with Gigabit fiber in anticipation of meeting future needs. In addition, the University has embarked on an aggressive computer upgrade initiative, replacing servers, student labs and faculty offices in an on-going 3-year cycle.

The University uses a variety of approaches in making computers available to students. General and specialized computing labs are located throughout the campus providing access to Windows and Macintosh operating systems. Laboratory computers are pre-configured with Microsoft Office Professional desktop software, FireFox, and Microsoft Internet Explorer. Specialized software such as SPSS, Adobe Creative Suite, Final Cut Express, Maple, Mathematica, SolidWorks, ArcGis, Minitab and others are available in select lab settings.

Wireless network access is available in most campus buildings and locations. Email, file storage space and personal web page hosting services are provided to current faculty, staff, and students.

The University's two libraries make their catalogs and a wide variety of electronic databases and information resources available through their well-developed Web Pages. This means that students, faculty and staff can access research information from any place with Internet access at any time of day or night.

Students may borrow laptops (PC or MAC) through ITS equipment lending in Perlman hall. This program enables students with short-term computing needs to borrow a laptop for use anywhere on or off campus. ITS Equipment Lending also offers audiovisual equipment for short-term use in class projects. Equipment includes: computer projectors, digital still, and video cameras, digital audio recorders, and other equipment that facilitates media production.

Alfred University provides a wide range of Web communication resources, including Blackboard learning management system, Alfred Today, and the student Web portal, which support student academic, extracurricular, and social life. Increasingly, these resources are being tailored for use on mobile devices and smart phones

Students register for classes through the on-line BannerWeb process. They can review their grades, check their student account, and print off their class schedule to name just a few of the features that Banner provides.

The AU Information Technology Help Desk provides service-oriented support for campus technology needs and also offers employment and technical experience through the Student Technology Assistants (STA) program.

Summer School

In two six-week sessions, and special short-term, intensive sessions of one to four weeks, the Summer School offers a variety of courses at the undergraduate and graduate level. Attending Summer School is appropriate for people who:

- want to accelerate undergraduate studies
- are interested in graduate work
- need to make up a course or complete certain requirements
- wish to expand knowledge or skills in a variety of fields

No examinations are required to register for Summer School. Students enroll in courses for which they are qualified by experience or previous preparation. Certain advanced courses, however, may not be taken unless prerequisite requirements have been fulfilled. Regular attendance is expected.

Students enrolled in another institution who plan to attend Summer School at Alfred University should consult an official at the home school in advance to be sure the courses are appropriate to their degree programs.

Some of the special features of Alfred University's Summer Programs are the Astronomy, Chemistry, Computer, Creative Writing, Engineering, Entrepreneurship, Robotics and Theater Institutes for high school students, conferences, weekly Davis Memorial Carillon concerts, sports camps and day camps.

For additional information, write to the Office of Summer Programs, Alfred University, One Saxon Drive, Alfred, New York 14802. (607-871-2612)

The Graduate School

Graduate programs are offered in keeping with educational demands and with the potential of certain departments in the University to make distinctive contributions at an advanced level.

Degree programs offered are: Master of Arts, Certificate of Advanced Study, and Doctor of Psychology in School Psychology; Master of Business Administration in Accounting and in Business Administration; Master of Science in Education/Certificate of Advanced Study in Counseling; Master of Science in Education – Literacy Teacher; Master of Fine Arts in Ceramic Art, Sculpture/Dimensional Studies, or Electronic Integrated Arts; Master of Public Administration; Master of Science in Biomedical Materials Engineering Science, Ceramic Engineering, Electrical Engineering, Glass Science, Materials Science and Engineering, or Mechanical Engineering; Doctor of Philosophy in Ceramics, Glass Science, or Materials Science and Engineering.

Specific graduate degree requirements and detailed descriptions of courses and programs are in the Graduate School catalog available from the Graduate School Office, One Saxon Drive, Alfred University, Alfred, NY 14802. Telephone (607) 871-2141. This information is also available on the web at www.alfred.edu/gradschool.

Graduation Rate

Alfred University is pleased to provide the following information in compliance with the Higher Education Act, as amended. These rates reflect the graduation status of students who were admitted in the Fall of 2004 and for whom 150% of the normal completion time has elapsed. In the Fall Semester of 2004, 516 first-time, full-time degree-seeking undergraduate students enrolled at AU. After 6 years (as of August 31, 2010), 64% of these students had graduated from Alfred University.

Religious Beliefs and Class Attendance

No person shall be expelled from or refused admission as a student to an institution of higher education for being unable, because of religious beliefs, to attend classes or to participate in any examination, study or work requirements on a particular day or days

- Any student who is unable, because of religious beliefs, to attend classes on a particular day or days shall, because of such absence, be excused from any examination or any study or work requirements
- It shall be the responsibility of the faculty and of the administrative officials of each institution of higher education to make equivalent opportunities available to any student absent from school because of religious beliefs, to make up any examination, study, or work requirements which might have been missed because of such absence. No fees of any kind shall be charged for making such equivalent opportunity available

- If classes, examinations, study or work requirements are held after 4:00 p.m. on Friday, or on Saturday, similar or makeup classes, examinations, study or work requirements shall be made available on other days, where it is possible and practicable to do so, and no special fees shall be charged for these.

In carrying out the provisions of this section, it shall be the duty of the faculty and of the administrative officials to exercise the fullest measure of good faith. No adverse or prejudicial effects shall result to any student because of availing him/herself of the provisions in this section. Any student who is aggrieved by the alleged failure of any faculty or administrative official to comply in good faith with these provisions shall be entitled to maintain an action or proceedings in the supreme court of the county to enforce his/her rights under this section.

Student Rights under the Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act of 1974, as Amended (FERPA) affords Alfred University students certain rights with respect to their education records. These rights are:

1. The right to inspect and review their education records within 45 days of the day the University receives a request for access. Students should submit to the registrar, dean, division chair, or other appropriate official, written requests that identify the record(s) they wish to inspect. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. The right to request the amendment of those education records believed by the student to be inaccurate or misleading. Students should write to the University official responsible for the record, clearly identify the part of the record they want changed, and specify why it is believed to be inaccurate or misleading. If the University official responsible for the record decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. In the same notification, the University will also advise the student of procedures for a hearing. Insofar as possible, the services of the University Ombudsperson and the members of the Ombudsperson's Student Grievance Committee will be used in these instances.

3. The right to consent to disclosures of personally identifiable information contained in their education records, except to the extent that FERPA authorizes disclosure without consent. Disclosure without consent may be made as follows:
   - to school officials with legitimate educational interest. A school official is a person employed by the University in an administrative, supervisory, academic or research, or support staff position (including Security and Health Center personnel); a person or company with whom the University has contracted (such as an attorney, auditor, or a collection agent and, specifically, the National Student Clearinghouse and, for those students purchasing health insurance through the University, Academic Risk Management); a person serving on the Board of Trustees; or a student serving on an official University committee charged with a task that involves review of education records, or assisting another school official in performing his or her tasks. A school official has legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

- to parents of dependent students.
- in connection with financial aid.
- to Federal State, and local authorities in connection with an audit or evaluation of compliance with education programs.
- to organizations conducting studies for or on behalf of educational institutions.
- to comply with a judicial order or subpoena. (In most cases, the University must make reasonable effort to notify a student in advance of compliance.)
- in connection with a health or safety emergency.
- to an alleged victim of a crime of violence, the University may release the results of a related judicial hearing. If the charges involve sex offenses (forcible and non-forcible), the student bringing the charges as well as the student charged will be informed of related judicial hearing results.
- to the student.
- to the public, at the discretion of the University, those portions of education records defined as "Directory Information." Note, however, that students may request that the University withhold Directory Information.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Alfred University to comply with the requirements of FERPA. The name and address of the office that administers FERPA are:

Family Policy Compliance Office
U.S. Department of Education
600 Independence Avenue, SW
Washington, DC 20202-4605

Courses that Satisfy the Global Perspective (GP) Requirement

Anthropology

ANTH 110	Cultural Anthropology
ANTH 303	Health and Culture
ANTH 304	Language and Culture
ANTH/BIOL/GLBS 305	Belize and the Caribbean
ANTH 312	Anthropology of Violence
ANTH 320	The Islamic World

Art History

ARTH 121	Wild Spirits and Divine Kings
ARTH 122	Arts of the Pacific Isles
ARTH 124	Native American Arts: Materials and Technologies
ARTH 301	African Art I
ARTH 302	African Art II
ARTH 354	Recent Sculptural Practices
ARTH 363	Ceramics and Cultural Identity
ARTH 490	Issues in Non-Western Art Seminar

Biology

BIOL 109	Health in History
BIOL 140	Global Ecology

Business

BUSI 457	International Business

Economics

ECON 412	International Economics

English

ENGL 252	Contemporary World Literature
ENGL/WMST 381	International Women Writers

Engineering

ENGR 208	Energy in the World

Environmental Studies

ENVS 101	Environmental Studies I - Natural Science
ENVS 102	Environmental Studies I - Social Science
ENVS 105	Atmosphere, Humans, Ecosystems
ENVS 201	Environmentalism
ENVS 245	Spirituality and the Environment
ENVS 352	The Earth's Climate System and Human Impacts

Finance

FIN 458	International Financial Management

French

FREN 210	Global Perspectives: Paris
FREN 313	French Speaking Africa
FREN 316	Contemporary French Culture
FREN 410	French Film Criticism
FREN 485	Internship in French

Global Studies

GLBS 101	Intro to Global Studies/Intercultural Communication

GLBS 105	The World Using Geographic Information Systems
GLBS/ANTH/SOCI 495	Global Issues Seminar

German

GRMN 313	German Literature II
GRMN 316	German History and Culture
GRMN 410	History of German Cinema
GRMN 485	Internship in German

History

HIST 107	The World in the 20th Century
HIST 111	Modern Western History
HIST 301	America in War during the 20th Century
HIST 316	Twentieth-Century Europe
HIST 318	North Africa in Modern Times
HIST 319	Middle East in Modern Times
HIST 322	Churchill, Stalin, Roosevelt, Hitler
HIST 383	The Nazi Holocaust
HIST 387	Modern France, 1815-Present
HIST 388	Empire and Nation in Eastern Europe

Marketing

MKTG 489	International Marketing

Music

MUSC 211	World Music

Political Science

POLS 251	European Politics
POLS 253	Dictatorship and Democracy
POLS 271	World Politics
POLS 273	Terrorism and International Security
POLS 282	Latin American Politics

Religious Studies

RLGS 105	Introduction to World Religions
RLGS 252	Judaism and Islam
RLGS 265	Asian Religions: India, China, Japan
RLGS/ANTH 309	Magic and Religion
RLGS 374	Myth, Yoga, and Philosophy of India

Sociology

SOCI 343	Race and Ethnicity

Spanish

SPAN 312	Peninsular Culture and Literature II
SPAN 316	Latin American Culture and Literature II
SPAN 402	Readings in Modern Latin American Literature
SPAN 404	Latinos/as in the United States
SPAN 485	Internship in Spanish

Theatre

THEA 210	The Performing Arts: A Global Perspective

Advanced Placement (AP) Examination Equivalencies

AP Examination	Credit-Granting Score	Credit Granted	Equivalent AU Course/Area
Art History	4 or 5	4	ARTH 130 and ARTH 140
Biology	4 or 5	8	BIOL 201 and BIOL 202
Calculus AB	3, 4, or 5	4	MATH 151
Calculus BC	3, 4, or 5	8	MATH 151 and MATH 152
Chemistry Chemistry	4 5	4 8	CHEM 105 CHEM 105 and CHEM 106
Computer Science A	3, 4, or 5	4	CSCI 156
Computer Science AB Computer Science AB	3 4 or 5	4 8	CSCI 156 CSCI 156 and CSCI 157
Economics Macro	4 or 5	3	ECON 202
Economics Micro	4 or 5	4	ECON 201
English Language and Composition	4 5	4 6	ENGL 101 ENGL 101 + 2 Cr Eltv
English Literature and Composition	4 5	4 6	ENGL 101 ENGL 101 + 2 Cr Eltc
Environmental Science	4 or 5	4	ENVS 101
French Literature	4 or 5	4	FREN 102
French Language	3 or 4 5	4 4	FREN 102 FREN 202
German Language	3 or 4 5	4 4	GRMN 102 GRMN 202
Comparative Gov't & Pol	4 or 5	4	POLS 110
U.S. Gov't & Politics	4 or 5	4	POLS 110
World History	4 5	4 8	General Ed (Area D) General Ed (Area D)/4 Cr Eltv
U.S. History	4 5	4 8	HIST 211 HIST 211 and HIST 212
European History	4 5	4 8	HIST 110 HIST 110 and HIST 111
Human Geography	4 or 5	4	General Ed (Area E-Soc/Anth)
Italian	4, or 5	4	ITAL 102
Latin Literature	4, or 5	4	LATN 102
Music Theory	4 or 5	4	MUSC 120
Physics B	4 5	4 8	PHYS 111 PHYS 111 and PHYS 112
Physics C: Mechanics	4 or 5	4	PHYS 125
Physics C: Elec & Magnet	4 or 5	4	PHYS 126
Psychology	4 or 5	4	PSYC 101
Spanish Language	3 4 5	4 4 4	SPAN 102 SPAN 201 SPAN 202
Spanish Literature	4 or 5	4	SPAN 102
Statistics	4 or 5	3	BUSI 113
Studio Art – Drawing	4 or 5	4	ART 111
Studio Art – 2D/3D (General)	4 or 5	4	General Ed (Area C)

International Baccalaureate (IB) Equivalencies

Alfred University grants 30 semester hours of credit (sophomore standing) to students who have earned the IB diploma in high school. Scores of 4 or better on the higher-level (HL) exams and scores of 5 or better on the subsidiary level (SL) exams are considered for equivalent course credit. When necessary, liberal arts general elective credits are awarded to reach a total of 30 credits.

Students who have not completed the IB diploma are awarded equivalent course credit for up to two introductory courses for each higher level exam (HL) in which a grade of 5 or better was earned. Equivalent credit for one introductory course is awarded for each subsidiary level examination (SL) in which a grade of 6 or better was earned.

IB Examination (level)	**Score**	**Equivalent AU Course/Credit**		
				(CLAS Gen Ed category)
Higher Level Exams: (4 or 5)				
Economics (HL)	4*-5	ECON 201	4 Cr.	(E2)
English A1 (HL)	4*-5	ENGL 101	4 Cr	(01)
Languages (HL)	4*-5	(Lang) 101	4 Cr	(02)
Visual Arts (HL)	4*-5	ART 100	4 Cr	(C)
History of Americas (HL)	4*-5	HIST 211	4 Cr	(D)
Biology (HL)	4*-5	BIOL 103	4 Cr	(F1)
Chemistry (HL)	4*-5	CHEM 103	4 Cr	(F1)
Mathematics (HL)	4*-5	MATH 101	4 Cr	(03)
Physics (HL)	4*-5	PHYS 111	4 Cr	(F1)
Theatre (HL)	4*-5	THEA 110	4 Cr	(C)
Theory of Knowledge	B or A	PHIL 101	4 Cr	(B)
***a 4 is considered for equivalent credit on HL exams only for students who have earned the IB Diploma**				
Higher Level Exams: (6 or 7)				
Economics (HL)	6-7	ECON 201, 202	7 Cr	(4 cr E2)
English A1 (HL)	6-7	ENGL 101, 102	8 Cr	(01)
Languages (HL)	6-7	(Lang) 101, 102	8 Cr	(02)
Visual Arts (HL)	6-7	ART 100	8 Cr	(C)
History of Americas (HL)	6-7	HIST 211, 212	8 Cr	(D)
Biology (HL)	6-7	BIOL 103, 107	8 Cr	(F1)
Chemistry (HL)	6 7	CHEM 105 CHEM 105, 106	4 Cr 8 Cr	(F1) (F1)
Mathematics (HL)	6-7	MATH 101, 115	8 Cr	(03)
Physics (HL)	6-7	PHYS 111, 112	8 Cr	(F1)
Theatre (HL)	6-7	THEA 110, 200	8 Cr.	(4 cr C)

IB Examination (level)	Score	Equivalent AU Course/Credit		
				(CLAS Gen Ed category)
Subsidiary Level Exams:		*Students Earning the IB Diploma*		
Economics (SL)	5-7	ECON 201	4 Cr.	(E2)
English A1 (SL)	5-7	ENGL 101	4 Cr	(01)
Languages (SL)	5-7	(Lang) 101	4 Cr	(02)
Visual Arts (SL)	5-7	ART 100	4 Cr	(C)
History of Americas (SL)	5-7	HIST 211	4 Cr	(D)
Biology (SL)	5-7	BIOL 103	4 Cr	(F1)
Chemistry (SL)	5-7	CHEM 103	4 Cr	(F1)
Mathematics (SL)	5-7	MATH 101	4 Cr	(03)
Mathematical Studies (SL)	5-7	MATH 101	4 Cr	(03)
Physics (SL)	5-7	PHYS 111	4 Cr	(F1)
Theatre (SL)	5-7	THEA 110	4 Cr	(C)
Subsidiary Level Exams:		*Certificate or Non-Diploma* *(no credit for a score of 5 on SL Exams)*		
Economics (SL)	6-7	ECON 201	4 Cr.	(E2)
English A1 (SL)	6-7	ENGL 101	4 Cr	(01)
Languages (SL)	6-7	(Lang) 101	4 Cr	(02)
Visual Arts (SL)	6-7	ART 100	4 Cr	(C)
History of Americas (SL)	6-7	HIST 211	4 Cr	(D)
Biology (SL)	6-7	BIOL 103	4 Cr	(F1)
Chemistry (SL)	6-7	CHEM 103	4 Cr	(F1)
Mathematics (SL)	6-7	MATH 101	4 Cr	(03)
Mathematical Studies (SL)	6-7	MATH 101	4 Cr	(03)
Physics (SL)	6-7	PHYS 111	4 Cr	(F1)
Theatre (SL)	6-7	THEA 110	4 Cr	(C)

NOTE: The maximum number of credits to be awarded is 30. When necessary, 2 credits of liberal arts general elective are awarded to students who completed the IB Diploma to reach 30-credits.

College Level Examination Program (CLEP) Equivalencies

Only CLEP subject exams taken prior to admission to AU are considered for credit toward the degree.

CLEP Examination	Credit-Granting Score	Credit Granted	Equivalent AU Course/Area
Composition and Literature:			
American Literature	50*	4	ENGL 241
Analyzing and Interpreting Literature	50*	4	General Elective
Freshman College Composition	50*	4	ENGL 101
English Literature	50*	4	ENGL 223
English Composition	n/a	none	none
Humanities	n/a	none	none
*** Credit is granted only with an acceptable locally-graded essay**			

CLEP Examination	Credit-Granting Score	Credit Granted	Equivalent AU Course/Area
Science and Mathematics			
College Algebra	50	3	MATH 115
Algebra-Trigonometry	50	3	MATH 118
Biology	50	4	Natural Sci, non-lab (F2)
Chemistry	50	4	Natural Sci, non-lab (F2)
Calculus with Elementary Functions	50	3	MATH 151
Trigonometry	50	3	General Elective
College Mathematics	n/a	none	none
Natural Science	n/a	none	none
Foreign Languages			
French	50-61	4	FREN 101
	62+	8	FREN 101/FREN 102
German	50-62	4	GRMN 101
	63+	8	GRMN 101/GRMN 102
Spanish	50-65	4	SPAN 101
	66+	8	SPAN 101/SPAN 102
History & Social Sciences			
American Government	50	3	POLS 110
Educational Psychology	50	3	General Elective
Human Growth and Development	50	3	General Elective
Macroeconomics, Princ of	50	3	ECON 202
Microeconomics, Princ of	50	3	ECON 201
Psychology, Introductory	50	3	PSYC 101
Sociology, Introductory	50	3	SOCI 110
U.S. History I	50	3	HIST 211
U.S. History II	50	3	HIST 212
Western Civilization I	50	3	Historical Studies (D)
Western Civilization II	50	3	Historical Studies (D)
Social Sciences & History	n/a	none	none
Business			
Accounting, Principles of	50	3	ACCT 211
Business Law, Intro	50	3	LAW 241
Information Sys/ Computer Apps	50	3	MIS 101
Management, Principles of	50	3	MGMT 328
Marketing, Principles of	50	3	MKTG 221

College of Liberal Arts and Sciences

The Bachelor's Degree

The undergraduate curriculum in Alfred University's College of Liberal Arts & Sciences emphasizes those areas of study which form the basis for any truly liberal education. We use the term "liberal" here in its original sense, that of freeing the mind to explore various fields of interest.

We believe that liberally educated citizens perform complex intellectual tasks, tasks which have technical, moral, and political consequences. Our effort is to give our students the constructive skills to accomplish those tasks. These skills include conceptual analysis, disciplined writing, and a creative approach to problem solving. We put specialized knowledge and inquiry into values within living contexts, encouraging our students to meet real demands in real situations. We prepare them not only for multiple careers, but for graduate and professional schools and for leadership in the world.

Our faculty members are dedicated to teaching and advising. They give the kind of personal attention that encourages students to find their directions and to succeed in their efforts. Faculty advisors are available not only to assist in choosing courses and majors, but also to help with personal and career decisions. In the classroom and within our advising structure, we pay close attention to students as individuals and assist them to achieve, often beyond their own expectations. Our requirements for the bachelor's degree combine breadth of study in a range of subjects and disciplines, represented by the general education program, with specialization in a major field of study. The College offers 26 majors and over 35 minors. (see pp. 91-92) In addition, students may take courses and complete minors in other colleges within the University, as long as prerequisites for these courses and minors are met.

Graduation Requirements

To qualify for a Bachelor of Arts (B.A.) or Bachelor of Science (B.S.), students must complete the following:

- a minimum of 124 credit hours with a cumulative grade point average of at least 2.00, of which at least 90 credits must be liberal arts course work for the B.A. and at least 60 liberal arts credits for the B.S.
- the requirements for the CLAS general education program (see below)
- the First-Year Experience (FYE) requirement or Transfer Student Seminar
- the requirements for a CLAS approved major
- the University Global Perspective requirement (see p. 57; p. 81)
- the University Physical Education requirement (see p. 57)
- at least 45 credits in residence at Alfred University
- complete the final 30 semester hours in residence (for exceptions see AU policy on "Transfer of Credit")

Advising

The College of Liberal Arts and Sciences believes that high quality academic advising is essential to the well-being of both the College and its students. This emphasis helps fulfill the University's pledge to help students define and develop realistic needs and goals and to successfully match those needs with available institutional resources.

The advising process is most successful when the advisor and the student have a close working relationship. Students should plan to meet with their advisor on a regular basis throughout the semester. In consultation with their faculty advisors, students explore their personal and professional goals, interests and abilities and work out a plan of study for each semester.

Students are ultimately responsible for making their own decisions and for meeting all requirements. Academic advisors assist students in exploring alternatives and becoming self-directed.

Transfer Students
The following criteria apply to the evaluation of transfer records:

- For transfer students, decisions about whether a transfer course satisfies a specific general education requirement are made by the advisor or dean, in consultation with the academic program with oversight for that particular general education area.
- Decisions about whether a transfer course satisfies a major or minor requirement are made by the Chair or Director of the specific academic program, in consultation with the faculty of that program.
- A three credit-hour course will satisfy a four-credit hour general education requirement; however, only 3 credits will be applied in transfer credit.
- See the University policy on transfer credits for more detailed information.

General Education Requirements for All Students

The general education program, required of all students in the College of Liberal Arts and Sciences, is designed to help students achieve greater intellectual breadth and proficiency and to create common points of reference for students from different disciplines. The program introduces students to the tools they will need for advanced study and exposes them to different ways of thinking about their world. This curriculum allows students to develop the kind of intellectual flexibility they will need for meeting future challenges.

The program has two main features: (1) it emphasizes the importance of each student demonstrating basic competencies early in the college program, either through proficiency examinations or through course work that teaches these competencies; this is an important part of the curriculum since it provides tools essential for successful work in advanced courses, as well as promoting skills that are valuable after graduation; (2) it requires each student to have exposure to six areas of knowledge; this is intended to provide a broad foundation both for more advanced study and for a lasting intellectual engagement with scholarly and cultural issues.

The general education program is divided into two parts: basic competencies and areas of knowledge. Students are expected to complete the basic competencies during the first two years of study. Students are encouraged, although not required, to complete the areas of knowledge during their first two years, as this provides an opportunity for intellectual exploration as students consider which academic area they would like to focus on for their major. These requirements may be satisfied either through course work or proficiency examinations (which carry no academic credit). In addition to the CLAS general education requirements, all AU students must complete the university-wide requirements for Physical Education and Global Perspectives.

Basic Competencies

Competency requirements may be satisfied through either proficiency examinations, which carry no academic credit, or course work, which does carry academic credit. Students are provided opportunities to continue to hone their skills in writing, quantitative reasoning, and languages beyond these basic requirements through intermediate and advanced level courses offered in the College.

I Written Communication
Each student must demonstrate writing competency through the successful completion of English 102 or an equivalent (as approved by the English Division faculty). Depending on college entrance exam scores, students are placed in the appropriate level writing course. Normally students enroll in English 101 and 102 in their first year in CLAS.

Students with the following scores must take both English 101 and English 102:

SAT Writing	499 or lower
SAT Verbal	539 or lower
ACT-English	25 or lower

Students with the following scores should take English 102:

SAT Writing	500-699
SAT Verbal	540-739
ACT English	26-29

Students with the following scores are exempted from English 101 and 102, having demonstrated sufficient college level writing competency:

SAT Writing	700 or higher
SAT Verbal	740 or higher
ACT English	30 or higher

II Foreign Language
To demonstrate a basic competency in a language other than English, each student must successfully complete the equivalent of the second semester of the first year of a foreign language at the college level. Students may also demonstrate this proficiency through a language placement exam or a challenge exam, arranged through the Division of Modern Languages. Placement exams are offered at the beginning of each semester. Students should consult with the Modern Languages Division for placement exams in languages not offered by Alfred University.

Students are expected to begin undertaking language study no later than their sophomore year and continue each subsequent semester with the language until the requirement is fulfilled. All students are encouraged to go beyond our basic language requirement in order to deepen their knowledge of and fluency in the language.

III Quantitative Reasoning
Students must demonstrate basic competency in quantitative reasoning. The quantitative reasoning requirement is fulfilled by one of the following:

- A score of 630 or higher on the SAT Math
- A score of 28 or higher on the ACT Math
- A score of 3 or higher on the Advanced Placement Exam in either Calculus AB or Calculus BC
- The successful completion of an AU designated quantitative reasoning (QR) course (Attribute 03). The following courses are currently designated as QR courses; the list is updated annually and posted on the Alfred University website.

BIOL 226	Biostatistics
ENVS 205	Environmental Data Analysis
MATH 101	Communicating with Numbers
MATH 102	Mathematics for Early Childhood/Childhood Teachers
MATH 107	Calculus Concepts for the Social Sciences

MATH 151	Calculus I
PHIL 282	Introduction to Logic
POLS/SOCI 230	Introduction to Data Analysis and Statistics
PSYC 220	Psychological Methods and Statistics
SCIE 115	Materials in Society (also applies to "F" lab course requirement)
SCIE 127	Doing Science (also applies to "F" lab course requirement)

Areas of Knowledge

General education requirements for different areas of knowledge provide students with an introduction to different ways of thinking, knowing, and seeing, laying the foundation for a lifetime of inquiry and learning. While many courses are offered in these different academic disciplines, only certain courses in the CLAS curriculum are designated as fulfilling the general education requirement. "Attribute" codes in the on-line course system (Banner) help students search for and identify appropriate courses that fill these specific area requirements.

Degree Requirement (Attribute) Code	**Field**
A	Literature (4 credits required)
B	Philosophy or Religious Studies (4 credits required)
C	The Arts (4 credits required)
D	Historical Studies (4 credits required)
E	Social Sciences (8 credits; 4 credits each from two of the following categories): • Psychology (E1) • Political Science or Economics (E2) • Sociology or Anthropology (E3)
F1 &F2	Natural Sciences (8 credits; at least one of the courses must include a lab)

First -Year Experience Program (FYE)

The College's First-Year Experience program is designed to foster intellectual engagement so that students are able to succeed academically and find a meaningful role for themselves both in the Liberal Arts & Sciences community and as citizens of the world. All first-year students enroll in an FYE course in the fall semester. Each FYE course is taught by a faculty member dedicated to the success of first-year students, who, along with the peer leader associated the course, helps new students engage with the Alfred community and transition to college level learning.

The goals of the FYE program are to:

- Help students produce high-quality college-level work and develop a positive work ethic.
- Encourage students to form "learning communities" in which students share responsibilities and support one another in their academic endeavors.
- Provide first-year students with the opportunity to participate in a small, seminar-style class in which concentrated attention can be paid to each student and close working relationships between students and instructors can develop.
- Encourage students to become fully integrated into the University community by introducing students to and encouraging participation in a wide variety of extracurricular activities.

The FYE program also provides a foundation for the general education curriculum. To that end, all FYE courses, successfully completed, fulfill one of the general education or university requirements.

Transfer Seminar

The CLAS Transfer Seminar, offered each semester, is designed to help transfer students become familiar with and integrated into the Alfred University community. All CLAS transfer students are required to take this seminar, which provides an overview of AU resources and policies.

Majors

In addition to the general education program, all CLAS students must fulfill the requirements for a major to qualify for a bachelor's degree. (Requirements for each major are found elsewhere in the catalog and on the AU website.) A major provides students with an opportunity to delve deeply into the study of a particular subject, developing expertise and critical thinking through sustained and advanced work. At least half of a student's course work toward the major must be completed at Alfred University. Transfer credits toward the major are approved by the chair or director of the particular program in which the major resides.

Students are expected to declare their major by the end of the sophomore year. We advise students to explore various options and become familiar with the requirements for a particular major before filing a major declaration. Students should also discuss their interests and objectives with their academic advisor before declaring a major. In most cases, students have done some previous course work in the discipline before declaring the major. Faculty members are great resources for discussing possible majors. Each February, the College sponsors a Major and Minor Fair showcasing the various areas of study, which allows students the opportunity to talk with faculty members about the requirements for the majors.

All courses required for a major must be completed with grades of "C" or better. Students may also be required to pass a comprehensive examination in the major.

Some majors and pre-professional programs, such as Athletic Training Education and Pre-Health, require specific sequencing of courses and careful planning, with some prerequisite courses to be taken in the freshman year. Students preparing for secondary school teaching in an area related to their major should consult with an Education advisor as well as their major advisor to plan their course of study combining major requirements and education courses.

The following majors are offered by the College of Liberal Arts and Sciences:

Athletic Training
Biology
Chemistry
Communication Studies
Comparative Cultures
Criminal Justice Studies
Early Childhood/Childhood Education
English
Environmental Studies
Foreign Language and Culture Studies
General Science
Geology
Gerontology
Global Studies
History
Interdepartmental Major
Interdisciplinary Art
Mathematics
Philosophy
Physics
Political Science
Psychology
Sociology
Spanish
Theatre

Individually Structured Major (ISM)
The Individually Structured Major offers students the opportunity to structure and declare an independent, multidisciplinary major in cases where the student's plan of study cannot be accommodated by one of the existing majors within the College of Liberal Arts and Sciences. Each individually structured major requires a formal program proposal and subsequent program summary approved by the Dean of the College in consultation with the ISM Faculty Steering. Mature and self-directed students can prosper in this major.

Individually structured majors must be approved by the beginning of a student's junior year. Advising and additional information about proposing an individually structured major is available from the Dean's Office. These special majors are created and supported in consultation with a two or three-member Faculty Advisory Board, chosen by the student. The individual attention received while working with the Advisory Board adds significantly to the value of this unique educational experience.

Employers and graduate schools are impressed by the initiative and accomplishments of these self-directed students and their unique, "custom-designed" academic preparation. Among the wide variety of student-designed programs have been International Environmental Relations; Historic Preservation; Creative Writing and Graphic Design; Religion and Ethnicity; Art History and Performing Arts Management; Media Politics; Organizational Behavior; Art: Museum Studies and Entrepreneurship; Socially Responsible Entrepreneurship; The Business of Art; Biopsychology; Ecological Psychology; Sustainable Agriculture; Art, Language and Culture; Video/Music Communications; and Prosthetic Robotics.

Minors

Students may elect to declare a minor to supplement the major field. A minor allows students the opportunity to broaden their educational experience and may enrich career possibilities. In addition to minors offered by the College of Liberal Arts and Sciences, the minor programs in Alfred University's other colleges and schools are open to Liberal Arts and Sciences students if prerequisites are met.

Minors normally range from 14-24 credit hours. As with the major, all courses used to complete a minor must have grades of "C" or better and at least half of the requirements should be completed at Alfred University. The division chair should be consulted about matters regarding transfer credits for the minor.

Anthropology
Art Education
Arts Management
Astronomy
Biological Anthropology
Biological Illustration
Biology
Chemistry
Communication Studies
Criminal Justice Studies
Cultural Anthropology
Dance
Economics
English: Literature
English: Writing
Environmental Studies
Equestrian Studies
Exercise Science
French
Geology
Gerontology
Global Studies
History
Interdisciplinary Art
Mathematics
Middle/Adolescent Education
Music
Philosophy
Physics
Planetary Science
Political Science
Psychology
Public Law
Religious Studies
Science Policy
Social Science Research
Sociology
Spanish
Theatre
Women's Studies

Pre-Professional Advising

Art Therapy
Law
Medicine and Health Professions

Alfred University provides pre-professional advising programs for students who wish to prepare for the study of art therapy; law; or health professions, including medicine, dentistry, veterinary medicine, and other allied-health programs. Preparation for these graduate professional programs usually involves taking particular, prerequisite courses while an undergraduate. Students may choose to major in anything they wish while taking the prerequisites for these professional programs.

Students with interests in these professional programs should discuss their intentions with their academic advisor and attend workshops and advising hours offered by the faculty advisors for these pre-professional tracks. Depending on the pre-professional track chosen, students may need to start on relevant course work in their first or second year. It takes careful planning to see that both major and pre-professional requirements are completed on schedule. Contact the Dean's Office or consult the AU website for a current list of preprofessional advisors.

Internships

An internship is defined as field or work experience undertaken by a student for academic credit in a setting connecting a student's academic interests to a career opportunity. The CLAS academic units work closely with the Career Development Center staff to support internships for our students.

Some internships involve participating in a formal program such as that sponsored by the State legislature in Albany. Other internships are established through personal, informal or professional contacts between a supervising faculty member, career counselor or the student, and an institution or agency willing to take on the responsibility for supervising an intern in the field setting.

An internship program may be part of a more comprehensive off-campus study program, such as Washington Semester. Internships may be paid or unpaid. Credit will not be given for work experience alone. Any internship experience must involve a formal writing assignment to integrate the student's field experience with his/her academic interests. Student interns are supervised by an academic supervisor who is an Alfred University faculty member and by an on-site supervisor. The academic supervisor has ultimate responsibility for overseeing the internship. Evaluation of a student's performance is made by the academic supervisor in consultation with the on-site supervisor. To earn credit toward the degree, students must register for Internship credit during the semester in which they are undertaking the internship and complete the internship contract they have set in consultation with the faculty supervisor.

Cooperative Programs

Albany Semester - An Internship with the New York Assembly
Interns work in the office of a New York State Assemblyman doing legislative research, responding to constituent inquiries, and studying New York State public policy issues. A stipend helps defray the cost of living in Albany. AU grants 12 credit hours for this excellent first-hand experience in NY State government.

4+1 Master of Business Administration/Liberal Arts/College of Business Program
AU's College of Business offers a 4+1 program for students majoring in Liberal Arts and Sciences. By completing the appropriate courses at the undergraduate level, a student may successfully complete the requirements for a Masters in Business Administration (MBA) at Alfred University in one year after receiving his or her undergraduate degree.

Alfred University/Columbia University Liberal Arts/Engineering Program
This plan enables students to attend the College of Liberal Arts and Sciences for an initial period of three years and the Columbia University School of Engineering and Applied Science for the last two years. Upon program completion, students receive the BA degree from Alfred University and a BS in Engineering from Columbia. Students in this program have the advantage of receiving a broad liberal arts education and a technical education in five years, rather than the longer period that usually would be required if both degrees were obtained separately.

Note: This same combination of BA and BS degrees can also be accomplished in five years on the Alfred University campus between the College of Liberal Arts and Sciences and the Inamori School of Engineering.

Alfred/Duke University Environmental Management Forestry Program
Alfred University participates in a cooperative program with the School of Forestry and Environmental Studies at Duke University through which students can earn a bachelor's degree at Alfred and a master's degree at Duke in a total of five years. Interested students are urged to consult with the program advisor by the beginning of the sophomore year for further details.

Washington Semester - A Cooperative Program with The American University
Upper-class students particularly interested in public policy at the national level have an opportunity to spend one semester in Washington, D.C., in a cooperative program administered by American University. To qualify, a student must have an outstanding academic record and be recommended by the University. This program is coordinated in the Division of Social Sciences. Students in the New York State College of Ceramics are responsible for additional costs. In addition to the major focus on national government, semester programs are available in a variety of options, including economics, journalism, law enforcement, the arts, international business, and foreign policy. Participating students have found that the experiences and contacts gained during their semester in Washington have aided them in obtaining rewarding and challenging positions later.

Major and Minor Requirements

Anthropology

Requirements for the Anthropology minor

ANTH 110	Cultural Anthropology	4
ANTH 120	Human Origins	4

Plus eight additional credit hours of course work in Anthropology and related areas to be chosen in consultation with the Anthropology minor advisor.

Total credit hours 16

Requirements for the minor in Cultural Anthropology

ANTH 110 Plus twelve additional credit hours of course work in Anthropology and related areas to be chosen in consultation with the Anthropology minor advisor.

Total credit hours 16

Arts Management

The Arts Management Minor provides an interdisciplinary approach to the business of art and management of arts organizations. Students have the opportunity to learn and explore the theoretical content and practical skills that engage arts professionals managing individual businesses, serving community arts organizations, and managing not-for-profit arts organizations in the visual, performing, and literary arts. The Arts Management minor is jointly offered by the College of Business, the School of Art and Design, and the College of Liberal Arts and Sciences and is open to all AU students. (See p. 148 for the Arts Management minor requirements.)

Astronomy

Students may take a variety of courses to become acquainted with modern astronomical thought and observational technique. One may prepare for graduate study in astronomy or astrophysics by completing a Physics major and electing additional Astronomy courses in the Astrophysics Concentration.

The John L. Stull Observatory is an unusually well-equipped facility devoted exclusively to the instruction of undergraduate students. Its six domes house a 9 inch refractor, reflectors of 14, 16, 20, and 32 inch apertures (the 32 inch is computer-controlled), two solar telescopes and two commercial 8 inch telescopes. An adjoining classroom building houses a darkroom and auxiliary equipment including a set of CCD electronic cameras and a network of computers for displaying these images.

Requirements for the minor

ASTR 107	Elementary Astronomy Laboratory	2
ASTR 302*	Planetary Science	2
ASTR 303*	Stellar Astronomy	3
ASTR 304*	Galactic Astronomy and Cosmology	4
ASTR 307	Observational Astronomy	2
Total credit hours		**13**

***Note: These courses have prerequisites. See course descriptions.**

Athletic Training

The program offers a major in Athletic Training and a minor in Exercise Science. Students interested in applying for admission to AU's Athletic Training Education Program are required to obtain a minimum of 50 clinical hours observing in the athletic training room under direct supervision of a certified staff athletic trainer (see p. 9 of this catalog for policy for Freshman applicants to the University). The directed observation period is comprised of two semesters. The purpose of the directed observation period is to give the prospective student an opportunity to observe the role and function of a certified athletic trainer in the management of health care problems associated with intercollegiate athletic participation. Students are given an opportunity to observe athletic trainers working in these domains:

- Prevention
- Clinical Evaluation and Diagnosis
- Immediate Care
- Treatment, Rehabilitation and Reconditioning
- Organization and Administration
- Professional Responsibility

The emphasis in clinical directed observation is on the orientation and development of knowledge of the respective roles of Athletic Training personnel, and limited performance and/or direct application of technical skills and knowledge.

It is expected that directed observation students will attend all scheduled in-services and athletic training student meetings, as well as successfully complete the required competencies and proficiencies for first semester athletic training students. Students are also expected to enroll in the Athletic Training Basic Education Program (ATBEP), complete a Technical Standards for Admission form and complete the basic program during their freshman year.

After completing the mandatory directed observation period, the prospective athletic training student may apply for acceptance into the Athletic Training Education Program (ATEP). Application to the ATEP level consists of submission of a résumé, intent to enroll, three letters of recommendation, transcripts, and evidence of successful completion of all requirements of the ATBEP. Interviews with the program faculty are also required. In order to be considered for acceptance into the ATEP the student must:

- have a cumulative grade-point average of 2.50 with a grade-point average of 2.75 or better in the courses included within the ATBEP
- provide proof of current American Red Cross First Aid, CPR and AED certifications or certification as an Emergency Medical Technician.
- provide proof of Hepatitis-B vaccination or declination statement
- complete an Athletic Training Education Program Technical Standards for Admission form
- complete an Athletic Training Education Program Application
- submit three (3) letters of recommendation
- undergo a formal interview with AU ATEP faculty
- completion of 50 verified hours of supervised clinical experience and observation at Alfred University or approved affiliate
- active member of the Alfred University Athletic Training Club

Note: student membership in the National Athletic Trainers' Association is encouraged

Appeals Process for Athletic Training Students

Alfred University and the Division of Athletic Training are committed to the highest principles of academic and personal integrity concerning the application and admissions process of the Athletic Training Education Program. An athletic training student who has met all of the requirements necessary in order for admission into the ATEP may be given provisional admission or denied admission altogether based upon any of the following grounds:

- a cumulative grade-point average lower than 2.50
- a cumulative ATBEP grade-point average lower than 2.75 or a grade below a "C" in any of the ATBEP courses
- incomplete application (missing one or any of the following: letter of application, résumé, letters of recommendation, transcripts
- failure to complete basic athletic training competencies
- lack of a minimum of 50 hours of accepted verified clinical experience
- failure to provide adequate proof of first aid/CPR/AED certification
- failure to provide proof of Hepatitis-B vaccination or declination statement

Provisional Admission

Special circumstances may arise where a student may be admitted provisionally to the Alfred University Athletic Training Education Program. In this instance, students will be given very clear objective criteria, which must be satisfied. This category of admission is only utilized when students are extremely close to meeting a specific admission criterion. Athletic training students admitted on a provisional status will be notified in writing. She/he will be given a specific goal/criteria, which must be met during the succeeding semester in order to maintain their position in the Athletic Training Education Program. During this time, the student must demonstrate continued progress toward the goal and eventual achievement. If the criterion is not met within the allotted time, the athletic training student will be downgraded to non-admission status. This student must then re-apply to the program for re-admission.

Appeals Process

Students not accepted into the ATEP have the right to appeal to the Division of Athletic Training Program Director. It is anticipated that admission to the program by this route will be rare except in extenuating circumstances. A letter of appeal must be submitted no later than one (1) month following denial. It must detail the grounds for appeal. The letter will be reviewed by the Athletic Training Appeals Committee (comprised of the Program Director, full-time Division of Athletic Training faculty/staff and the Dean of the College of Liberal Arts and Sciences) and ruled upon.

A letter regarding the decision of the appeals committee will then be mailed to the student no later than two (2) months following the original denial/non-admission letter. The decision of the Appeals Committee is *final*.

Note: The Division of Athletic Training faculty/staff reserves the right to determine the propriety of grounds for appeal based on the facts presented on a case-to-case basis.

Second-Chance Provision

A student not accepted into the Alfred University ATEP may reapply. This opportunity is intended for those who failed to gain admission on their first attempt. The student must formally submit a request to exercise the second chance provision. This request must be submitted no more than one (1) month after receipt of the denial notification. If not submitted in due time, the student waives the right to second chance provision and must reapply by means of the Admission policy.

The second chance provision consists of one additional semester for the student to demonstrate that he or she is capable of meeting the entrance requirements. The exact requirements to be met will be outlined in the letter of denial. Students will then submit a letter detailing how the deficiencies have been successfully addressed since denial of admission, have a follow-up interview with the Division of Athletic Training faculty/staff and submit two additional support letters of recommendation.

Program Summary for BS in Athletic Training
Complete the Basic Education Program and the Athletic Training Education Program (below), the College of Liberal Arts and Sciences General Education Program, the University Physical Education and Global Perspective Requirements, and enough electives to reach at least 124 credit hours.

Basic Education Program Course Requirements (ATBEP):

ATHT 103	Prevention and Care of Athletic Injuries	4
ATHT 104	Introduction to Clinical Experience	1
ATHT 110	Medical Sciences	2
ATHT 111	Emergency Medicine in Athletic Training	2
ATHT 210	Advanced Athletic Training	3
Total credit hours		**12**

Athletic Training Education Program:

ATHT 201	Clinical Experience in Athletic Training I	1
ATHT 202	Clinical Experience in Athletic Training II	1
ATHT 222	Nutrition for Human Performance and Exercise	
or BIOL 230	Nutrition in Health and Disease	2
ATHT 301	Clinical Experience in Athletic Training III	1
ATHT 302	Clinical Experience in Athletic Training IV	1
ATHT 334	Physical Evaluation of the Lower Extremity	4
ATHT 348	Physical Evaluation of the Upper Extremity	4
ATHT 356	Theory and Techniques of Therapeutic Modalities	
or ATHT 365	Therapeutic Applications I	4
ATHT 367	Theory and Techniques of Therapeutic Exercise	
or ATHT 376	Therapeutic Applications II	4
ATHT 392	Biomechanics	3
ATHT 393	Physiology of Exercise	3
ATHT 401	Clinical Experience in Athletic Training V	1
ATHT 403	Medical Aspect of Athletic Training	1
ATHT 420	Pharmacology	2
ATHT 432	Administrative Aspects of Athletic Training	3
ATHT 459	Research Design in Athletic Training	3
ATHT 485	Clinical Internship in Athletic Training	4
ATHT 495	Current Topics in Athletic Training	2
BIOL 107	Human Anatomy & Physiology/Lab I	4
BIOL 108	Human Anatomy & Physiology/Lab II	4
BIOL 201	Biology I/Lab	4
PHED 218	Weight Training	2
PHED 101	Cross Training	
or PHED 103	Cardiovascular Fitness	2
PSYC 322	Health Psychology	2-4
Total credit hours		**64**

Student Transfer Policy
Freshman or sophomore athletic training students applying for transfer to Alfred University from another institution having prior athletic training clinical experience must also complete the aforementioned criteria for acceptance (ATBEP prerequisites including 100 supervised clinical experience hours). If a student transfers with prior athletic training clinical experience, she/he may petition to have the 100 hour directed observation requirement prorated, accordingly. The candidate must submit a letter of recommendation documenting his/her clinical experience hours from his/her former supervising certified athletic trainer. Once completing the prerequisite courses, the student may apply (following the application process outlined) for admission into the Athletic Training Education Program (ATEP). These prerequisite courses must be taken at Alfred University; therefore, credit for these courses may not transfer from another institution.

Athletic training students who have completed their second year of athletic training courses or beyond at another institution and are applying for admission to Alfred University will not be considered for transfer into the ATEP. The Alfred University Athletic Training Education Program currently does not allow juniors or seniors to transfer into the ATEP.

Academic Requirements
Once a student is formally accepted into the ATEP, he/she must adhere to the following guidelines and policies:

- Students must maintain admission requirements in order to remain in the program. Failure to maintain the published requirements will result in the student being placed on academic probation.
- If placed on academic probation, the student will have one semester to correct deficiencies. If she/he fails to correct deficiencies, the student will be suspended from the program.
- During probation from the ATEP, the student will not be permitted to pursue additional athletic training classes or accumulate additional clinical hours unless given written permission from the Division of Athletic Training Program Director.

Athletic Training Hours Requirements
Upon successful completion of the ATBEP, the athletic training student must complete an additional 900 verified clinical experience hours while occupying a place in the ATEP. The Division of Athletic Training faculty/staff assigns clinical hours according to individual class schedules. Attendance is mandatory for all assigned clinical experiences. Athletic training students are required to obtain a minimum of 50 to 200 hours depending on the level of the clinical experience course enrolled each semester.

Approved Clinical Instructor Assignments
While enrolled in Clinical Experiences I-V the athletic training student will be assigned to an ACI; each ACI is responsible for a specific athletic team. The athletic training student is responsible for attending all scheduled practices and home competitions. Each student will be given the opportunity to obtain hours within the parameters of upper extremity, lower extremity, general medical and equipment intensive environments.

Absences from Assigned Duties
An *Absence from Clinical Assignment* form must be completed by any athletic training student a minimum of three (3) days before a missed practice or competition. The form will be reviewed by the appropriate ACI and returned within 24 hours with a verdict. If the absence is excused, the athletic training student is responsible for finding a qualified athletic training student replacement and notifying the appropriate ACI. If an absence is unexcused, the athletic training student will be subject to the disciplinary policy outlined in the Athletic Training Student Handbook.

Athletic Training Student Evaluations
Athletic training students will be evaluated twofold each semester (mid-term and end-of-semester) by their respective ACI. Self-evaluations will also be completed at this time. The ACI will also complete individual evaluations in each of the six Clinical Experience courses.

Athletic training students enrolled in ATHT 485 - Clinical Internship in Athletic Training, will be evaluated by the Clinical Instructor Supervisor at each site where clinical experience hours are obtained. Likewise, athletic training students will be given the opportunity to evaluate both their ACI and Clinical Instructor Supervisor. The evaluation process is utilized to assess the progress of each student's didactic knowledge and application of both educational competencies and clinical proficiencies. The Clinical Education Coordinator of the Athletic Training Education Program reviews all evaluations with each student.

Professional Organization Membership
Athletic training students are encouraged to enroll in the National Athletic Trainers' Association (NATA) and the New York State Athletic Trainers' Association (NYSATA) by the end of the sophomore year. Only students who have been members for at least one year are eligible to be considered for scholarships offered by these organizations. All ATEP students are encouraged to join the NATA and NYSATA. Membership applications are available from the Athletic Training Education Program Director.

Requirements for the Exercise Science minor
The minor provides students with the ability to address the growing concerns of society about injury prevention, wellness, fitness, and rehabilitation. Additionally, it is designed to prepare students to become certified Strength and Conditioning Specialists recognized by the National Strength and Conditioning Association.

Required Courses:

ATHT 103	Prevention and Care of Athletic Injuries	4
ATHT 111	Emergency Medicine in Athletic Training	2
ATHT 190	Principles of Strength and Reconditioning	2
ATHT 205	Structural Kinesiology	2
ATHT 393	Physiology of Exercise	3
BIOL 107	Human Anatomy and Physiology I	4
BIOL 108	Human Anatomy and Physiology II	4
BIOL 230	Nutrition in Health and Disease	2
Total Credit Hours		**23**

Biology

The study of life is in an exceptionally exciting phase. Discoveries in the life sciences are occurring faster than their implications can be absorbed by society. It is the mission of the Division of Biology to provide a solid, diverse education in the liberal arts and a strong biological foundation for a variety of career interests. Different pathways in the major provide a biological foundation for a variety of career interests including post-graduate study in medicine, dentistry, veterinary medicine or other health-related professions, post-graduate study in numerous biological disciplines from biotechnology to ecology as well as for a number of employment opportunities, including teaching and biological research. The curriculum facilitates double and co-majors with other disciplines and contributes to the overall natural science education serving as background for many career choices. For instance, students in the molecular life sciences will find special opportunities in the Biomedical Materials Engineering Science program in the Inamori School of Engineering, and those with concerns in global and human ecology may participate in the interdisciplinary Environmental Studies Program. Students in other disciplines can complete a minor in Biology or in Biological Illustration.

Course objectives are met through lectures, laboratory and fieldwork, discussions, and seminars. Students are strongly encouraged to become involved in undergraduate research projects and to seek summer and semester internship and study abroad experiences.

Requirements for the major

Each student completes a core of courses and selects a prescribed number of courses from the distribution categories related to his/her personal and career interests. Additional courses in chemistry, mathematics, and physics are required or recommended. All courses taken as part of the Biology major must be passed with a grade of C or better.

Summary of Requirements for the Biology Major:

Biology Core	18
Major Electives	24
Required Chemistry Courses	11-16
Total Credit Hours	**52-57**

Core: Take these six courses

BIOL 201	Biology I	4
BIOL 202	Biology II	4
BIOL 226	Biostatistics	4
BIOL 365	Genetics	4
BIOL 390	Junior Seminar	1
BIOL 490	Biology Research Seminar	1

Choose at least 24 additional credit hours of major electives with at least 4 credits from each of the three distribution categories:

Cell and Molecular: BIOL 302 (General Microbiology); BIOL 362 (Molecular Cell Biology);; BIOL 402 (Immunology); BIOL 404 (Mechanisms of Microbial Pathogenesis); BIOL 420 (Biochemistry: Proteins and Metabolism);

Organisms: BIOL 307 (Anatomy & Physiology: nerves, Muscles, Bones); BIOL 308 (Anatomy & Physiology: Viscera); BIOL 311 (Invertebrate Zoology); BIOL 322 (Botany); BIOL 346 (Animal Nutrition);; BIOL 375 (Comparative Vertebrate Biology); BIO 376 (Animal Physiology)

Ecology and Evolution: BIOL 106 (Field Botany); BIOL 304 (Microbial Ecology); BIOL 305 (Belize and the Caribbean); BIOL 348 (Animal Behavior); BIOL 354 (Ecology); BIOL 356 (Aquatic Ecology); BIOL 358 (Biogeography and Landscape Ecology); BIOL 415 (Genetics and Evolution of Populations); BIOL 425 (Physiological Plant Ecology)

Required related course work includes CHEM 105/106 (General Chemistry) and CHEM 310 or 315/316 (Organic Chemistry). *Recommended* related course work includes Introductory Physics (8 credits) and Math (8 credits). Selection of these courses depends on the student's postgraduate plans and is done in consultation with the faculty advisor.

Preparation for Middle/Adolescent Education

Future science teachers take Core courses (18 credits), distribution electives (24), and required related course work (11-16 credits in chemistry). Students should consult faculty advisors in Biology and Education to select appropriate courses in biology and related disciplines.

Requirements for the Biology minor

A total of 24 credits is required for the minor in Biology: BIOL 201/202 (8 credits), Biology courses selected in consultation with advisor (12), and CHEM 105 (4).

Requirements for the Biological Illustration minor

A total of 24 credits is required for the minor in Biological Illustration: BIOL 201 and 202 (8 credits), one elective course in biology (BIOL307, BIOL311, BIOL 322, or BIOL 375), one drawing course (ART 111 or ART 281,), and two studio art courses (ART or IART).

Requirements for the Biological Anthropology minor

The interdisciplinary minor in Biological Anthropology requires foundation courses in Biology and Anthropology. The minor is intended to complement a major in another discipline. A total of 20 credit hours fulfills the minor. The required courses give students a solid grounding in all areas of biological anthropology. The majority of upper level courses concentrate on genetics, behavior, and evolution.

Required Courses

ANTH 120	Human Origins	4
BIOL 130	Introduction to Human Genetics	4

Electives (Select 12 credit hours):

ANTH 303	Health and Culture	4
ANTH /BIOL 305	Belize and the Caribbean	2
BIOL 375	Comparative Vertebrate Biology	4
BIOL 348	Animal Behavior	4
BIOL 415	Genetics and Evolution of Populations	4
PSYC 351	Human Sexuality	4
SOCI 235	Socialization	4
Total Credit Hours		**20**

Chemistry

Chemistry as pure science attempts to describe and understand the transformations of matter and the physical properties of all substances. As an applied science it provides society with the materials needed for a technological age and the knowledge to assess the costs and benefits of that technology. Because it is a fundamental science concerned with the properties of all substances, its impact is far reaching. A knowledge of chemistry is essential not only to the student of disciplines such as biology, environmental studies, engineering, ceramics, medicine, and forensics, to name a few, but also to the person who wishes to be liberally educated. With many scientifically-based issues facing today's society, some knowledge of chemistry is essential.

The division offers a core major and an American Chemical Society (ACS) approved degree. The core major provides a firm background for entry into the job market as a chemist, for advanced study in the discipline, for advanced study in a related discipline or a foundation for various professional schools such as medicine, dentistry, veterinary medicine, law or library science. It is appropriate for most students wishing to have a double major as well as for students wanting to earn a middle childhood/adolescence education minor. The ACS approved degree requires the core major plus six additional semester credit hours. Students completing the additional credits will be certified to ACS upon graduation and are immediately eligible to join ACS. Students who definitely intend to pursue graduate studies in chemistry or who desire a nationally certified degree should consider the additional course work.

A minor in chemistry is offered. The minor not only provides some breadth (14-15 credits), but also permits the student to tailor his/her studies to complement a major in other fields (5-6 additional credits). For example, a biology major might emphasize organic chemistry whereas a person in ceramic science might focus on physical, inorganic or analytical chemistry.

Requirements for the major

CHEM 105/106	General Chemistry	8
CHEM 315/316	Organic Chemistry	8
CHEM 321	Introduction to Analytical Chemistry	4
CHEM 343/346*	Physical Chemistry I and II	6
CHEM 345	Physical Chemistry Laboratory	1
CHEM 372	Inorganic Chemistry	3
CHEM 374	Inorganic Chemistry Laboratory	1
CHEM 390	Junior Seminar	1
CHEM 423	Instrumental Analysis	3
CHEM 461	Advanced Chemistry Laboratory	2
CHEM 490	Senior Seminar	1
Total credit hours		**38**

***Ceramic Engineering and Materials Science majors who also major in Chemistry may take CEMS 214, 235 and 344 for equivalent content.**

Requirements for the ACS approved major

Above, plus six additional credits. These six credits must include BIOL 420 (Biochemistry: Proteins and Metabolism) and at least two credit hours from CHEM 400, CHEM 414, CHEM 450, CHEM 457, CHEM 462, CHEM 485, CHEM 495, CEMS 334, CEMS 342, CEMS 344, CEMS 349, and CEMS 434. These two credits must also include at least 24 clock hours of laboratory time.

Related Study Required for the Major

MATH 151/152	Calculus I and II	8
PHYS 111 or 125	Physics I	4
PHYS 112 or 126	Physics II	4

For those students who wish to earn the ACS certified degree, BIOL 202 (4 credits) is also required as a prerequisite for BIOL 420.

Requirements for the minor

CHEM 105/106	General Chemistry	8
CHEM 310	Basic Organic Chemistry	
or CHEM 315	Organic Chemistry I	3-4

Plus 8-9 additional credits from the following:
CHEM 316, CHEM 321, CHEM 343*, CHEM 345, CHEM 346*, CHEM 350, CHEM 372, CHEM 374, CHEM 423 and BIOL 420 8-9
Total credit hours 20

***Ceramic Engineering and Materials Science majors who minor in Chemistry may substitute CEMS 235 for CHEM 343 and both CEMS 214 and CEMS 344 for CHEM 346.**

Communication Studies

The Communication Studies major enables students to develop a critical, historical, and practical understanding of human communication as it occurs in a variety of contexts. The core courses examine elements of the process of communication in a program which is grounded in the humanistic tradition and contemporary social science. The elective courses enable students to focus on specific contexts such as media studies or organizational communication.

This plan of study is designed not only for students planning to pursue careers as leaders in fields such as broadcasting, journalism, advertising, and public relations, but also for those who wish to acquire an awareness of general communications principles applicable to many careers. Moreover, since many Communication Studies courses investigate the impact of communication upon society, the major also provides a solid foundation for graduate study in Communications and related disciplines including Law, Business, and the Social Sciences.

As a supplement to their classroom work, students are encouraged to work with the University's FM stereo radio station, WALF, the student newspaper, *Fiat Lux*, and the campus television station, AUTV, as well as to complete an off-campus internship with a communications industry organization.

Requirements for the major

All students must complete a 24 credit hour core consisting of the following courses:

COMM 101	Introduction to Communication Studies	4
COMM 110	Mass Media and American Life	4
COMM 205	Introductory Newswriting and Reporting	4
COMM 301	Broadcasters, Advertisers, and Audiences	4
COMM 309	Persuasion: Reception and Responsibility	4
COMM 410	Communication Ethics	4
Total credit hours		**24**

Additional Requirements

20 credit hours from among any of the following courses (at least 12 hours must be at the 300-400 level; other courses are available subject to the approval of an advisor):

Media Studies Area

COMM 220	Understanding Popular Culture and Media	4
COMM 306	Gender and Communication	4
COMM 401	Technology and Communication	4
COMM 404	Media Criticism	4
COMM 405	Television Criticism	4
COMM 411	Media Law	4
COMM 465	Gender, Race, Class and Media	4
COMM 475	Specialized Reporting	4
ENGL 210	Special Topics in Film	2 or 4
ENGL 233	Film Criticism	4
ENGL 234	Crime in Film	4
ENGL 235	Comedy in Film	4
ENGL 275	Fiction into Film	4
HIST 376	Modern American Culture	4
POLS 220	Perspectives on Political Science	2
POLS 236	Media and Politics	2
POLS 356	Movements	4

Organizational Communication Area

COMM 210	Interpersonal Communication	4
COMM 302	Public Relations Principles	4
COMM 311	Advanced Public Speaking	4
COMM 409	Organizational Communication	4
ECON 201	Introduction to Economics and Markets	4
MGMT 328	Management and Organizational Behavior	3
MKTG 221	Marketing Principles and Management	3
MKTG 452	Marketing Research	3
MKTG 460	Seminar in Marketing	3
MKTG 479	Consumer Behavior	3
MKTG 486	Promotion Strategy	3
MKTG 489	International Marketing	3
PSYC 101	Introduction to Psychology	4
PSYC 210	Communication and Counseling Skills	2
PSYC 220	Psychological Methods and Statistics	4
PSYC 282	Social Psychology	4
PSYC 311	Sensation and Perception	4
PSYC 332	Cognitive Processes	4
PSYC 372	Psychology of Women	4

General Communication Courses

COMM 200/300/400	Special Topics	2-4
COMM 385/485	Internship	1-4
COMM 470	Communication Practicum in Journalism	1-4

Requirements for the minor in Communication Studies

COMM 101	Introduction to Communication Studies	4
COMM 110	Mass Media and American Life	4
COMM 205	Introductory Newswriting and Reporting	4
COMM 301	Broadcasters, Advertisers, and Audiences	4
COMM 309	Persuasion: Reception and Responsibility	4
COMM 410	Communication Ethics	4
Total credit hours		**24**

Comparative Cultures

The Comparative Culture major makes it possible for students to gain an appreciation of cultural pluralism by studying various cultures and elements of culture while acquiring the tools of analysis and interpretation. Students achieve an understanding of the general nature of human culture and religion as well as more specific knowledge of particular societies and/or religious traditions.

The major emphasizes the analytical methodologies of the complementary disciplines of Anthropology and History of Religions, fostering the cross-cultural and/or comparative study of such aspects of culture as myth, social organization, adaptive strategies, gender relations, kinship and descent, religious ritual, oral poetry, and visual and performing arts.

The curriculum includes core components (which should be completed early), elective courses and advanced study of a foreign language. It culminates in a major fieldwork project. Students are strongly encouraged to study for one or two semesters in a foreign culture.

I. Core (10-12 credit hours)

ANTH 110	Cultural Anthropology	4
ANTH 304	Language and Culture	4
RLGS 105	Introduction to World Religions	4

II. Elective Courses (22 credit hours)

Courses from Anthropology, Religious Studiers and Art History of non-Eurocentric traditions. 16 credits must be above 300 level. Up to 8 credits from other disciplines may be substituted (with advisor's approval).

III. Fieldwork Project and Senior Paper (8 credit hours)

GLBS 495	Global Issues Seminar	4

Four additional credit hours including a 2 credit tutorial on methodological and/or hermeneutical issues related to the project.

Total Core Requirements **42**

IV. Language Study (up to 12 credit hours)

(Minimum requirement is proficiency equal to university study through the second year)

Total credit hours **(up to 54)**

Note: RLGS 105, ANTH 110 and two semesters of foreign language (16 credits in all) also fulfill current CLAS General Education requirements.

Elective Courses in Core Disciplines

ANTH 302	The Nacirema
ANTH 303	Health and Culture
ANTH 309	Magic and Religion
ANTH 312	Anthropology of Violence
ARTH 301	African Art I
ARTH 302	African Art II
ARTH 411	Pre-Columbian Art
RLGS 240	Religion in America

RLGS 252	Judaism and Islam
RLGS 254	Birth of the Christian Tradition
RLGS 257	Greek and Roman Myths
RLGS 307	Myth, Ritual, and the Creative Process
RLGS 308	Artists, Shamans and Cosmology
RLGS 359	History of Chinese Thought
RLGS 369	Buddhism
RLGS 374	Myth, Yoga, and Philosophy of India

Criminal Justice Studies

As Criminal Justice Studies majors, students examine types of criminal behavior in terms of environmental influences which foster such behavior, social and governmental efforts at control, and practices developed to effect rehabilitation. In general, students learn the application of social science findings to the problems of criminal behavior. The major also provides for practical experience through academic fieldwork courses that encourage students to apply classroom knowledge to actual situations. Faculty are drawn from the social sciences.

Requirements for the major

CRIM 351	Seminar in Criminal Behavior	4
CRIM 340	Concepts of Penology	4
POLS 232	Judicial Processes	2
POLS 417	American Civil Liberties	2
PSYC 342	Abnormal Psychology	4
SOCI 344	Deviance and Society (Prerequisite: SOCI 110)	4
SOCI 345	Crime and Delinquency (Prerequisite: SOCI 110)	4
Total credit hours		**24**

Electives

The student must select 20 credit hours from the following:

ANTH 312	Anthropology of Violence	4
CRIM 322	Juvenile Justice	2
CRIM 332	Focusing on Police	2
CRIM 400	Special Topics in Criminal Justice	2-4
CRIM 450	Independent Study	1-4
CRIM 470	Field Work in Criminal Justice	4
PHIL 281	Ethics	4
POLS/SOCI 230	Introduction to Data Analysis and Statistics	3
POLS 313	State and Local Politics	4
POLS 316	American Constitutional Law	4
PSYC 282	Social Psychology	4
PSYC 371	The Psychology of Death and Dying	4
SOCI 235	Socialization	4
SOCI 343	Race and Ethnicity	4
SOCI 431	Research Design and Strategies	4

Students may find that knowledge of Spanish is useful in the criminal justice field.

Institutes

In addition to completing the foregoing courses, the Criminal Justice Studies major is required to attend at least two institutes. These are normally offered once a year for a day to a day and a half. They deal with specific issues facing professionals in the criminal justice area.

Requirements for the minor

CRIM 340	Concepts in Penology	4
POLS 110	Introduction to American Politics	4
POLS 232	Judicial Process	2
SOCI 110	Introduction to Sociology	4
SOCI 344	Deviance and Society	4
SOCI 345	Crime and Delinquency	4
Total credit hours		**22**

Dance

Alfred University's Dance Program offers students a rich and rewarding experience in the art of dancing and dance making. It is open to students of all levels, regardless of experience or past training who want to include a dance practice in their academic experience. The Program encourages cross-disciplinary work in collaboration with visual art, sound design, music, performance art, and theatre - drawing from strengths unique and specific to Alfred University.

Those students who want to pursue deeper studies in dance can minor in dance. The dance minor is a composition and performance based program that develops artistry in contemporary, cutting-edge dance and dance theatre. Students can take classes in composition, improvisation, site specific composition, site specific performance, modern dance, ballet, jazz, dance history, repertory, and contact improvisation, as well as special topics classes.

The Marlin and Ginger Miller Dance Residency Program brings nationally acclaimed dance companies, choreographers, and artists to AU, offering phenomenal opportunities for students to work and learn with artists of the highest caliber.

Beyond the classroom, AU has a thriving student dance culture with a variety of dance clubs such as Middle Eastern Dance, Hip Hop, Alfred to Asia, Swing Dance, and Alfred Steppas. Auditions for all productions and performance groups are open to all students, regardless of academic major or experience.

Requirements for the Dance minor:

Core Courses

DANC 120	Fundamentals of Dance	2
DANC 222	Modern I	2
DANC 230	Improvisation/Composition I	3
DANC 211	Dance History	4
DANC 270	Alfred University Dance Theatre (taken twice)	4
DANC 330	Improvisation/Composition II	3

Electives in Dance (select 6 credit hours)

DANC 200	Special Topics	1-4
DANC 221/321	Ballet I and II	2
DANC 223/323	Jazz Dance I and II	2
DANC 224	Contact Improvisation	2
DANC 322	Modern Dance II	2
DANC 340	New and Existing Repertory	3
DANC 450	Independent Study	1-4
Total credit hours		**24**

Note: If DANC 120 is waived because of an equivalent background in dance, the minor requires 22 credit hours.

Economics

The primary objective of the economics minor is to study economic problems, theories, and policies within the context of the liberal arts educational tradition.

Requirements for a minor in Economics:

ECON 201	Introduction to Economics and Markets	4
ECON 202	Principles of Macroeconomics	3
ECON 460	Seminar in Economics	3
Two additional upper division economics courses (ECON 300 and above)		6
Total credit hours		**16**

Education

Housed in the Division of Education are a major in Early Childhood/Childhood Education and a minor in Adolescence Education, Middle Childhood Specialist - Special Subjects. (Refer to the Graduate School Catalog for information on graduate programs offered by the Division of Education.)

Education Major: Early Childhood/Childhood Education
Students completing the program meet the academic requirements of the New York State Education Department for certification in Early Childhood (PK-2 gr.) and Childhood Education (1-6 gr.).

Students who major in Early Childhood/Childhood Education receive an integrated blend of professional education methods coursework and field based opportunities in area schools that enable them to apply theory to classroom situations. These field-based experiences expose students to a diverse number of educational environments.

Students majoring in Early Childhood/Childhood Education must complete coursework in the arts and sciences that is rich in breadth and depth and fulfill requirements in basic competencies and areas of knowledge in the following subjects: written communication, mathematics, computer, literature, foreign language, arts, social science, historical studies and natural science.

Academic Area of Concentration (or Second Major)
Students majoring in Early Childhood/Childhood Education must complete 30 hours in an academic area of concentration or fulfill the requirements of a second major. In either case, students select an academic area that is aligned with the current New York State Learning Standards. Possible academic areas include English, Mathematics, Psychology, Science, and Social Studies (History). Half the coursework in the academic area of concentration must be taken at the advanced (300-400) level.

Prerequisite Courses

EDUC 230	Psychological Foundations of Education
EDUC 231	Social Foundations of Education
MATH 102	Mathematics for Early Childhood/Childhood Teachers
SCIE 127	Doing Science

One additional science course addressing the NYS content learning standards in Science.

Admission to Program
At the end of their sophomore year, students are reviewed for admission into the Early Childhood/Childhood Education program. To be admitted, students must have declared Education as their major and met with their Education advisor to ensure that all prerequisites have been met, they have an overall 2.75 GPA in their liberal arts coursework, and have achieved a 3.0 GPA in the prerequisite education courses (EDUC 230 and EDUC 231).

It is recommended that, each candidate for the program successfully pass the Liberal Arts & Science (LAST) of the New York State Teacher Certification Examinations prior to admittance into the program.

The Education portion of the program starts in the spring semester of the students' junior year, and includes field-based coursework in early childhood/childhood curriculum, orientation, methods of teaching literacy, and integrated methodology of social studies, math, science and technology. The required concurrent field experience in two extended placements take place in area schools and are designed as an opportunity to blend theory with experiential application. The following fall semester students are placed in area schools for two student teaching experiences. Students will need transportation to area school districts for both field placement (spring semester) and student teaching (fall semester) placements.

Concurrent coursework in advanced literacy methodology, and classroom assessment and evaluation strategies during this semester are designed to assist students with instructional planning and to incorporate and to align instruction, curriculum, and assessment with the New York State Learning Standards.

Core Courses

Spring Semester - Junior Year		
EDUC 374	Integrated Methods: Soc Studies/Science/Math/Computer	6
EDUC 375	Early Childhood/Childhood Practicum	3
EDUC 471	Methods of Teaching Literacy	6
EDUC 474	Orientation to the Early Childhood/Childhood Classroom	3
Fall Semester - Senior Year		
EDUC 461	Student Teaching	12
EDUC 472	Competency Skills in Teaching Literacy	3
EDUC 473	Assessment in the Early Childhood/Childhood Classroom	3
Spring Semester - Senior Year		
SPED 456	Human Development: Exceptionality	3

Education Minor: Adolescence Education, Middle Childhood Specialist and Special Subjects: Business and Marketing (birth -12 gr.)
Students completing the program meet the academic requirements of the New York State Education Department for certification in Adolescent Education (7-12 gr.) and Middle Childhood Specialist (5-9 gr.) or Business and Marketing (birth -12 gr.).

Each candidate must complete an academic major in the subject to be taught, together with professional education courses. In addition, a one-year program in the college-level study of a language other than English is required (total of 6 to 8 credit hours). The requirements include a full semester of student teaching.

Students who minor in Education receive an integrated blend of professional education methods coursework and field based opportunities in area schools that enable them to apply theory to classroom situations. These field-based experiences expose students to a diverse number of educational environments.

Students who wish to minor in Education must complete coursework in the arts and sciences that is rich in breadth and depth and fulfill requirements in basic competencies and areas of knowledge in the following subjects: written communication, mathematics, computer, literature, foreign language, arts, social science, historical studies and natural science.

Preparation for a career in Adolescence, Middle Childhood Education combines an academic major in a particular field, such as English or biology, with a Middle Childhood/Adolescence minor in the Division of Education. Adolescence Education, Middle Childhood Specialist subjects include biology, physics, chemistry, earth science, English, French, mathematics, social studies, Spanish and must be enrolled in the College of Liberal Arts and Sciences.

All students completing the program will receive certification in Adolescence Education (7-12). It is possible to receive an additional certification to teach Middle Childhood Education by completing additional coursework.

Students majoring in Business must be enrolled in the College of Business, and minor in Education.

A student preparing to teach in one of these areas should meet with an advisor in the Division of Education to integrate the education course requirements while planning a program of major studies.

Prerequisite Courses

EDUC 230	Psychological Foundations of Education
EDUC 231	Social Foundations of Education

Admission to the Program

To be admitted into this program, applicants must have the recommendation of a faculty member from their major division, together with a 2.75 cumulative GPA and a 3.0 average in EDUC 230 and EDUC 231. In addition, candidates are recommended to take the Liberal Arts and Sciences Test (LAST).

Course Requirements

- Completion of Basic Competencies and Areas of Knowledge required for Liberal Arts and Sciences.
- Completion of academic major in Liberal Arts and Sciences.

Specific Pedagogical Core

EDUC 345	Education Fieldwork	3
EDUC 405	Literacy in the Content Areas	3
EDUC 413	Using Literature in Intermediate/Adolescent Classrooms	3
EDUC 460	Seminar in Teaching and Professional Development	3
EDUC 462	Student Teaching for Middle/Adolescent Certification	12
EDUC 489	Current Teaching Methods: Middle Childhood/ Adolescence Subjects	3

Middle Childhood Extension Certificate

Those students who wish to complete additional certification in Middle Childhood must complete all coursework required for the Adolescence certification. Additionally, students must complete EDUC 488 - Current Teaching Methods: Middle Childhood Subjects.

Education Minor: Art (PreK -12 gr.)
Students completing the program meet the academic requirements of the New York State Education Department for certification in Visual Arts (PreK-12). Each candidate must complete a major in Art, together with professional education courses. The requirements include a full semester of student teaching.

Students who minor in Education receive an integrated blend of professional education methods coursework and field based opportunities in area schools that enable them to apply theory to classroom situations. These field-based experiences expose students to a diverse number of educational environments.

Students who wish to minor in Education must complete coursework in the arts and sciences that is rich in breadth and depth and fulfill requirements in basic competencies and areas of knowledge in the following subjects: written communication, mathematics, computer, literature, foreign language, arts, social science, historical studies and natural science.

Preparation for a career in Adolescence, Middle Childhood Education combines an academic major in a particular field, such as English or biology, with a Middle Childhood/Adolescence minor in the Division of Education. Adolescence Education, Middle Childhood Specialist subjects include biology, physics, chemistry, earth science, English, French, mathematics, social studies, Spanish and must be enrolled in the College of Liberal Arts and Sciences..

All students completing the program will receive certification in Adolescence Education (7-12). It is possible to receive an additional certification to teach Middle Childhood Education by completing additional coursework.

Students must be enrolled in the College of Liberal Arts and Sciences and be majoring in Interdisciplinary Art, or be enrolled in the Bachelor of Fine Arts degree program in the School of Art and Design, and minor in Education.

A student preparing to teach in one of these areas should meet with an advisor in the Division of Education to integrate the education course requirements while planning a program of major studies.

Prerequisite Courses

EDUC 230	Psychological Foundations of Education
EDUC 231	Social Foundations of Education

Admission to the Program
To be admitted into this program, applicants must have the recommendation of a faculty member from their major division, together with a 2.75 cumulative GPA and a 3.0 average in EDUC 230 and EDUC 231. In addition, candidates are recommended to take the Liberal Arts and Sciences Test (LAST).

Course Requirements
- Completion of Basic Competencies and Areas of Knowledge required for Liberal Arts and Sciences.
- Completion of academic major in Liberal Arts and Sciences.

Specific Pedagogical Core (Senior Year 2 or 3 Semesters)

EDUC 345	Education Fieldwork	3
EDUC 405	Literacy in the Content Areas	3
EDUC 413	Using Literature in Intermediate/Adolescent Classrooms	3
EDUC 460	Seminar in Teaching and Professional Development	3
EDUC 463	Student Teaching-Art Education	12
EDUC 491	Methods and Curriculum in Art Education	3

Additional Program Requirements for ALL programs leading to New York State Teacher Certification

Examinations:
**Liberal Arts and Science Test (LAST):*
It is recommended that program candidates successfully pass the Liberal Arts and Science Test prior to entering their field placement semester.
**Assessment of Teaching Skills-Written (ATS-W):*
It is recommended that program candidates take the Assessment of Teaching Skills-Written (ATS-W) of the NY State Teacher Certification Examinations during or after field placement, prior to student teaching.
**Content Specialty Test (CST):*
Program candidates are recommended to take the appropriate Content Specialty Test (CST) for their certification area during their student teaching semester.

New York State Mandated Workshops:
All students must complete a state required workshop in Child Abuse Recognition and Reporting (CARR) and Safe Schools Against Violence in Education (SAVE). Both mandated workshops are offered to students through the Division of Education.

Fingerprinting/Background Check:
Program candidates applying for Initial (first) certification must complete the fingerprinting/background check packet. Fingerprinting packets can be obtained through the Division of Education office.

English

The study of English fosters critical thought and imaginative insight. It also heightens an awareness and appreciation of the power, beauty, and passion of the written word. English majors learn to examine the world and their relationships to it though courses which emphasize analysis and the ways in which literature reflects culture. Through the experience of writing essays, stories, poems, and plays, students gain knowledge of the subtleties of language and respect for the exigencies of form. Class discussions increase students' opportunity, in Thoreau's words, to "live deliberately"; critical and creative writing promote their fluency with ideas and language.

Requirements for the major
The major serves both the student who regards the study of English as a vital component of a liberal arts education and the future critic and writer.
English majors graduate to pursue careers in teaching, writing, advertising, public relations, publishing, college administration, business, and related fields, or they go on to graduate schools in literature, writing, communications, journalism, library science, law, and business.

English majors are encouraged to assume responsibility for the direction of their education by developing a course of study based on their goals. From the numerous courses offered (see listings in the back of catalog), a total of 40 semester hours in English is required.

Students must complete 12 hours of study at the 200 level, as follows: ENGL 201, The Language of Literary Art; ENGL 223, Survey of British Literature; ENGL 241, Survey of American Literature. A minimum of 28 additional hours must be drawn from literature and writing courses at the 300 level.

Of the 40 required hours, up to half (20 hours) may be taken in creative writing. ENGL 496, English Honors Thesis, is required only for those students seeking Honors in English and may be counted toward the minimum of 40 hours required for the major. ENGL 450, Independent Study, may not be counted toward the minimum of 40 hours required for the major.

ENGL 102, Writing II, is strongly recommended as a foundation course for all English majors. The Division of English also strongly recommends that English majors complete the intermediate level of a foreign language. Students may count one literature course (300 level or above) taken in a foreign language towards the English major.

Prerequisites: ENGL 201, The Language of Literary Art, for advanced writing courses, or another 200 level creative writing course; either ENGL 223, Survey of British Literature, or ENGL 241, Survey of American Literature, for advanced literature courses.
Total Credit Hours: 40

Note: Students who are not majors or minors in English but who wish to take English courses must fulfill the prerequisite of a 200 level literature course before taking an advanced literature course or a 200 level creative writing course before taking an advanced creative writing course.

Minors

The English Division offers minors in Literature and in Writing. ENGL 102, Writing II, is strongly recommended as a foundation course for both minors. ENGL 223, Survey of British Literature, or ENGL 241, Survey of American Literature, is also strongly recommended for writing minors.

Requirements for a minor in Literature:

20 credits of course work, 8 of which must include ENGL 223, Survey of British Literature, or ENGL 241, Survey of American Literature, and one other 200 level literature course. 12 additional credits must be selected from 300 level courses in literature.
Prerequisites: One 200 level literature course must be completed before beginning 300-level courses.
Total Credit Hours: 20
Note: ENGL 450, Independent Study, cannot be counted toward the minor in Literature.

Requirements for a minor in Writing:

20 credits of course work, 8 of which must include ENGL 201, The Language of Literary Art, and one other 200 level writing course. 12 additional credits must be selected from 300-level courses in writing.
Prerequisites: A 200 level creative writing course is a prerequisite for all advanced creative writing courses. Majors and Minors must also take ENGL 201, The Language of Literary Art
Total Credit Hours: 20
Note: ENGL 450, Independent Study, cannot be counted toward the minor in Writing.

Environmental Studies

Since technological advances in our society have been accompanied by many life-threatening effects upon our physical surroundings, it has become a good citizen's responsibility to understand major environmental concepts. Some of us will pursue careers on behalf of the environment, trying to determine our species' suitable place within it.
The Environmental Studies major offers a multidisciplinary background and encourages looking at environmental problems from several points of view. Environmental projects and field experiences augment classroom learning. Faculty members are drawn from biology, geology, geography, mathematics, psychology, chemistry, political science, economics, and sociology.

Students have the option of choosing an Environmental Studies major with either a natural science, social science, or environmental science emphasis. Environmental Studies majors strongly interested in environmental careers or graduate training are encouraged to also complete requirements for a full major or minor in a traditional academic discipline. Many of the same courses will meet the requirements of both majors.

Students can earn a master's degree in environmental management from Duke University through a cooperative 5-year plan between Duke and Alfred University. See the program advisor for more information.

Requirements for the major – Natural Science Emphasis

A. Core requirements

ENVS 101	Environmental Studies I – Natural Science	4
ENVS 102	Environmental Studies II – Social Science	4
ENVS 205	Environmental Data Analysis	4
ENVS 240	Environmental Research Procedures I	3
ENVS 241	Environmental Research Procedures II	3
ENVS 360	Junior Seminar	1
ENVS 440	Environmental Research Planning	2
ENVS 490	Senior Seminar	2
ENVS 499	Senior Year Project	2
ENVS 415	Natural Resource Management	2
POLS 214	Politics and Environment	2

B. Breadth requirements

Two courses from among the following:

BIOL 201	Biology I	4
CHEM 105	General Chemistry I	4
ENVS 220	Introduction to Geographic Information Systems	4
GEOL 101	This Dynamic Earth	4
PHYS 111	Introductory General Physics I	4
or PHYS 125	Physics I	4

Two courses from among the following:

ANTH 110	Cultural Anthropology	4
ECON 201	Introduction to Economics and Markets	4
ECON 312	Environmental Economics	3
ENGL 293	Writers Gone Wild: Literature and the Environment	4
ENVS 204	Environmental History	2
ENVS 201	Environmentalism	2
ENVS 245	Spirituality and the Environment	2-4

ENVS 415	Natural Resources Management	3
PHIL 281	Ethics	4
POLS 411	Bureaucracy	4

C. Natural Science emphasis electives

Three courses (at least 11 credits) from among those listed, with no more than two 100-level courses.

BIOL 202	Biology II	4
BIOL 311	Invertebrate Zoology	4
BIOL 322	Botany	4
BIOL 345	Vertebrate Natural History	4
BIOL 354	Ecology	4
BIOL 356	Aquatic Ecology	4
CHEM 106	General Chemistry II	4
CHEM 310	Basic Organic Chemistry	3
or CHEM 315	Organic Chemistry I	4
CHEM 316	Organic Chemistry II	4
CHEM 321	Introduction to Analytical Chemistry	4
ENVS 320	Advanced GIS Applications	4
ENVS 351	Environmental Biogeochemistry	4
GEOL 201	Surficial Geology	4
GEOL 301	Structural Geology	4
GEOL 307	Stratigraphy and Sedimentation	4
GEOL 464	Hydrogeology	4
PHYS 112	Introductory General Physics II	4
or PHYS 126	Physics II	4

Requirements for the major – Social Science Emphasis

A. Core requirements

ENVS 101	Environmental Studies I – Natural Science	4
ENVS 102	Environmental Studies II – Social Science	4
ENVS 205	Environmental Data Analysis	4
or POLS/SOCI 230	Introductory Data Analysis & Statistics	4
or PSYC 220	Psychological Methods & Statistics	4
or BUSI 113	Business Statistics	4
ENVS 240	Environmental Research Procedures I	3
ENVS 241	Environmental Research Procedures II	3
ENVS 360	Junior Seminar	1
ENVS 440	Environmental Research Planning	2
ENVS 490	Senior Seminar	2
ENVS 499	Senior Year Project	2
ENVS 415	Natural Resources Management	2
POLS 214	Politics and Environment	2

B. Breadth requirements

Two courses from among the following:

BIOL 201	Biology I	4
CHEM 105	General Chemistry I	4
ENVS 220	Introduction to Geographic Information Systems	4
GEOL 101	This Dynamic Earth	4
PHYS 111	Introductory General Physics I	4
or PHYS 125	Physics I	4

C. Social Science emphasis electives
16 credits from among the following:

ANTH 110	Cultural Anthropology	4
ECON 201	Introduction to Economics and Markets	4
ECON 202	Principles of Macroeconomics	3
ECON 312	Environmental Economics	3
ENGL 293	Writers Gone Wild: Literature and the Environment	4
ENVS 201	Environmentalism	2
ENVS 204	Environmental History	2
ENVS 245	Spirituality and the Environment	2-4
ENVS 320	Advanced GIS Applications	4
HIST 308	Americans and Their Environment	4
PHIL 281	Ethics	4
POLS 313	State and Local Politics	4
POLS 411	Bureaucracy	4
PSYC 282	Social Psychology	4

Requirements for the major – Environmental Science Track

A. Core requirements

ENVS 101	Environmental Studies I – Natural Science	4
ENVS 102	Environmental Studies II – Social Science	4
ENVS 205	Environmental Data Analysis	4
ENVS 240	Environmental Research Procedures I	3
ENVS 241	Environmental Research Procedures II	3
ENVS 360	Junior Seminar	1
ENVS 440	Environmental Research Planning	2
ENVS 490	Senior Seminar	2
ENVS 499	Senior Year Project	2
MATH 151	Calculus I	4

B. Breadth requirements
Twenty credit hours from the following:

BIOL 201	Biology I	4
CHEM 105	General Chemistry I	4
CHEM 106	General Chemistry II	4
ENVS 220	Introduction to Geographic Information Systems	4
GEOL 101	This Dynamic Earth	4
MATH 152	Calculus II	4
PHYS 111	Introductory General Physics I	4
or PHYS 125	Physics I	4
PHYS 112	Introductory General Physics II	4
or PHYS 126	Physics II	4

C. Depth requirements
Three Courses (totaling at least 11 credit hours) from the following:

BIOL 322	Botany	4
BIOL 354	Ecology	4
BIOL 356	Aquatic Ecology	4
CHEM 310	Basic Organic Chemistry	3
or CHEM 315	Organic Chemistry	4
CHEM 321	Introduction to Analytical Chemistry	4
ENVS 320	Advanced GIS Applications	4
ENVS 351	Environmental Biogeochemistry	4
GEOL 201	Surficial Geology	4

GEOL 464	Hydrogeology	4
ENVS 415	Natural Resources Management	2

Requirements for the Environmental Studies minor

ENVS 101	Environmental Studies I – Natural Science	4
ENVS 102	Environmental Studies II – Social Science	4
ENVS 240	Environmental Research Procedures I	3
ENVS 241	Environmental Research Procedures II	3

Plus, 8 credits of electives, selected by the student and minor advisor, chosen from the lists of natural science and social science electives (see above) and integrated to meet the student's objectives in environmental study.

Total credit hours **22**

Note: Nearby Alfred State College offers a number of applied courses in a variety of environmental areas. Selections from among these offerings may be taken for transfer credit at Alfred University. Advisors can assist in such course selections; in some cases these may substitute for courses listed above.

Equestrian Studies

Students can combine a major from any division of the University with a minor in Equestrian Studies in order to meet their own personal goals and vision. For example combining Equestrian Studies with Business Administration enables a student to run a training operation, open a tack shop or other small equine-related business, or be able to handle accounting, marketing or sales for a large breeding operation. Students who choose to combine Psychology and Equestrian Studies can work towards certification in equine-assisted therapy. The Alfred University Equestrian Program is designed to offer students the opportunity to define their own needs and goals, and then create a career plan that assists them in achieving it.

Requirements for the minor in Equestrian Studies

The minor requires a total of 16 credit hours. Choose at least 8 credits of theory courses and 4 credits of practical (activity) courses. The remaining 4 credits may be selected from either category.

Theory Courses

EQUS 201	The Art and Theory of Equitation
EQUS 205	Introduction to Equine Science
EQUS 210	Methods of Teaching English Riding
EQUS 211	Methods of Teaching Western Riding
EQUS 215	Equine Management
EQUS 216	Horse Show Management
EQUS 218	Judging Horse Shows
EQUS 220	History of the Horse
EQUS 223	Hunter and Jumper Course Design
EQUS 225	Equine Nutrition
EQUS 200	Special Topics (theory/classroom topics)

Activity Courses (2 credit hours each)

EQUS 100	Special Topics (activity courses for PE credit)
EQUS 101-104	English Riding, Levels I, II, III, and IV
EQUS 105	Introduction to Dressage
EQUS 107	Combined Training
EQUS 110-113	Western Riding, Levels I, II, III, and IV
EQUS 115	Dressage II

EQUS 118	Introduction to Reining	
EQUS 120-121	Draft Horse Driving I and II	
EQUS 125	Introduction to Show Jumping	

General Science

Requirements for the major

MATH 151	Calculus I	4
MATH 152	Calculus II	4
a total of 18 credit hours in either biology, chemistry, geology or physics		18
plus a total of eight credit hours in each of the other three sciences from the following list:		
Biology		
BIOL 201	Biology I	4
BIOL 202	Biology II	4
Chemistry		
CHEM 105	General Chemistry I	4
CHEM 106	General Chemistry II	4
Geology		
GEOL 101	Physical Geology	4
Physics		
PHYS 111	Introductory General Physics I	4
PHYS 112	Introductory General Physics II	4
Total credit hours		**50**

Geology

Studying geology helps students to gain an appreciation for their planet, its history, and the processes which operate within it. Students may select courses for enjoyment, choose courses in conjunction with other studies, or take courses in preparation for careers in geology. The major provides a background useful for employment or further studies in geology or a related field such as environmental studies, physical geography, planning, engineering, law or business. A geology major includes an introductory level course; required courses in structural geology, mineralogy and petrology; advanced studies; and field experience.

Requirements for the major

Choose one introductory course from:		4
GEOL 101	This Dynamic Earth	
GEOL 103	Earthquakes and Volcanoes	
GEOL 106	Elementary Oceanography	
GEOL 109	The Physical World	
and take the following four courses:		
GEOL 201	Surficial Geology	4
GEOL 301	Structural Geology	4
GEOL 302	Mineralogy and Petrology	4
GEOL 464	Hydrogeology	
or ENVS 351	Environmental Biogeochemistry	4
Total Credit Hours		**20**

General Geology Track:
In addition to the above 20 credit hours required for all tracks, take:

ENVS 205	Environmental Data Analysis	4
GEOL 304	Field Methods (or other approved field camp)*	2
and 8 credits selected from the following:		
ENVS 220	Introduction to Geographic Information Systems	4
ENVS 320	Advanced GIS Applications	4
ENVS 351	Environmental Biogeochemistry (if not used above)	4
GEOL 307	Stratigraphy and Sedimentation	4
GEOL 408	Tectonics	4
GEOL 414	Geophysics	4
GEOL 440	Glacial Geology	4
GEOL 464	Hydrogeology (if not used above)	4
Total Credit Hours for General Track Geology Major		**34**

Planetary Science Track
In addition to the above 20 credit hours required for all tracks, take:

ASTR 302	Planetary Science	2
CHEM 105	General Chemistry I	4
CHEM 106	General Chemistry II	4
MATH 151	Calculus I	4
MATH 152	Calculus II	4
and 8 credits selected from the following:		
CEMS 235	Thermodynamics of Materials	4
CEMS 251	Mechanics of Materials	3
CHEM 343	Physical Chemistry I	3
CHEM 346	Physical Chemistry II	3
GEOL 408	Tectonics	4
GEOL 414	Geophysics	4
GEOL 464	Hydrogeology (if not used above)	4
Total Credit Hours for Planetary Science Track Geology Major		**46**

Earth Science Education Track
In addition to the above 20 credit hours required for all tracks, take:

MATH 102	Mathematics for Early Childhood/Childhood Teachers	4
GEOL 304	Field Methods (or other approved field camp)*	2
and 8 credits selected from the following:		
ASTR 103	Introductory Astronomy	4
ASTR 107	Elementary Astronomy Lab	2
ENVS 220	Introduction to Geographic Information Systems	4
ENVS 320	Advanced GIS Applications	4
ENVS 351	Environmental Biogeochemistry (if not used above)	4
GEOL 307	Stratigraphy and Sedimentation	4
GEOL 408	Tectonics	4
GEOL 414	Geophysics	4
GEOL 464	Hydrogeology (if not used above)	4
SCIE 110	Weather Elements	2
Total Credit Hours for Earth Science Education Track Geology Major		**34**

***Other field activities may be used to fulfill this requirement. Arrangements should be made prior to the end of the junior year.**

Requirements for the minor

A Geology minor may be obtained by completing (with grades of "C" or better), one 100-level geology course and 16 credit hours of upper level geology courses. These may include CEMS 214 or CEMS 215. Total credit hours required: 20.

Gerontology

We are already feeling the impact upon our society of the rapidly increasing number of people sixty-five and older. In the long run it will probably be as great a change as the previous shift of population from rural to urban centers. How we should prepare to meet the needs of this growing number of older citizens is a crucial concern.

The gerontology major and minor offer an interdisciplinary approach to understanding the aging process and the new problems society is facing with the aged. The student majoring in gerontology studies psychological, social, political, biological, and long-term health care aspects of aging.

The major also provides for the application of classroom knowledge to real-life situations through a supervised internship. Participating faculty members are drawn from psychology, biology, sociology and political science.

Requirements for the major

Complete all of the following:		
BIOL 119	Physiology of Aging	4
GERO 118	Introduction to Adult Development and Aging	4
GERO 429	Cognition and Aging	2
GERO 450	Independent Study	2
GERO 485	Gerontology Internship	4
POLS 355	Public Policy	4
PSYC 210	Communication and Counseling Skills	2
PSYC 371	The Psychology of Death and Dying	4
SOCI 253	Social Welfare Institutions	2
Select one course from each of these two groups:		
GERO 300	Special Topics in Gerontology	2
GERO 497	Senior Seminar in Gerontology	2
PSYC 220	Psychological Methods and Statistics	4
SOCI 230	Intro to Data Analysis and Statistics	4
Total credit hours		**36**

Requirements for the minor

Complete all of the following:		
GERO 118	Introduction to Adult Development and Aging	4
GERO 429	Cognition and Aging	2
GERO 300	Special Topics in Gerontology	
or GERO 497	Senior Seminar in Gerontology	2
GERO 485	Gerontology Internship	4
Select 8 credit hours from the following:		
BIOL 119	Physiology of Aging	
GERO 450	Independent Study	2-4
POLS 355	Public Policy	
PSYC 210	Communication and Counseling Skills	
PSYC 322	Health Psychology	2-4
PSYC 371	The Psychology of Death and Dying	2-4
SOCI 253	Social Welfare Institutions	
Total credit hours		**20**

Global Studies

The goal of the Global Studies program is to increase understanding not only of the variety and complexity of modem human patterns, grounded in particular environments, from sub-cultures and ethnic groupings to nation-states, but also of their connections and interactions, and of their consequences. To accomplish this, the major includes a required introduction to Global Studies and Intercultural Communication, a broad selection of core courses in contemporary global issues across the curriculum and a capstone global issues seminar emphasizing original research based on study abroad experience. Students have a choice of three tracks: General Global Studies; International Relations; or International Business.

Requirements for the major

Foundation Courses (Required)

Modern Languages: second year competency		4
Study Abroad: one or two semesters recommended		
OCST 301	Study Abroad Preparation and Review	2

Core Courses:

ANTH 110	Cultural Anthropology	4
ECON 202	Principles of Macroeconomics	3
GLBS 101	Intro to Global Studies and Intercultural Communication	4
GLBS 495	Global Issues Seminar	4
HIST 107	The World in the 20th Century	4
POLS 271	World Politics	4

Complete one of three tracks:

1. General Global Studies Track: Choose 16 elective credits from at least two of the Categories 1-6, including at least 2 courses at the 300 or 400 level.

2. International Relations Track: Choose 16 elective credits from the Categories 1, 2, 3, and 4, including at least 2 courses at the 300 or 400 level.

3. International Business Track: Choose 15 elective credits from Category 3, including at least 2 courses at the 300 or 400 level.

Categories of Electives

1. History

HIST 111	Modern Western History
HIST 151	The Rise and Fall of Iberia, 1450-1950
HIST 300	Topics in History (upon approval by Director of GS program)
HIST 301	America in War during the 20th Century
HIST 302	The Vietnam War
HIST 315	Nineteenth-Century Europe
HIST 316	Twentieth Century Europe
HIST 322	Churchill, Stalin, Roosevelt, Hitler
HIST 371	American Diplomacy
HIST 372	America as a World Power, 1898-Present
HIST 383	Nazi Holocaust
HIST 387	Modern France, 1815-Present

2. Political Science

POLS 251	European Politics
POLS 252	Asian Politics
POLS 261	Political Development in the Third World
POLS 282	Latin American Politics
POLS 200/300/400	Special Topics (upon approval)

3. Economics and Business

ECON 201	Introduction to Economics and Markets
ECON 202	Principles of Macroeconomics
FIN 458	International Financial Management
BUSI 457	International Business
MKTG 489	International Marketing
ECON/BUSI/ FIN 200/300/4000	Special Topics (upon approval)

4. Cultural Anthropology/Interdisciplinary Studies

ANTH 303	Health and Culture
ANTH 304	Language and Culture
ANTH 309	Magic and Religion
ANTH 312	Violence and Culture
ANTH 320	The Islamic World
ANTH 470	Field Work
ANTH 200/300400	Special Topics in Anthropology
FREN 210	Global Perspectives: Paris
FREN 316	Contemporary French Culture
FREN 313	French-Speaking Africa
GRMN 316	German History and Culture
WMST 200/300/400	Special Topics (upon approval)

5 Art/Literature/Communications

ARTH 121	Wild Spirits and Divine Kings
ARTH 123	Art of China
ARTH 124	Native American Arts: Spirited Materials and Technologies
ARTH 301-302	African Art I and II
ARTH 363	Ceramics and Cultural Identity: Global Traditions & Innovations
ARTH 490	Issues in Non-Western Art Seminar
COMM 200/300/400	Special Topics (upon approval)
ENGL 251	World Literature I
ENGL 252	Contemporary World Literature
ENGL 381	International Women Writers
FREN 310	Reading French Texts
FREN 312	French Literature II
GRMN 313	German Literature II
IART 200, 300	Topics (upon approval)
MUSC 211	World Music
SPAN 312	Peninsular Culture and Literature II: 19th - 20th Century
SPAN 316	Latin American Culture and Literature II
SPAN 400	Topics in Hispanic Literature
SPAN 402	Readings in Modem Latin American Literature
THEA 210	The Performing Arts: A Global Perspective

F. Philosophy and Religion

RLGS 105	Introduction to World Religions
RLGS 252	Judaism and Islam
RLGS 265	Asian Religions: India, China, Japan
RLGS 305	Comparative Mythology
RLGS 307	Myth, Ritual, and the Creative Process
RLGS 308	Artists, Shaman, and Cosmology
RLGS 359	History of Chinese Thought
RLGS 369	Buddhism
RLGS 374	Myth, Yoga, and Philosophy of India
Total credit hours	**44-45**

Global Studies Minor

Foundation Courses:
Modern Languages: second year competency required
Study Abroad: at least one semester recommended

Core course:		
GLBS 101	Intro to Global Studies and Intercultural Communication	4
Electives:		8
After consultation with the Global Studies advisor/program director, choose 2 of these Global Studies core courses:		
ANTH 110	Cultural Anthropology	
HIST 107	The World in the 20th Century	
POLS 271	World Politics	
Plus 8 credits at the 300 or 400 level from the Global Studies electives		8
Total credit hours		**20**

History

"Bunk," Henry Ford called history. "A pack of tricks we play on the dead," said the French writer Voltaire. And yet we all know that a society's understanding of what it is and what it wants to be can be grounded only upon an understanding of what it has been. Our history shapes our identity.

Alfred University's history program offers a thorough grounding in not only American society, but European and some non-Western societies as well. It covers eras of war and peace, reaction and revolution, and approaches the past comprehensively by analyzing political, cultural, social, intellectual and military development.

Attention is given to the needs of both the student who regards historical study as a vital component of a general liberal arts education and the student who plans to become a professional historian. Among recent graduates are lawyers, people in business, professional historians, legislative aides, teachers and civil servants.

Requirements for the major

From the numerous courses offered (see listings in back of catalog) a total of 34 credit hours in history is required. Of these hours, 26 must be drawn from the 300 or 400 level, and the student must complete eight hours in American and 8 hours in non-American history at the 300 or 400 level.
Total credit hours **34**

Requirements for the minor

The minor in history requires completion of two General Education history courses, plus 12 credits of history at the 300 or 400 level.
Total credit hours **20**

Note: Historians and other faculty in the Division of Human Studies are responsible for Historical Reflections, a journal of intellectual and cultural history published three times a year.

Interdepartmental Major

The Interdepartmental Major offers students flexibility in arranging a program to suit their individual interests, aspirations, and abilities.

The program is especially appropriate for a student with definite academic objectives which do not fit into other regular programs, or when a student's objectives can be met through a broad, general course of studies. Students selecting this program need to work closely with their faculty advisors to be sure their appropriate professional and career goals are met.

In addition to the other college degree requirements, students in this major select an additional 40 credit hours from those disciplines covered by the General Education Program's Areas of Knowledge (see p. 90), including at least four credit hours from each of the six areas. In selecting this total of 40 credit hours, students are not limited to the 100 - 200 level courses. Students are also required to complete 24 credit hours of academic course work at the 300 level or above. All courses to be counted in the major must have a grade of C or better.

Interdisciplinary Art

The major in Interdisciplinary Art, leading to the BA degree in the College of Liberal Arts and Sciences, combines studio work in the arts with studies in art history, art theory and criticism, and cultural studies. The program draws faculty from the College of Liberal Arts & Sciences and from the School of Art & Design in the NYS College of Ceramics.

Interdisciplinary Art majors develop technical and conceptual skills in the visual arts through studio work, while also learning how philosophical and historical perspectives can deepen and enrich the process and purposes of artmaking. The BA program is distinguished from the BFA program in the School of Art and Design by its emphasis on the cultural setting of the arts, its stress on questions of interpretation, its broad grounding in the general education program of the College of Liberal Arts and Sciences, and its interdisciplinary ties to the Divisions of Human Studies and Performing Arts. There is no portfolio requirement for admission to the Interdisciplinary Art program.

The student who wishes to prepare for a career in art therapy or in art education should consult an Advisor in the Interdisciplinary Art major for a proper selection of courses in Psychology or in Education. Recent graduates have opened their own studios, are working in museums and galleries, teaching art in secondary schools, and have entered graduate programs in the areas of art, art therapy and art conservation.

Requirements for the major:
Core requirements

IART 101-104	Interdisciplinary Art I-IV	16
PHIL 283	Philosophy of the Arts I	4
ARTH 100-level	Art History	6
IART 460	Interdisciplinary Art Seminar	4
Total core requirements		**30**

In addition to the core requirements, students must complete one of the three concentrations below:

I Visual Arts Concentration

Visual studio electives (12 must be 300 level)	24
Theory elective	4
Art History elective	4

II Art History and Theory Concentration

Art History electives	16
Theory electives	8
Additional Art History/Theory electives	8
or 8 studio credits, with permission of advisor	

III Performance Concentration

1. Studio Electives in THEA, DANC, MUSC, ART*	24
2. Theory Elective*	7-8
Total credit hours for the Major	**61-62**

***Studio and Theory Elective: Should be chosen in consultation with advisor to form a unified curriculum in Performance. In Music, only 100 level courses count toward requirement.**

Requirements for the Interdisciplinary Art minor

ARTH	Art History electives	6
PHIL 283	Philosophy of the Arts I	4
ART/IART	Studio Art electives	12
Total credit hours		**22**

Studio Electives:
Students may select from: IART 101, IART 102*, IART 103*, IART 104*, ART 111, ART 121, ART 133, ART 151.
***Each of these courses has a pre-requisite.**

Mathematics

The mathematics program serves a variety of purposes:

- maintaining a vigorous and flexible program for mathematics majors
- providing the necessary mathematical foundations for engineering and science students
- offering an introduction to modern quantitative methods for students of management, economics, and the social sciences

The mathematics major gives the student a sound foundation in modern mathematics and its applications. The major is quite flexible, allowing for emphasis on pure or applied mathematics. In recent years mathematics majors have found excellent placement in a number of fields, including actuarial, computer applications and Ph.D. study.

Requirements for the major

MATH 151	Calculus I	4
MATH 152	Calculus II	4
MATH 253	Calculus III	4
MATH 281	Problem Solving through Problems	4
MATH 271	Differential Equations	3
MATH 371	Linear Algebra	4
MATH 481	Modern Algebra	4
MATH 491	Advanced Calculus	4
plus 6 credit hours in mathematics courses numbered above 240.		
Total credit hours		**37**

Most students follow one of the following three options:

Business Option
The Business Option is for students preparing for a mathematics-oriented career in the business world. This option emphasizes statistical and decision-making techniques. Students are encouraged to take various business courses as electives, along with the following mathematics courses:

MATH 351	Introduction to Operations Research	4
MATH 381	Mathematical Statistics	3
MATH 421	Numerical Mathematics	4

Scientific Option
The Scientific Option emphasizes the application of mathematics to the physical sciences. Interested students are advised to take science courses, such as physics, as electives, as well as the following mathematics courses:

MATH 381	Mathematical Statistics	3
MATH 401	Advanced Engineering Mathematics	4
MATH 421	Numerical Mathematics	4

Middle Childhood/Adolescence Education Option
This option is for students who plan a middle school or high school teaching career. In addition to the required Education program, students must take:

MATH 381	Mathematical Statistics	3
MATH 461	Geometry	4

Requirements for the minor
The minor in mathematics requires 22 credit hours of mathematics courses numbered 151 and above. It must include MATH 253 and at least one of these courses: MATH 351, MATH 371, MATH 401, MATH 481, MATH 491, MATH 421 and at least one other MATH course numbered 300 or above. Courses should be selected in consultation with the mathematics minor advisor.

Total credit hours	**22**

Modern Languages

An increasing number of careers demand proficiency in a second language. More students are choosing to study modern languages for professional enhancement every year. Others select foreign language study to broaden their intellectual horizons, to enjoy the literature of other countries and times, or to be able to travel with greater independence. Students in the College of Liberal Arts and Sciences are required to successfully complete the second semester of the first year of a foreign language or pass the placement exam. Students who plan to seek certification as foreign language teachers should consult the chair of the Education Division.

The Modern Languages Division offers majors in Foreign Language and Culture Studies (concentration in French) and in Spanish as well as minors in French and Spanish.

Foreign Language and Culture Studies with a Concentration in French
Foreign Language and Culture Studies with a concentration in French is an interdisciplinary major that requires 16 credits of upper-level French courses, an intermediate level in a second foreign language, and selection of courses in related fields such as French and Francophone history, art history, global studies or linguistics.

Requirements for the major

Students must take at least 20 credits taught in French. At least 20 credits for the major must be taken on the Alfred University campus.

Core course		
FREN 302	Advanced French Grammar and Composition I	
Major level French courses		
(FREN 202 or above or prior-approval by advisor)		16
Second Foreign Language		
(Minimum of 8 credits at the 200-level or above)		8
Elective courses in related fields		12
Total Credit Hours		**40**

Note: All courses taken abroad or in affiliated fields (e.g. history, art history, or linguistics) must be pre-approved by the major advisor. Additional courses in French or another foreign language may count as electives.

Students majoring in Foreign Language and Culture Studies are encouraged to pursue some independent study and to spend at least a semester in a French language Study Abroad program.

Spanish

The Modern Languages Program offers a Spanish major giving students a proficiency in speaking, listening, reading, and writing. Through a core or requirements, Spanish majors acquire basic knowledge in three areas: Hispanic language, culture, and literature. Beyond this core, students are offered a series of elective courses allowing them to expand their knowledge in all three of the areas or to specialize in one.

Majors in Spanish decide to use their language proficiency in business, government service, teaching, or community services. Study abroad is strongly recommended for both majors and minors. The Study Abroad Office on campus will help students find a suitable program.

Requirements for the major in Spanish

(Prerequisites: SPAN 101, 102, 201, 202 or equivalent)

Required Courses		
SPAN 301	Advanced Conversation and Composition	4
SPAN 311	Peninsular Culture and Literature I	4
SPAN 312	Peninsular Culture and Literature II	4
SPAN 315	Latin American Culture and Literature I	4
SPAN 316	Latin American Culture and Literature II	4
SPAN 360	Literary Theory Seminar	4
Elective Courses (choose 12 credit hours):		
SPAN 400	Topics in Hispanic Literature	4
SPAN 402	Readings in Modern Latin American Literature	4
SPAN 404	Latinos/as in the United States	4
SPAN 450	Independent Study	1-4
Total credit hours		**36**

Plus, Spanish majors must complete a capstone exam given by the division.

It is expected that Spanish majors will pursue some independent study. Although not strictly required.

Requirements for the minor in French
(Prerequisites: FREN 101, 102, 201, 202 or equivalent)
Students wishing to minor in French take three required courses (FREN 301, FREN 302, FREN 310) for a total of 12 credit hours. They then select a minimum of 8 credit hours from the major level elective courses.

Total credit hours		**20**

Requirements for the minor in Spanish
(Prerequisites: SPAN 101, 102, 201, or equivalent)

SPAN 301	Advanced Conversation and Composition	4
SPAN 311	Peninsular Culture and Literature I	4
or SPAN 312	Peninsular Culture and Literature II	
SPAN 315	Latin American Culture and Literature I	4
or SPAN 316	Latin American Culture and Literature II	
SPAN 360	Literary Theory Seminar	4
Choose 4 credit hours from:		*4*
LING 120	Introduction to Linguistics	
SPAN 202	Spanish IV	
Or any of the Elective Courses listed above (SPAN 400, 402, 404, or 450)		
Total credit hours		**20**

Music

All AU students have many opportunities for musical study and performance, regardless of degree, major, or minor. In addition to introductory music theory and appreciation, students can take classes in piano, voice, strings and woodwinds and/or study privately in voice or a variety of instruments including carillon. Students have unlimited access to fine pianos and practice rooms. String, woodwind and brass instruments are available for a modest rental fee.

Numerous vocal and instrumental ensembles, large and small, abound at AU, providing students with a wide range of opportunities for performance. Most ensembles are open to all students. Select groups require auditions. Students also may choose to participate in smaller chamber groups.

The Division of Performing Arts offers a Music Minor.

Requirements for the Music minor

MUSC 110 Music Appreciation	4
MUSC 120 Music Theory I	4
MUSC 130 Class Piano I	2
MUSC 131 Class Piano II	2
MUSC 271-279 Music Ensembles	4
MUSC 101-108; 301-308 Private Lessons (on primary instrument or voice)	4

Note: Technique classes such as Beginning Voice, MUSC 132, may be substituted for one semester of private lesson.

Select 4 credit hours from:

MUSC 200 Special Topics		1-4
MUSC 211 World Music		4
MUSC 212	American Music	4
MUSC 213	Intro to Jazz	4
MUSC 220	Music Theory II	4
Total credit hours		**24**

Philosophy

Does the scientific view of the world mean that free will is an illusion? Can you ever really know anything for certain? What's the difference between knowing something and just believing it? Does reality in any way resemble the way it appears to us through our senses? Is religious belief rational? Why do we expect the future to resemble the past? What makes one society better or more just than another society? What makes life meaningful? These are a sample of the important and compelling questions that philosophy students engage.

The philosophy program acquaints students with the history of ideas, with classical and contemporary philosophical debates, and with methods of philosophical analysis. A student who graduates with a major in philosophy should be knowledgeable about the history of Western thought, have some acquaintance with non-Western thinking, be skilled in the analysis of arguments and texts, and be able to understand contemporary issues in their broader historical, intellectual, and cultural contexts. Philosophy asks questions that are foundational to other disciplines and philosophy students are encouraged to take interdisciplinary work.

Philosophy majors can pursue careers in any field requiring well-developed analytical and communication skills, including government, business and service professions. Philosophy is also excellent preparation for further studies in graduate and professional schools. Our recent philosophy graduates are pursuing careers in medicine, law, philosophy, teaching, politics and policy, and performance art.

Requirements for the major

Students choose one of two tracks:

General Philosophy Track

Required Courses: 12 credits

PHIL 282	Introduction to Logic	4
Choose 8 credits from the following courses:		8
PHIL 311	Greek Philosophy	
PHIL 312	Modern Philosophy	
PHIL 313	19th Century Philosophy	
PHIL 314	20th Century Philosophy	

(4 credits in selected "Topics" courses may be substituted with permission of the advisor.)

Elective Courses: 20 credits

PHIL	Philosophy Electives	
	(12 credits must be above 300 level)	20
Total credit hours		**32**

Philosophy of Religions Track

Required Courses: 12 credits

PHIL 281	Ethics	
or PHIL 382	Philosophy of Religion	4
Choose 8 credits from the following courses:		8
PHIL 311	Greek Philosophy	
PHIL 312	Modern Philosophy	
PHIL 313	19th Century Philosophy	
PHIL 314	20th Century Philosophy	

(4 credits from selected "Topics" courses may be substituted with permission of the advisor.)

Elective Courses: 24 credits

PHIL	Philosophy Electives	
	(4 credits must be above 300 level)	8
RLGS	Religious Studies Electives	
	(8 credits must be above 300 level)	16
Total credit hours		**36**

Requirements for the minor

The philosophy minor consists of 20 credits in philosophy. A minimum of 12 credits must be at the 300 level or above. With permission of the minor advisor, a student may substitute up to 4 credits of the 20 from a related discipline.

Physics

The physics major is for students who enjoy investigating the world around them by applying quantitative methods and fundamental physical principles.

Appropriate preparation includes, if possible, high school physics and four years of high school mathematics. The major is an intensive and individualized program in both theoretical and experimental physics, designed to give each student sound preparation for continuing exploration of pure or applied physics in either industry or graduate school.

To ensure maximum flexibility in meeting student goals, four concentrations have been devised, well-suited to the mix of experiences available at Alfred University. All four make use of the core of courses outlined below but differ in the course choices in the physics electives portion of the major. While allowing students to concentrate in one area of physics, this plan makes it easier for them to complete a major in physics while also majoring in one of several engineering curricula.

Concentrations are as follows:
General Physics – The concentration that allows maximum breadth in students' physics preparation.
Astrophysics – This concentration makes use of the University's considerable astronomy resources through the Stull Observatory and our astronomy minor.
Solid State Physics – A concentration taking advantage of the materials-related offerings of the Inamori School of Engineering in the NYS College of Ceramics. Students interested in earning two degrees: a BA in Physics and a BS in Materials Science and Engineering will find this option most attractive. (See special requirements for "Double Degrees on p. 58.)
Mechanical Systems – This concentration includes the offerings in fluid mechanics, thermodynamics, heat transfer, and vibrating systems of AU's Mechanical Engineering program. It is particularly appropriate for students seeking two degrees: a BA in physics and a BS in Mechanical Engineering. (See special requirements for "Double Degrees on p. 58.)

In addition to these concentrations, we encourage students interested in other physics-related disciplines to discuss the possibilities of combining those interests with our major program.

Core Requirements for the major

First and Second Years:

PHYS 125	Physics I	4
PHYS 126	Physics II	4

PHYS 325	Elementary Optics	2
PHYS 326	Elementary Modern Physics	2

Third and Fourth years:

PHYS 341	Advanced Physics Laboratory	2
PHYS 401	Quantum Physics	4
PHYS 421	Statistical and Thermal Physics	4
PHYS 423	Advanced Mechanics	4
PHYS 424	Advanced Electricity and Magnetism	4

Plus a minimum of eight credit hours from one of the four concentrations:

General Physics concentration – 8 credits from among:
Any of the courses outlined in the other concentrations, with no more than four credits from any one concentration.

Astrophysics concentration – 8 credits from among:

ASTR 302	Planetary Science	2
ASTR 303	Stellar Astronomy	3
ASTR 304	Galactic Astronomy and Cosmology	4
ASTR 307	Observational Astronomy	2

Solid State Physics concentration – 8 credits from among:

CEMS 344	Electrical, Magnetic, and Optical Properties	3
CEMS 347	Spectroscopy	2
CEMS 349	X-ray Characterization	2
CEMS 501	Solid State Physics	3

Mechanical Systems concentration – 8 credits from among:

MECH 321	Thermodynamics II	3
MECH 324	Fluid Mechanics I	3
MECH 415	Mechanical Vibrations I	3
MECH 424	Fluid Mechanics II	3

Total credit hours **38**

Requirements for the minor

Physics courses: PHYS 125 Physics I, PHYS 126 Physics II, PHYS 325 Elementary Optics, PHYS 326 Elementary Modern Physics and 8 hours of 300 and/or 400 level courses in physics (4 hours may be taken in astronomy).

Note: Since 300 and 400 level physics courses are only offered in alternate years, careful scheduling is necessary. PHYS 125, 126, 325 and 326 should be completed by the end of the sophomore year.

Political Science

The Political Science major attracts students who want to achieve a basic understanding of political processes. Courses in other disciplines can be chosen to complement an individual's particular orientation as a Political Science major. In addition to providing preparation for graduate study, this program is useful background for those intending to enter government service, legal study, business, teaching, or journalism. The minor requirements are structured to give students a general understanding of the discipline, allowing enough flexibility for particular needs and interests.

Requirements for the major

POLS 110	Introduction to American Politics	4
POLS 220	Perspectives on Political Science	2
POLS 230	Introduction to Data Analysis	4

At least one course from each of the following three groups:

American Politics:		
POLS 313	State and Local Politics	4
POLS 318	The Presidency	4
POLS 331	Parties and Elections	4
POLS 411	Bureaucracy	4
Political Thought:		
POLS 120	Great Issues in Politics	4
POLS 340	Classical Political Theory	4
POLS 341	Modern Political Theory	4
POLS 346	American Political Thought	4
Comparative and International Politics:		
POLS 251	European Politics	4
POLS 253	Dictatorship and Democracy	4
POLS 271	World Politics	4
POLS 282	Latin American Politics	4
plus 14 additional credit hours in Political Science		
Total credit hours		**36**

Requirements for the minor in Political Science

POLS 110	Introduction to American Politics	4
POLS 120	Great Issues in Politics	
or POLS 271	World Politics	4
POLS 220	Perspectives on Political Science	2
plus ten additional hours in Political Science		
Total credit hours		**20**

Requirements for the minor in Public Law

POLS 110	Introduction to American Politics	4
POLS 232	Judicial Processes	2
POLS 316	Constitutional Law	4
POLS 417	American Civil Liberties	2
plus one course from the following:		
POLS 242	Approaches to Law	4
SOCI 345	Crime and Delinquency (Prerequisite SOCI 110)	4
Total credit hours		**14-16**
(plus four prerequisite credit hours if the student chooses SOCI 345)		

Psychology

The psychology program provides majors with an opportunity to pursue their educational and career goals, and also provides essential courses about human behavior for students majoring in other fields. Many courses stressing the scientific and applied nature of the field are offered every semester. Opportunities for hands-on experience in practicum, research, and independent study courses are readily available. The student who decides to major in Psychology has four program options:

The *General Psychology Option* encourages breadth of study and allows flexibility in course selection. For students who wish to have a comprehensive exposure to the discipline, it provides a general knowledge of human behavior and psychological functioning that is useful in many types of careers.

The *Clinical/Counseling Psychology Option* is for students who wish to have a career in the human services. This option offers basic counseling and clinical theory, supervised applied skills training and internship experience and prepares students for employment with various agencies or for graduate study.

The *Experimental Psychology Option* emphasizes the scientific aspects of psychology, including theory, research methodology, statistical and laboratory skills. The program prepares students for Ph.D. study, and/or careers in primary or applied research (e.g., government or industrial research labs).

The *Child Psychology Option* is for students interested in the social and cognitive development of children from infancy through adolescence. The program includes a supervised experience working with children, either conducting research or applying counseling skills. This option prepares students for graduate study or employment in child-related fields.

Requirements for the major
Option 1: General Psychology

Required courses:		
PSYC 101	Introduction to Psychology	4
PSYC 220	Psychological Methods and Statistics	4
PSYC 230	Psychological Research and Design 1	2
PSYC 330	Neuropsychology	4
PSYC 497	Senior Seminar	4
One course from the following:		
PSYC 251	Principles of Learning and Behavior Modification	4
PSYC 311	Sensation and Perception	4
PSYC 332	Cognitive Processes	4
Two courses from the following (limit – one Developmental course):		
PSYC 118	Introduction to Adult Development and Aging	4
PSYC 261	Cognitive Development	4
PSYC 262	Social Development	4
PSYC 282	Social Psychology	4
PSYC 341	Theories of Personality	4
plus electives in Psychology to equal a total of 38 credit hours		
Total credit hours		**38**

Option 2: Clinical/Counseling Psychology

Required courses:		
PSYC 101	Introduction to Psychology	4
PSYC 210	Communication and Counseling Skills	2
PSYC 220	Psychological Methods and Statistics	4
PSYC 230	Psychological Research and Design 1	2
PSYC 330	Neuropsychology	4
PSYC 341	Theories of Personality	4
PSYC 342	Abnormal Psychology	4
PSYC 491	Clinical Procedures	4
PSYC 492	Clinical Practicum	4
PSYC 497	Senior Seminar	4

One course from the following:		
PSYC 118	Introduction to Adult Development and Aging	4
PSYC 261	Cognitive Development	4
PSYC 262	Social Development	4
One course from the following:		
PSYC 251	Principles of Learning and Behavior Modification	4
PSYC 311	Sensation and Perception	4
PSYC 332	Cognitive Processes	4
Total credit hours		**42**

Option 3: Scientific Experimental Psychology

Required Courses:

PSYC 101	Introduction to Psychology	4
PSYC 220	Psychological Methods and Statistics	4
PSYC 230	Psychological Research and Design 1	2
PSYC 330	Neuropsychology	4
PSYC 411	Psychological Research and Design II	4
PSYC 497	Senior Seminar	4
Two courses from the following:		
PSYC 251	Principles of Learning and Behavior Modification	4
PSYC 311	Sensation and Perception	4
PSYC 332	Cognitive Processes	4
Two courses from the following (limited to one Developmental course)		
PSYC 118	Introduction to Adult Development and Aging	4
PSYC 261	Cognitive Development	4
PSYC 262	Social Development	4
PSYC 282	Social Psychology	4
PSYC 341	Theories of Personality	4
Six credit hours from the following:		
PSYC 352	Research Techniques	2-4
PSYC 450	Independent Study	2-6
Total credit hours		**42**

Option 4: Child Psychology

Required Courses:

PSYC 101	Introduction to Psychology	4
PSYC 220	Psychological Methods and Statistics	4
PSYC 230	Psychological Research and Design 1	2
PSYC 261	Cognitive Development	4
PSYC 262	Social Development	4
PSYC 320	Parenting Seminar	2
PSYC 330	Neuropsychology	4
PSYC 497	Senior Seminar	4
One course from the following:		
PSYC 282	Social Psychology	4
PSYC 341	Theories of Personality	4
One course from the following:		
PSYC 251	Principles of Learning and Behavior Modification	4
PSYC 311	Sensation and Perception	4
PSYC 332	Cognitive Processes	4
One course from the following:		
PSYC 471	Child Psychopathology	3
PSYC 472	Child Interventions	3

Four credits from the following:		
PSYC 352	Research Techniques in Child Psychology	2-4
PSYC 485	Practicum	2-4
PSYC 492	Clinical Practicum (at an appropriate site)	4
Total credit hours		**41**

Requirements for the minor

Required Core:		
PSYC 101	Introduction to Psychology	4
PSYC 220	Psychological Methods and Statistics	4
Content Group I (one course)		
PSYC 251	Principles of Learning & Behavior Modification	4
PSYC 311	Sensation and Perception	4
PSYC 330	Neuropsychology	4
PSYC 332	Cognitive Processes	4
Content Group II (one course)		
PSYC 118	Introduction to Adult Development and Aging	4
PSYC 261	Cognitive Development	4
PSYC 262	Social Development	4
PSYC 282	Social Psychology	4
PSYC 341	Theories of Personality	4
PSYC 342	Abnormal Psychology	4
Electives in Psychology (eight credits required)		
Total credit hours		**24***

***Note: eight hours must be at the 300 or 400 level**

Religious Studies

The Religious Studies minor allows students to gain new intellectual perspectives on their own religions, those of other cultures, and the nature of religion in general. Courses in both the Eastern and Western traditions and in comparative topics explore the religious experience of various peoples by examining the many ways that men and women have expressed their fundamental intuitions about themselves and their universe. Studying religions helps students to discover more about themselves and about the complex international world.

The study of religions is inherently interdisciplinary and includes such matters as the philosophical ideas of Augustine and Nagarjuna; the moral values of Confucius, Gandhi, and Martin Luther King; religious communities such as the Buddhist sangha and the Rev. Jim Jones' Peoples Temple; artistic accomplishments such as the cathedral at Chartres and Tibetan mandalas; myths such as the Zuni creation account and the Mahabharata; and rituals such as the Jewish Passover and the Ghost Dance of the American Indian.

Because religious beliefs, rituals and values bear upon all aspects of human life, the study of religion complements majors in many areas, such as literature, history, philosophy, the arts, education, and the social sciences. The study of religion also contributes a great deal to careers in the humanities and social sciences, and also enhances career opportunities in such areas as education, journalism, communications, international affairs, business, social work, counseling, the health professions, and, of course, the religious professions.

Requirements for the minor in Religious Studies
The minor consists of 20 credit hours, distributed as follows:
One course in the Western religious traditions, one course in the non-Western religious traditions and 12 additional credits.

Students may substitute up to four elective credit hours in Philosophy, History, Anthropology, English, Psychology, or Sociology courses closely related to Religious Studies in content or methodology. Substitutions must be approved by the advisor.

Science Policy

The minor in Science Policy provides a policy component for students majoring in engineering or science. This is especially important today given the role government plays in terms of both supporting and regulating business. Science policy minors must be majors in either an engineering field or in chemistry, biology, physics, or environmental studies.

Required courses for the minor:

POLS 110	American Politics	4
POLS 355	Public Policy	4
POLS 411	Bureaucracy	4
Experiential Capstone Project*		2-4
Total Credit Hours		**14-16**

***To be determined under advisement**

Sociology

The sociological method makes possible the systematic comparison of data from varied types of groups, societies, cultures and institutions. In this effort the student of sociology endeavors to formulate generalizations about the nature and causes of human social behavior.

As vocational preparation, the study of sociology provides an understanding of interpersonal and intergroup relationships. Sociology majors at AU go on to careers in such areas as social work, law, public health, business, and social research.

Requirements for the major

Core Area

SOCI 110	Introduction to Sociology	4
SOCI 230	Introduction to Data Analysis and Statistics	4
SOCI 420	Social Theory: A Survey	4
SOCI 431	Research Design and Strategies	4
Electives		20
Total credit hours		**36**

These Anthropology courses may be counted as major electives:

ANTH 302	The Nacirema	4
ANTH 303	Health and Culture	4
ANTH 304	Language and Culture	4
ANTH 309	Magic and Religion: An Anthropological Perspective	4
ANTH 312	Anthropology of Violence	4

Requirements for the minor in Social Science Research

SOCI 110	Introduction to Sociology	4
SOCI/POLS 230	Introduction to Data Analysis and Statistics	4
SOCI 431	Research Design and Strategies	4
SOCI/POLS 475	Data Analysis Lab	4
Electives		
Select 6 credit hours from among the following:		
POLS 220	Perspectives on Political Science	4
SOCI 400	Special topics (with permission of minor advisor)	1-4
Total credit hours		**22**

Requirements for the minor in Sociology

SOCI 110	Introduction to Sociology	4
SOCI 420	Social Theory: A Survey	4
SOCI 431	Research Design and Strategies	4
Plus eight additional credit hours		8
Total credit hours		**20**

Theatre

All students, regardless of academic major, are enthusiastically encouraged to participate in faculty and student directed productions and to take Theatre courses. Performance opportunities and production options abound for those pursuing a Theatre degree. As well-rounded practitioners of theatre, majors are actively encouraged and expected to participate in all aspects of the annual main-stage productions in addition to course requirements. Opportunities are available in acting, all areas of design (scenic, lighting, costume, sound, props), stage management, construction, scenic painting, directing and producing. Theatre majors are prepared to move into a broad range of theatre-related occupations or graduate school, with emphases in performance, design and technical areas.

Requirements for the Theatre major

Core Requirements: (29-31 credits)

THEA 110	Introduction to Theatre	4
THEA 120	Technical Theatre	
or THEA 220	Principles of Theatrical and Performance Design	4
THEA 212	From Page to Stage: Script Analysis	4
THEA 240	Acting I	4
THEA 311	Theatre History I	4
THEA 312	Theatre History II	4
THEA 430	Directing I	3
THEA 431	Directing II	3
or THEA 495	Senior Project	2-4

Electives in Theatre: (12 credits)

THEA 200/300/400	Special Topics	1-4
THEA/ENGL 205	The Play's the Thing!-Playwriting	4
THEA 210	The Performing Arts: A Global Perspective	4
THEA/WMST 211	Women in Theatre	3
THEA 221	Costume Construction	3
THEA 222	Stage Makeup	2
THEA 230	Stage Management Fundamentals	2
THEA 242	Performance Lab	3
THEA 270	Play Production	1-4
THEA 320	Scene Design	3

THEA 321	Lighting Design	3
THEA 322	Stage Costume Design	3
THEA 323	Stage Sound	2
THEA 340	Acting II	3
THEA 350	Independent Study	1-4
THEA 385	Internship in Theatre	2-4
THEA 431	Directing II	3
THEA 440	Acting III	3
THEA 470	Advanced Projects in Theatrical Design and Technology	1-4
THEA 490	Senior Seminar	1
THEA 495	Senior Project	2-4
Related Fields: (6 Credits)		
ART 111	Introduction to Drawing	4
ART 121	Introduction to Sculpture	4
ART 133	Basic Black and White Photography	4
ARTH 100-level	(introductory Art History)	2
DANC 120	Fundamentals of Dance	2
DANC-technique	(DANC 221, 222, 223, 321, 322, 323)	2
DANC 230, 330	Improvisation/Composition I, II	3
DANC 270	Alfred University Dance Theatre	2
DANC 311	Dance History	4
ENGL 225	Shakespeare in Cinema	2 or 4
ENGL 311	Shakespeare's Comedies and Histories	4
ENGL 312	Shakespeare's Tragedies	4
ENGL 372	Dramatis Personae	4
MUSC 100-108	Private Lessons	1
MUSC 110	Music Appreciation	4
MUSC 120	Music Theory I	4
MUSC 130-139	Voice, Piano, Strings Classes	2
MUSC 270-279	Music Ensembles	2
MUSC 301-308	Private Lessons, Advanced	2
PHIL 283	Philosophy of the Arts I	4
RLGS 307	Myth, Ritual and the Creative Process	4
RLGS 308	Artists, Shamans and Cosmology	4
(other courses may be considered; must be approved by the Division Chair)		
Total credit hours required for major		**47-49**

A Theatre minor is also available for those students who wish to major in another field, yet devote serious effort to their development as theatre artists.

Requirements for the Theatre minor

Core requirements (15-16 credit hours)

THEA 110	Introduction to Theatre	
or THEA 210	The Performing Arts-A Global Perspective	4
THEA 130	From Page to Stage: Script Analysis	4
THEA 270/370	Play Production	4
Choose one of the following:		
THEA 311	Theatre History I	4
THEA 312	Theatre History II	4
THEA 430	Directing I	3

Additional requirements (11 credit hours)

Choose one of the following:		
THEA 120	Technical Theatre	4
THEA 221	Costume Construction	4

THEA 240	Acting I	4
THEA 220	Principles of Theatrical and Performance Design	3
THEA 230	Stage Management Fundamentals	2
THEA 242	Performance Lab	3
Choose one of the following: (some courses may have pre-requisites)		
THEA 320	Scene Design	3
THEA 322	Costume Design	3
THEA 321	Lighting Design	3
THEA 340	Acting II	3
THEA 430	Directing I	3
THEA 431	Directing II	3
THEA 311	Theatre History I	4
THEA 312	Theatre History II	4
THEA 470	Advanced Projects in Theatrical Design and Technology	3-4
Choose additional theatre courses to satisfy minimum credit hours required		
Total credit hours required for minor		**(minimum) 26**

Women's Studies

The interdisciplinary Women's Studies minor examines scholarship and research relating to women and to their special contributions.

The objectives of the minor are to provide a theoretical and practical structure within which to study issues of concern for women; to promote an understanding of the historical and biosocial contexts which shape our awareness of womanhood; and to encourage independent reading and study.

The Women's Studies minor is supportive of various majors. Students are invited to complete a minor in Women's Studies or to select courses of particular interest. All program courses can be used as electives and many count toward a major in traditional disciplines. Participating faculty are drawn from throughout the entire university.

Requirements for the minor

Required Core

WMST 101	Women in Society	4
WMST 450	Independent Study	2

Elective Courses

Choose 12 or more credits from at least two groups (I, II, III, IV)

I: Humanities

English		
WMST 218	Autobiography	2 or 4
WMST 254	Women Writers	2 or 4
WMST 256	Multicultural Literature	2 or 4
WMST 308	Women Writers in the Middle Ages	4
WMST 381	International Women Writers	4
History		
WMST 324	Gay American History	4
WMST 374	American Women: History and Herstory	4
Philosophy		
WMST 303	Women, Knowledge, and Reality	2-4

II: Social Sciences

Political Science		
WMST 246	Sex and the Body Politic	4
Psychology		
WMST 372	Psychology of Women	4
Sociology		
WMST 253	Social Welfare Institutions	2
WMST 346	Sociology of Sex and Gender	4
WMST 348	Sociology of Families	4

III: Fine and Performing Arts

Fine Arts		
WMST 382	Women in Art	4
Performing Arts		
WMST 211	Women in Theatre	3

IV: Women's Studies

WMST 450	Independent Study	1-4
WMST 470	Alphadelphian -Women's Studies Service	2
WMST 485	Internship	1-4

New York State College of Ceramics

The College

The New York State College of Ceramics at Alfred University was established April 11, 1900 as The New York State School of Clay-working and Ceramics at Alfred University. When legislation was enacted creating the State University of New York (1948), the College became one of what are now five statutory units of the SUNY enterprise, with the Ceramics College continuing to be operated by Alfred University on behalf of the SUNY Board of Trustees. As a state-supported unit of Alfred University, students, faculty and staff gain the benefits of both a high quality, small university environment and a high quality, public higher education system. Students benefit from a state-supported tuition rate.

Programs and Schools

The College of Ceramics is comprised of: the School of Art and Design, four programs within the Inamori School of Engineering (Ceramic Engineering, Glass Engineering Science, Materials Science and Engineering, and Biomedical Materials Engineering Science), and the S.R. Scholes Library. Two additional engineering programs (electrical and mechanical engineering) are part of the Inamori School of Engineering, but are not state-supported; they are non-statutory programs.

The College's academic programs lead to the B.S. degree in engineering programs with various options; the B.F.A. with numerous concentrations in art and design and the B.S. in Art History and Theory; the M.S. in the engineering areas; the M.F.A. in three art and design areas; and the Ph.D. in Ceramics, Glass Science, and Materials Science and Engineering. Specific degree requirements for undergraduate degree programs are outlined on the following pages.

Additional Resources:

Institute for Electronic Arts
New York State Center for Advanced Ceramic Technology
Paul Vickers Gardner Glass Center
Schein-Joseph International Museum of Ceramic Art
S.R. Scholes Library

Buildings and Equipment

The College occupies a number of buildings on the Alfred University campus, including Charles Harder Hall, Binns-Merrill Hall, the Hall of Glass Science and Engineering, McMahon Engineering Building and Scholes Library.

Harder Hall contains many of the studios and labs for the School of Art and Design and art history lecture and seminar spaces. The building's central courtyard surrounds an impressive kiln room, containing both gas-and electric-fired kilns; the ceramic studios and glaze labs are in close proximity. Gallery space is available for faculty and student shows, as well as for a wide range of special exhibitions.

The statutory portion of the Inamori School of Engineering is housed mainly in the three-story John F. McMahon Engineering Building, which provides approximately 56,000 square feet of space for laboratories, classrooms and offices. Students are able to gain invaluable hands-on experience with high-tech and traditional processing and characterization equipment, starting in the freshman year with engineering communications and processing courses. The programs in electrical and mechanical engineering are housed in the Engineering Lab Building [SM1], which includes engineering laboratories as well as office space.
Binns-Merrill Hall houses activities and faculty from art and engineering, including laboratories for processing and testing ceramic and glass products, X-ray and

microscopy, research and development, as well as lecture and seminar rooms. Drawing, neon, hot glass and sculpture studios, and administrative offices are also located in Binns-Merrill. The Hall of Glass Science & Engineering houses laboratories and faculty offices supporting the glass engineering program.

The Scholes Library is a significant resource in the areas of engineering and art; its print and non-print resources are more fully described on page 66. The Schein-Joseph International Museum of Ceramic Art at Alfred is housed in temporary quarters on campus as plans proceed for a new building, now in the design stage.

School of Art and Design

The School of Art & Design offers three Professional Degree Programs:

The Bachelor of Fine Arts (BFA)
The Bachelor of Science in Art History and Theory (BS)
The Master of Fine Arts (MFA) in three Areas:

- Ceramic Art
- Electronic Integrated Art
- Sculpture/Dimensional Studies

The Bachelor of Fine Arts (BFA)

The BFA degree provides opportunities for undergraduate students to concentrate in ceramic art, drawing, painting, photography, graphic design, print media, video, sonic art, interactive media, or glass and sculpture. This 4-year program develops a major commitment to studio practice and fosters the conceptual and technical skills necessary to pursue a career in the arts.

BFA students take elective and academic credit from the College of Liberal Arts and Sciences and the College of Business. There are numerous options for art students who want to pursue academic minors such as arts management, art education with teacher certification, environmental studies, performing arts, and philosophy to name a few.

Foundation

Foundation is a full first year course predicated on a rigorous studio practice and a comprehensive teaching philosophy that engages a broad range of issues, extending across and beyond artistic disciplines. Individual students bring their own experiences and skills into a community of peers.

During the course of this year, Foundation emphasizes asking questions, creative thinking, and the synthesis of expanding individual creative experiences making connections between a range of media and ideas. Emphasizing experimentation, group projects and individual aspiration, the Foundation program is a "portal" to a creative education.

During the Fall Semester, students work with faculty teams from different disciplines and perspectives to tackle vital topics in the education of an artist, from form and color to building and drawing to performance and kinetics. The spring semester begins to sharpen the conceptual and technical questions and skills introduced in the fall through smaller workshops. Throughout the year, all Foundation students meet collectively once a week on Wednesday mornings for films, discussions, group projects, performances, and Visiting Artists' talks.

In addition to the Foundation studio courses both semesters, students complete 6-credits of art history, taking three 2-credit courses in non-western art, ancient to baroque art, and modern to contemporary art. First year students also fulfill academic requirements in writing and humanities.

Sophomore Year
The sophomore curriculum is designed to enhance and further develop the studio experience of the Foundation year by creating a structure of options, which support the "high tech, high touch" mission of the school. The curriculum encourages study of studio disciplines represented across each of four Divisions - Ceramic Art; Expanded Media; Painting, Drawing and Photography; and Sculpture/Dimensional Studies.

Sophomores learn fundamental skills necessary in the development of an artistic practice. These include an awareness and ability to understand, use and integrate processes, tools, materials, and vocabularies. Through an inquiry based in research, synthesis, and the use of drawing (one semester is required at the sophomore or junior level) each student is prepared to realize their ideas. During this year students choose four studios, one from each division, or opt to take four studios in three divisions. This allows those who want to focus in a specific division, to do so, while allowing others, a more varied studio experience. Both options are meant to prepare students for the challenges of the junior and senior curriculum.

The sophomore art history requirement, 'Issues and Debates in Contemporary Art' provides an exciting context to the studio experience. Students also extend the breath of their academic experience by choosing elective courses from other colleges at Alfred University.

Junior Year
Students entering the junior year have the latitude and ability to define their interests and creative goals. Students' naturally become more focused, integrating conceptual and technical skills while developing a personal vision in their art making. At the junior level, academic and elective course work fosters interest in cross-disciplinary practice and undergraduate research possibilities.

The junior year is also the time to take advantage of study abroad opportunities. The School of Art & Design has exchange programs in England at University for the Creative Arts at Farnham, in Scotland at Edinburgh College of Art, in Germany at Fachhochschule Koblenz University of Applied Sciences, and in Australia at Sydney College of the Arts and the University of New South Wales.

Senior Year
Seniors work semi-independently in their own studio spaces, and are required to meet weekly with at least two faculty advisors to discuss their work, research and process. Additionally, senior's participate in seminars, visiting artist programs, group critiques, discussions and solo and group exhibitions. Defining their own direction, seniors develop and produce a consistent body of work, which draws on their individual experiences, acquired skills and personal vision. The culmination of the senior year is the senior thesis exhibition. During the final two weeks of the academic year, the School of Art & Design is transformed into quality exhibition space where graduating seniors' display their best work. The opening celebration of 'Senior Shows' includes families and numerous guests from throughout the Southern Tier Region. Following the openings, students come back into their exhibition spaces for final reviews and faculty critiques.

The momentum gained during the senior year prepares graduates to enter the work force as accomplished technicians and highly motivated artists and designers.

BFA Degree Requirements
Students who enroll in the School of Art and Design must complete the requirements listed below to receive the BFA degree:

Academic Requirement *	25
Art History	17
Electives	14
Senior Project	0
Total degree credit hours	**128**

Students must also complete:
The University Global Perspective requirement (see p. 57; p. 81)
The University Physical Education requirement (see p. 57)
Note: additional PE activity credits (100-level PHED, EQUS) may not be used toward any degree requirements

***Academic Requirement (25 credit hours)**
This requirement is met by completing the 4-credits of Writing and 8 -credits of Humanities plus enough additional academic courses to reach the minimum of 25 credits. This requirement is outlined below under the headings Writing, Humanities and Academic Requirements.

Writing Requirement (4 credit hours)
Each student must successfully complete one semester of college writing (ENGL101 or ENGL 102). Students will be placed in the appropriate level course depending upon their scores on college entrance exams. Students scoring 499 or lower on the SAT Writing Exam (539 or lower on the SAT Verbal or 25 or lower on the ACT-English Exam) must take ENGL 101. Students scoring 500-699 on the SAT-Writing Exam (540-739 on the SAT Verbal or 26-29 on the ACT-English Exam) must take ENGL 102. Students scoring 700 or higher on the SAT-Writing Exam (740 or higher on the SAT Verbal, or 30 or higher on the ACT-English Exam) have satisfied this requirement.

Humanities Requirement (8 credit hours)
At least one 4-credit course must be taken from among the 100 or 200 level offerings from (area D, Historical Studies or area B, Philosophy or Religious Studies). The second course may be taken from either the Humanities or "Other Humanities" courses.

Humanities (area B or D)

HIST 110	The Making of Europe
HIST 111	Modern Western History
HIST 121	Medieval Cultures
HIST 212	American History II
PHIL 101	Introduction to Philosophy
PHIL 201	Existentialism
RLGS 105	Introduction to World Religions
RLGS 240	Religion in America
RLGS 265	Asian Religions: India, China, Japan

Other Humanities (may include area A, Literature.)

ANTH 110	Cultural Anthropology
COMM110	Mass Media and American Life

DANC 211	Dance History
ENGL 213	Introduction to Poetry
ENGL 216	20th Century Poetry
ENGL 220	Special Topics in Literature (topics vary)
ENGL 221	Tales of King Arthur
ENGL 225	Shakespeare in Cinema
ENGL 293	Writers Gone Wild: Literature and the Environment
GLBS 101	Introduction to Global Studies and Intercultural Communication
MUSC 200	Special Topics (depending on content)
MUSC 211	World Music
POLS 110	American Politics
POLS 271	World Politics
SOCI 110	Introduction to Sociology
THEA 110	Introduction to Theatre
THEA 210	The Performing Arts: A Global Perspective
THEA 211	Women in Theatre
THEA 311	Theatre History I
THEA 312	Theatre History II

Academic Electives (13 or more credit hours)
Courses from the following areas count toward this requirement:

- Courses offered by the College of Liberal Arts and Sciences *except* private music lessons (MUSC 101-108 or 301-308)
- All courses offered by the College of Business
- All courses offered by the Inamori School of Engineering
- Art History courses beyond the 17-credit hour requirement
- Honors Seminars

Note: 100-level PHED and EQUS courses do NOT count as Academic Electives

Typical Program

First Year		
ART 101	Foundation I **	8
ART 102	Foundation II**	8
ARTH 100-level	Art History (three 2-credit classes)	6
ENGL 101 or 102	Writing I or II	4
	100 or 200 level Humanities	4
Sophomore Year		
ART 200-level	Sophomore Studios**	16
ART 282/23/84	Required Drawing (sophomore or junior year)	4
ARTH 211	Issues and Debates in Contemporary Art	3
	Academic, Art History, or Elective	13
Junior Year		
ART 300-level	Junior Studios**	16
	Art History, Academic, or Elective	16
	Physical Education Activity Course	2
Senior Year		
ART 401	Senior Studio**	16-24
ART 499	Senior Show	0
	Art History, Academic, or Elective	10
	Physical Education Activity Course	2

****Studio courses are assessed a fee for special materials. This fee may vary from $10.00 to $135.00 per credit hour.**

The Bachelor of Science Degree in Art History and Theory (BS)

The BS degree in Art History and Theory is a professional degree program based on a curriculum historically developed in conjunction with studio BFA and MFA programs. It is designed to instill an understanding of artistic developments in the Western and global historical contexts, to provide students with the critical and theoretical tools necessary for functioning as art professionals, and to prepare them for the pursuit of graduate studies in the field. In accordance with this mission, the program intends to educate art historians and theorists whose knowledge of the visual arts is grounded in substantial studio experience as well as extensive academic learning and research. Therefore, the BS in Art History relies on a combination of fundamental theoretical and applied research in art. The faculty of the School and the Division of Art History believe in the necessity of anchoring historical and theoretical knowledge with material practice. Consequently, admission to the program requires the submission and review of a portfolio that will assure the candidate's ability to withstand the rigors of both academic and studio education.

Art History and Theory majors are required to earn a minimum grade of B- for the 300 and 400 level courses in Art History needed to fulfill the required core credits toward the degree major.

Requirements for the degree:

Art/Design History and Supportive Courses: 42 credit hours		
ARTH 120-129	Foundations in Art History (Non-Western)	2
ARTH 130-139	Foundations in Art History (Ancient-Baroque)	2
ARTH 140-149	Foundations in Art History (Modern Contemporary)	2
ARTH 211	Issues and Debates in Contemporary Art	3
PHIL 283	Philosophy of the Arts I	4
ARTH 300-level	4 Junior Art History Courses: Non-Western, Ancient to Baroque, Modern to Contemporary	16
ARTH 400-level	2 Senior Level Art History Courses	8
ARTH 460	Art Historiography and Methodology	3
ARTH 499	B.S. Thesis in Art History and Theory	2
Studio: 24 credit hours		
ART 101 &102	Foundations	16
ART 200 level	Two Sophomore-level studios	8
General Studies: 16 credit hours		
ENGL 101 &102	Writing I & II	8
Humanities (as defined under the BFA requirements, above)		8
Electives: 40 credit hours		
Foreign Language (especially French or German) through the 202 level		16
Academic courses (as defined under the BFA requirements, above)		16
Additional Electives (selected under advisement)		8
Total credit hours for the BS in Art History and Theory		**122**

Students must also complete:

The University Global Perspective requirement (see p. 57; p. 81)

The University Physical Education requirement (see p 57)

Note: additional PE activity credits (100-level PHED, EQUS) may not be used toward any degree requirements

Minors Available

The following three minors are among the many Alfred University minors available to BFA students: See pp. 92, 162, and 171.

Minor in Art History
This minor provides a broad base of knowledge about art as it relates to history and culture, exposes students to a variety of theoretical and methodological issues and helps them develop critical and analytical skills that can be applied to art making.

The art history minor is available to BFA students who have successfully completed Art History Foundation required courses (ARTH 100-level requirement and ARTH 211). Sixteen additional credits in art history at the 300 and 400 level are required to complete the minor. The Art History minor is also available to students in other colleges/schools at the University with the permission of the Division Chair.

Education Minor: Art
Students completing the program meet the academic requirements of the New York State Education Department for Certification in Visual Arts (PreK – 12). Each candidate must complete a major in Art, together with professional education courses. The requirements include a full semester of student teaching. Completion of this program requires one additional fulltime semester (nine semesters in all). See p. 111 for the education requirements.

Arts Management Minor
The Arts Management Minor provides an interdisciplinary approach to the business of art and management of arts organizations. Students have the opportunity to learn and explore the theoretical content and practical skills that engage arts professionals managing individual businesses, serving community arts organizations, and managing not-for-profit arts organizations in the visual, performing, and literary arts. The Arts Management minor is jointly offered by the College of Business, the School of Art and Design, and the College of Liberal Arts and Sciences and is open to all AU students. Students have one advisor from business and one from the arts content area.

Requirements for the Arts Management minor

ACCT 211	Financial Accounting	3
BUSI 485	Internship (specific to Arts Management)	4
ECON 201	Introduction to Economics and Markets	4
MKTG 221	Marketing Principles and Management	3
Choose one additional business course from the following:		3
BUSI 201	Family Business Management	
BUSI 439	Entrepreneurship in the 21st Century	
Choose three arts course, at least one from each Section (A and B, below)		8-12
Total credit hours		**25-29**

Section A- History and Theory

ARTH	Art History (any course)	2-4
DANC 211	Dance History	4
ENGL 241	Survey of American Literature	4
IART 460	Interdisciplinary Art Seminar	4
MUSC 110	Music Appreciation	4
MUSC 211	World Music	4
PHIL 283	Philosophy of the Arts I	4
PHIL 300	Topics in Philosophy (consult with advisor)	1-4
THEA 110	Introduction to Theatre	4
THEA 210	The Performing Arts: A Global Perspective	4
THEA 311	Theatre History I	4
THEA 200/300/400	Special Topics in Theatre (consult with advisor)	1-4

Section B-Applied and Studio Skills Courses

ART 111	Beginning Drawing	4
ART 121	Beginning Sculpture	4
ART 133	Basic Black and White Photography	4
ART 151	Introduction to Ceramics	4
ART 288	Visual Communications I	4
ART 389	Exhibition Design (open only to Art and Design students)	2
DANC	Dance (any course)	1-4
ENGL 200	Special Topics in Writing	2-4
ENGL 202	Fiction Workshop	4
ENGL 205	The Play's the Thing! - Playwriting	4
ENGL 206	Poetry Workshop	4
ENGL 372	Dramatis Personae	4
ENGL 373	Auto/Biographical Acts: Studies in Creative Nonfiction	4
ENGL 374	Writing the Short Story	4
ENGL 375	Writing Formal Poetry	4
ENGL 376	Writing the Long Poem or Poetic Sequence	4
IART	Interdisciplinary Art (any course)	1-4
THEA 120	Technical Theatre	4
THEA 220	Principals of Theatrical and Performance Design	4
THEA 230	Stage Management Fundamentals	4
THEA 240	Acting I	4
THEA 270	Play Production	1-4
THEA 200/300/400	Special Topics (consult with advisor)	1-4

The Graduate Program

Three Master of Fine Arts programs are offered at the School of Art and Design: Ceramic Art, Electronic Integrated Arts and Sculpture/Dimensional Studies. All MFA students receive an assistantship. Entry into these programs is highly competitive. Those interested in learning more about the individual programs should contact the School directly at (607) 871-2442 or e-mail MFA@alfred.edu. Application materials may be obtained from the Graduate Admissions Office, Alfred University, One Saxon Drive, Alfred, NY 14802-1205.

Kazuo Inamori School of Engineering

Biomedical Materials Engineering Science (BMES)
Ceramic Engineering (CE)
Electrical Engineering (EE)
Glass Engineering Science (GES)
Materials Science & Engineering (MSE)
Mechanical Engineering (ME)

The mission of the Kazuo Inamori School of Engineering is to provide academically challenging, inquiry-based programs to prepare technically proficient and broadly educated engineers and scientists at the bachelor, master, and doctoral levels. We offer these programs in a student-centered environment with a strong commitment to the personal, professional, and ethical development of our students.
We engage in research to provide a foundation for our educational programs, to advance the frontiers of knowledge, and to support economic growth.

The School of Engineering offers six Bachelor of Science, six Master of Science and three Ph.D. degrees. The Bachelor of Science (BS) degree programs in Ceramic Engineering (CE), Electrical Engineering (EE), Glass Engineering Science (GES),

Materials Science and Engineering (MSE), and Mechanical Engineering (ME) are accredited by the Accreditation Board for Engineering and Technology (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 - telephone (410) 347-7700. Started in 2003-04, the Biomedical Materials Engineering Science (BMES) degree program is not yet accredited; however, it is expected that the program will seek ABET accreditation during the next accreditation cycle. The Electrical Engineering program is no longer accepting new first-year students, but will accept transfer students into the program, providing that they can reasonably complete the degree by May 2015.

Upon graduating with a BS degree in CE, EE, GES, MSE, and ME, students are eligible to take the Fundamentals of Engineering (FE) examination, the next step towards registration as a Professional Engineer. Having passed the FE examination, the remaining two steps are: 1) four years of relevant post-baccalaureate experience and 2) passing the Professional Engineering (Principles and Practices) examination.

All Inamori School of Engineering faculty members have doctoral degrees, and all are engaged in teaching and research. Research expenditures average ~$5M annually and is sponsored by corporate entities, government agencies and philanthropic organizations. Faculty members often bring recent research results or examples from industry into their classroom teaching. Undergraduate students have opportunities to participate in research programs in the School and/or to participate in co-operative education or internship programs that have developed from faculty contacts with industry.

School of Engineering General Requirements

GPA Requirement
No more than 2 grades of D or D+ in engineering core courses taken at Alfred University may be applied for graduation in any program in the School of Engineering for students entering the University Fall 2011 and thereafter. Accumulation of excess D or D+ grades constitutes “low grades in critical prerequisite courses” per the Academic Standing requirements in the AU Catalog. This requirement supplements the existing requirement for a 2.00 GPA in major engineering courses.

Written Communication Requirement
Students must complete ENGR 110, Technical Communications. Proficiency in basic English skills as demonstrated by successful completion of ENGL 101, or an equivalent course, or by specified scores on standardized tests is a prerequisite for ENGR 110. Students are exempted from ENGL 101 for a score >540 on the SAT Verbal, or >500 on the SAT Writing Exam or SAT II, or >26 on the ACT-English. Credits earned by successfully completing ENGL 101 do not count towards the degree credit requirements.

Humanities/Social Science Requirement
At least one humanities/social sciences course meeting the General Education Requirements must be selected from three of the following discipline areas:

1. Literature (A), Philosophy or Religion (B); 2. The Arts (C); 3. Historical Studies (D); 4. Social Sciences (E); 5. Foreign Language (II) (Note: a student must take the two-semester introductory sequence in a language, or its equivalent, in order to meet the requirement). Additional courses in the five discipline areas (with or without a letter designation) and ENGR 110 may be used to meet the 20 credit minimum for humanities and social sciences requirement, but no more than 4 credits of coursework in discipline area C (The Arts) will count towards the 20 credit hour minimum. Courses that meet Quantitative Reasoning (III) do not count towards the Humanities/Social Science Requirement. ENGL 101 does not count towards the 20 hours, or toward the minimum number of credit hours required for graduation.

Seminar Requirement
Students must enroll in and successfully pass ENGR 360 Undergraduate Seminar (or ENGR 160 Freshman Seminar, as appropriate) each semester they are enrolled fulltime in one of the School of Engineering degree programs.

Engineering Major Requirements

Biomedical Materials Engineering Science (BMES)
Advanced materials are needed for biomedical applications. Implantable devices like pacemakers, defibrillators, and artificial joints must be biocompatible while carrying out complex chemical, mechanical, and electrical functions. Sensors used in medical diagnostics must recognize pathogens while ignoring a multitude of closely related molecules. The goal of the Biomedical Materials Engineering and Science curriculum at Alfred University is to train next-generation biomaterials engineers to understand the basic principles of structure and function for both living and nonliving materials and to use these concepts to create materials for biomedical applications. The curriculum is a unique fusion of materials engineering/science and molecular cell biology that puts students ahead of the curve in areas such as bioengineering, biotechnology, and nanotechnology. In addition to opening the door to countless technical careers, it also provides outstanding preparation for alternative careers such as medical school, law school, or the MBA.

BMES Program Objectives
It is expected that, during the first few years after graduation:
1) The unique expertise of our alumni will allow them to accomplish assignments that make a significant contribution to biomaterials and biomedical engineering. These accomplishments, expected to occur in a professional venue, will be the result of a unique curriculum that creates *bona fide* Materials Engineers with the education and hands-on experience in both materials and biology necessary to play a leading role in the dynamic and emerging field of biomaterials engineering.
2) Our alumni will demonstrate an accomplished understanding of the interface between living and nonliving materials that includes the body of knowledge unique to the biomedical and biotechnology applications of materials science and engineering.
3) Our alumni will be key individuals who can help other engineers accomplish a successful interface with the biomedical and biotechnology industries.
4) A substantial number of our graduates will accomplish further educational and career goals in the healthcare professions. These accomplishments include graduation from medical school, graduate school, and law school.
5) Our alumni will have accomplished tasks uniquely related to the ethical considerations created by the use of materials in medicine. As professional bioengineers, such tasks could include providing guidance to their employers (including the government) on health, safety, and industrial hygiene issues that arise from the use of materials living systems.

In the university setting, such tasks could include participation on the Institutional Committees that address biosafety, human subjects, and animal welfare. In industrial, government, or academic settings, such accomplishments could include publication of articles that address the bioethics of materials in medicine.

BMES Degree Requirements and Curriculum
In addition to Alfred University's physical education requirement and global perspective requirement and the School of Engineering general requirements, the minimum requirements for the Bachelor of Science in Biomedical Materials Engineering Science are:

ENGR 110	Technical Communication	4
	Humanities, Social Science and Arts electives	16
MATH 151	Calculus I	4
MATH 152	Calculus II	4
MATH 253	Calculus III	4
MATH 271	Differential Equations	3
ENGR 305	Engineering Statistics (or BIOL 226)	3
CHEM 105	General Chemistry I	4
CHEM 106	General Chemistry II	4
CHEM 310	Basic Organic Chemistry	3
PHYS 125	Physics I	4
PHYS 126	Physics II	4
BIOL 202	Biology II	4
BIOL 362	Molecular Cell Biology	4
ENGR 101	Introduction to Engineering	2
ENGR 102	Computer Aided Design	2
ENGR 104	Computer Aided Engineering	2
ENGR 11x	Exploration Labs (select 2, 1 credit each)	2
CEMS 214	Structure and Properties of Materials	3
CEMS 215	Microscopy and Microstructural Characterization	3
CEMS 216	Bonding and Structure of Materials	3
CEMS 235	Thermodynamics of Materials	4
CEMS 334	Introduction to Polymers	3
CEMS 336	Physical Metallurgy I	3
CEMS 347	Spectroscopy	2
CEMS 349	X-ray Characterization	2
CEMS 368	Introduction to Bioengineering	3
CEMS 468	Biomedical Materials	3
CEMS 484	Engineering Operations	4
CEMS 480/1	Thesis	4
MECH 211	Statics	3
MECH 241	Mechanics of Materials I	3
	Biology Electives	8
	Engineering Electives	3
	Technical Electives	6
Total Credit Hours		**133**

Ceramic Engineering (CE)
Ceramics are materials of basic living, of advanced technology, and of extreme environments. You encounter traditional ceramics every day of your life-dinnerware, bathroom fixtures, floor and wall tiles, and cement and brick structures. You also encounter advanced ceramics every day, but often hidden from view-components in electronic devices (computers, iPods, cellular phones), sensors in automobiles, igniters in appliances.

Finally, ceramics are often used in manufacturing other materials and products-refractories that contain molten metals, filters for molten materials, insulators for furnaces, cutting tools, abrasives, and wear-resistant components.

In a nutshell, ceramics are some of the oldest and some of the newest materials we use. The field is small, but highly diverse, growing, and wide open for bright people with imagination. Many issues that impact energy conservation, recycling, and other environmental concerns can only be solved by the use of ceramics, including some that haven't been invented yet.

Ceramic engineering graduates have many career paths to choose from. Many become process engineers, ensuring that manufacturing operations run smoothly and developing improvements that enhance production efficiency and save energy. Others work in technical sales, explaining materials and products, and working with customers to achieve the best match between needs and products. Some are engaged in developing new materials and processes, or in testing materials and components. Of course, some choose to continue their education, achieving a Masters or Ph.D., and then going into research and/or teaching. Many ceramic engineering graduates, regardless of their initial path, achieve management positions (supervisors, plant managers, directors of research, etc.), and many end up owning their own companies.

CE Program Objectives

The objectives of the Ceramic Engineering program are as follows:

1) Graduates of the Ceramic Engineering Program will be materials engineers whose focus is on ceramic materials.
2) Graduates of the Ceramic Engineering Program will both understand the principles of engineering and can undertake the practice of producing and characterizing engineered ceramic materials.
3) Graduates of the Ceramic Engineering Program will be able to operate as engineers or managers in the field of ceramic materials and related industries, or in academia.

CE Degree Requirements and Curriculum

In addition to Alfred University's physical education requirement and global perspective requirement and the School of Engineering general requirements, the minimum requirements for the Bachelor of Science in Ceramic Engineering are:

ENGR 110	Technical Communication	4
	Humanities, Social Science and Arts electives	16
MATH 151	Calculus I	4
MATH 152	Calculus II	4
MATH 253	Calculus III	4
MATH 271	Differential Equations	3
ENGR 305	Engineering Statistics	3
CHEM 105	General Chemistry I	4
CHEM 106	General Chemistry II	4
PHYS 125	Physics I	4
PHYS 126	Physics II	4
ENGR 101	Introduction to Engineering	2
ENGR 102	Computer Aided Design	2
ENGR 104	Computer Aided Engineering	2
ENGR 11x	Exploration Labs (select 2, 1 credit each)	2
CEMS 203	Introduction to Ceramic Powder Processing	2
CEMS 214	Structure and Properties of Materials	3

CEMS 215	Microscopy and Microstructural Characterization	3
CEMS 216	Bonding and Structure of Materials	3
CEMS 221	Electrical Engineering Laboratory	2
CEMS 235	Thermodynamics of Materials	4
CEMS 237	Thermal Processes in Materials	4
CEMS 314	Ceramic Processing Principles	3
CEMS 317	Sintering	4
CEMS 321	Instrumentation and Controls for Engineers	2
CEMS 322	Introduction to Glass Science	3
CEMS 342	Thermal and Mechanical Properties	4
CEMS 344	Properties II: Electrical, Magnetic, and Optical	4
CEMS 347	Spectroscopy	2
CEMS 349	X-ray Characterization	2
CEMS 484	Engineering Operations	4
CEMS 480/1	Thesis	4
MECH 211	Statics	3
MECH 241	Mechanics of Materials I	3
	Ceramic Electives	6
	Technical Electives	6
Total Credit Hours		**133**

Electrical Engineering (EE)
Electrical Engineering is the largest and most diverse field of engineering today. It deals with the practical application of electrical science and technology to the needs of society as well as to research in and development of new applications. Areas such as electronic information processing and communications, semiconducting devices, superconducting devices, computer systems, electronic instrumentation, power and machinery, control systems, and signal systems and analysis are covered. A minor in mathematics is easily obtained by Electrical Engineering students. A degree in Electrical Engineering, along with the professional engineer's license, guarantees a wide variety of career options: industry, research, marketing, consulting, management, sales, teaching, graduate school, or government.

Fields of Specialization in Electrical Engineering
Automatic Control and Robotics
Modern control systems are used for controlling the many production systems found in industrial plants and in data processing necessary in banks and other businesses. Controllers are implemented using analog components, microprocessors, PCs, and digital signal processors. The mathematics of control includes the modeling of physical systems, both natural and man-made.

Computer Engineering
Computer Engineers are concerned with the design and production of the hardware and software components comprising computer systems, computer organization and architecture, system programming, operating systems, and digital hardware design. Computer Engineers do research into network design and artificial intelligence, and embedded systems.

Power Generation, Transmission, Distribution and Use
The pervasive need for electrical energy for both industrial and private use guarantees job opportunities for electrical engineers who are concerned with all forms of power generation, transmission and distribution. Some electrical engineers may work on innovative energy conversion by solar, fuel cell, wind generation or other alternative sources.

Communication Systems and Optoelectronics
Electrical engineers in this area may work in radio, television, telephone, or in satellite, microwave or fiber optics systems. This field requires knowledge of antennas, lasers, electromagnetic principles for waveguides and electrical and optical properties of materials.

Electronic Materials and Solid-State Circuitry
Microcircuitry is assisting the revolutions in information systems, instrumentation and controls, communications systems, and even automotive and consumer products. The microprocessor integrated circuit is altering operational methods in nearly all electrical engineering applications. Engineers who work in electronics design and development require knowledge of both electrical science and materials.

Electroceramics
These are the enabling materials for nearly all passive and active electrical components. Electroceramics are often the materials that give physical existence to the work of electrical engineers. For example, superconductors, fuel cell electrolytes, and phosphors are all electroceramics. Typical electroceramic components, produced by the billions, include multilayer capacitors, inductors, resistors, filters, resonators, sensors, actuators, computer chip substrates, and other solid state electronic parts.

EE Program Objectives
The objectives of the Electrical Engineering Program are to produce engineers who 1) advance in multidisciplinary engineering careers within the context of Electrical Engineering beginning with either entry-level positions in industry or postgraduate studies in electrical engineering and related fields, 2) actively engage in teams that solve problems with independent thinking with a drive towards excellence in their job/study performance, and 3) adopt the engineering method with their lifelong learning skills with understanding of complex social issues where engineering will play a key role.

EE Degree Requirements and Curriculum
In addition to Alfred University's physical education requirement and global perspective requirement and the School of Engineering general requirements, the minimum requirements for the Bachelor of Science in Electrical Engineering are:

ENGR 110	Technical Communication	4
	Humanities, Social Science and Arts electives	16
MATH 151	Calculus I	4
MATH 152	Calculus II	4
MATH 253	Calculus III	4
MATH 271	Differential Equations	3
ENGR 206	Engineering Economy	3
ENGR 305	Engineering Statistics	3
ENGR 388	Applied Complex Variables	3
CHEM 105	General Chemistry I	4
PHYS 125	Physics I	4
PHYS 126	Physics II	4
ENGR 101	Introduction to Engineering	2
ENGR 102	Computer Aided Design	2
ENGR 104	Computer Aided Engineering	2
ENGR 11x	Exploration Labs (select 2, 1 credit each)	2
ELEC 106	Discoveries Laboratory	2
ELEC 210	Digital Logic	4

ELEC 220	Circuit Theory I	4
ELEC 303	Software Engineering	4
ELEC 310	Microprocessor Systems and Applications	4
ELEC 320	Circuit Theory II	4
ELEC 322	Signals and Systems	3
ELEC 354	Device Electronics	3
ELEC 356	Electronic Circuits	4
ELEC 468	Electric Machinery	3
ELEC 490	Engineering Design Methods	2
ELEC 496	Senior Design Project	4
MECH 212	Dynamics	3
MECH 320	Thermodynamics I	3
	Technical Electives	15
Total Credit Hours		**126**

EE Technical Electives
Electrical Engineering students take a minimum of 15 credit hours of technical electives.

These courses are chosen in consultation with the student's advisor to form an in-depth, coherent plan of study. A minimum of four hours must involve aspects of design.

Glass Engineering Science (GES)
Glasses have been used for thousands of years--in drinking glasses, storage bottles, prized decorative objects, and jewelry. Glasses have these same uses today, but glasses are truly high-technology materials used in optical applications, as sophisticated windows that control light and heat, and in fiber optics that make high-speed, high-capacity voice and data communications possible. Glasses are essential components of many medical devices, such as X-ray tubes, endoscopes, and lasers.

Advanced testing is being done on using small glass spheres, injected into the bloodstream, to carry radiation or chemotherapy agents directly to the liver to attack cancer in the liver.

Most glass products are made from abundant raw materials, such as sand and soda, and glasses are recyclable. In fact, in some countries, glass containers are made using over 90% recycled glass. There are numerous opportunities for new applications for glass, the development of new glasses, and further efficiencies in glass manufacturing. You can't imagine life today without glass, and that will be even more the case in the future.

Glass engineering science graduates are highly sought after by the glass industry and by companies that use glasses in processes or products. The Glass Engineering Science program is unique. There simply isn't another program like it in the United States. Graduates can oversee glass production, work on developing new processes and products, test glass products, or work in technical sales. Many choose to continue their education, obtaining a Masters or Ph.D., preparing them for research or teaching at a college or university. With time, and the time may be very short, many will become managers or owners of their own companies.

GES Program Objectives

The program objectives of the Glass Engineering Science program are as follows:

1) Graduates of the Glass Engineering Program will be fully qualified as materials engineers with a specialized knowledge of the vitreous state, its science, engineering and manufacture.
2) Graduates of the Glass Engineering Science Program will be well-rounded individuals who both understand the principles and can undertake the practice of engineering materials, particularly glass.
3) Graduates of the Glass Engineering Program will be able to operate as effective engineers or managers in both glass and other related industries or academia.

GES Degree Requirements and Curriculum

In addition to Alfred University's physical education requirement and global perspective requirement and the School of Engineering general requirements, the minimum requirements for the Bachelor of Science in Glass Engineering Science are:

ENGR 110	Technical Communication	4
	Humanities, Social Science and Arts electives	16
MATH 151	Calculus I	4
MATH 152	Calculus II	4
MATH 253	Calculus III	4
MATH 271	Differential Equations	3
ENGR 305	Engineering Statistics	3
CHEM 105	General Chemistry I	4
CHEM 106	General Chemistry II	4
PHYS 125	Physics I	4
PHYS 126	Physics II	4
ENGR 101	Introduction to Engineering	2
ENGR 102	Computer Aided Design	2
ENGR 104	Computer Aided Engineering	2
ENGR 11x	Exploration Labs (select 2, 1 credit each)	2
CEMS 214	Structure and Properties of Materials	3
CEMS 215	Microscopy and Microstructural Characterization	3
CEMS 216	Bonding and Structure of Materials	3
CEMS 221	Electrical Engineering Laboratory	2
CEMS 235	Thermodynamics of Materials	4
CEMS 237	Thermal Processes in Materials	4
CEMS 321	Instrumentation and Controls for Engineers	2
CEMS 322	Introduction to Glass Science	3
CEMS 324	Mass Transport in Glasses and Melts	3
CEMS 325	Glass Laboratory	2
CEMS 328	Industrial Glass and Glass-Ceramics	3
CEMS 342	Thermal and Mechanical Properties	4
CEMS 344	Properties II: Electrical, Magnetic, and Optical	4
CEMS 347	Spectroscopy	2
CEMS 349	X-ray Characterization	2
CEMS 484	Engineering Operations	4
CEMS 480/1	Thesis	4
MECH 211	Statics	3
MECH 241	Mechanics of Materials I	3
	Technical Electives	12
Total Credit Hours		**132**

Materials Science and Engineering (MSE)
Advanced materials are critical to nearly every modern technology (electronics, transportation systems, and medical devices). They also play an important role in the solutions to energy and environmental problems we face today. Materials Science and Engineering (MSE) is the broad interdisciplinary field that uses the principles of chemistry, physics, engineering, and biology to develop the improved materials. With an increased focus on nanotechnology, the field is advancing rapidly and will be at the heart of new technologies that we haven't even envisioned.

A materials engineer may specialize in a specific material class (ceramics, metals, polymers) or a specific area of materials science (electrical properties, mechanical properties, processing, testing, etc.), but should possess a broad background in materials science and engineering. Increased emphasis on cost, weight, and size reduction, while still improving product performance, creates challenges for monolithic materials, and opportunities for composites and other new materials. Miniaturization of components frequently is limited by the interactions of dissimilar materials at a microscopic scale. A materials engineer must be able to optimize the overall performance of complex systems involving several materials. In many industries, several materials may be competing for the same market (e.g., polymer composites versus metallic aircraft structures, and ceramic versus metallic engine components). In these applications, a materials engineer must be able to make an unbiased decision in selecting the best material (or combination of materials), which requires a fundamental understanding of the properties and performance of each of the competing materials.

The broad technical base of the Materials Science and Engineering degree prepares graduates for employment in a wide range of industries, including electronics, automotive, and aerospace, as well as for graduate school in engineering and science. Graduates of this program are particularly well suited to work for smaller companies that need materials engineers with a broad background, rather than people specialized in particular fields. Many companies involved in manufacturing require engineers with this broad materials background who can specify materials selection, oversee production, or maintain quality control.

MSE Program Objectives
The MSE program objectives are as follows:

1) MSE program graduates will be prepared for careers in materials-related industries and will continue to move into positions with both increased technical skill requirements and increased managerial responsibilities.
2) MSE program graduates will be prepared to continue their educational endeavors in both technical and non-technical fields including graduate studies in MSE, and in other science and engineering majors; MBA programs; medical school; law school or short course/workshops applicable to growth within a chosen technical field.
3) MSE program graduates will be prepared to become leaders in the development of their professions including professional society activities, conference presentations, scholarly publications, and student recruiting and mentoring.

MSE Degree Requirements and Curriculum
In addition to Alfred University's physical education requirement and global perspective requirement and the School of Engineering general requirements, the minimum requirements for the Bachelor of Science in Materials Science and Engineering are:

ENGR 110	Technical Communication	4
	Humanities, Social Science and Arts electives	16
MATH 151	Calculus I	4
MATH 152	Calculus II	4
MATH 253	Calculus III	4
MATH 271	Differential Equations	3
ENGR 305	Engineering Statistics	3
CHEM 105	General Chemistry I	4
CHEM 106	General Chemistry II	4
PHYS 125	Physics I	4
PHYS 126	Physics II	4
ENGR 101	Introduction to Engineering	2
ENGR 102	Computer Aided Design	2
ENGR 104	Computer Aided Engineering	2
ENGR 11x	Exploration Labs (select 2, 1 credit each)	2
CEMS 214	Structure and Properties of Materials	3
CEMS 215	Microscopy and Microstructural Characterization	3
CEMS 216	Bonding and Structure of Materials	3
CEMS 221	Electrical Engineering Laboratory	2
CEMS 235	Thermodynamics of Materials	4
CEMS 237	Thermal Processes in Materials	4
CEMS 314	Ceramic Processing Principles	3
CEMS 321	Instrumentation and Controls for Engineers	2
CEMS 322	Introduction to Glass Science	3
CEMS 334	Introduction to Polymers	3
CEMS 336	Physical Metallurgy I	3
CEMS 342	Thermal and Mechanical Properties	4
CEMS 344	Properties II: Electrical, Magnetic, and Optical	4
CEMS 446	Composite Design and Fabrication	3
CEMS 347	Spectroscopy	2
CEMS 349	X-ray Characterization	2
CEMS 484	Engineering Operations	4
CEMS 480/1	Thesis	4
MECH 211	Statics	3
MECH 241	Mechanics of Materials I	3
	Technical Electives	9
Total Credit Hours		**133**

Mechanical Engineering (ME)
Mechanical engineers are often called the 'general practitioners' of engineering because of the broad scope of their education and the diversity of their professional opportunities. The characteristics commonly shared by mechanical engineers are individuality, creativity and flexibility. Due to its breadth, Mechanical Engineering is generally linked to the economy as a whole; job prospects are relatively immune to isolated economic events.

Mechanical Engineering is an ideal education for professional entrance into industry, for development of one's own company, or for a variety of opportunities in educational institutions and government agencies.

A bachelor's degree in Mechanical Engineering frequently precedes the study of law, business or medicine, as well as graduate engineering studies.

Because the undergraduate training is broad, as well as comprehensive, the mechanical engineer is in demand in practically every type of manufacturing, research and government organization. He/she may be employed in the automotive, aerospace, electrical, chemical, solar, petroleum, plastics, or metal-processing industries. The work may involve one or several of the following: research and development, design and testing of equipment and systems, supervision of production, sales engineering, plant engineering, and administration.

Some mechanical engineers work in areas not usually considered to require engineering expertise. For example, biomechanical engineers work with physicians to investigate the mechanics of the body and to design instruments and devices for medical purposes. Other mechanical engineers work closely with trainers and athletes, to design sports equipment. Certainly, the professional mechanical engineer has influenced most products and systems we deal with on a regular basis.

Some examples of mechanical engineering applications include:

- Applied Mechanics. Engineers apply mechanics principles to the study, design, and development of systems and components that transmit specified motion, forces, and power and that withstand the stresses, strain, fatigue, shock, and vibration within the system itself.
- Controls. With the advent of the microprocessor, on-line data processing and control are incorporated into a variety of manufacturing and processing systems.
- Design. Design engineers combine a working knowledge of materials and components with the complexities and economics of assembling these components into products and systems.
- Engines and Power Plants. Engineers work with reciprocating and rotating engines utilizing gas combustion or steam pressure to generate power that is transmitted through shaft motion.
- Energy. Engineers make use of solar, wind, geothermal, nuclear and fossil-fuel sources to generate power.
- Fluids. Utilizing the various properties of fluids such as density, viscosity, and compressibility, engineers develop applications with these fluids for new hydraulic control or power transmission devices.
- Lubrication. Engineers try to inhibit the wear on moving parts by choosing or developing a lubricating method that minimizes friction and energy dissipation.
- Heating, Ventilating, and Air-Conditioning (HVAC). HVAC engineers must understand heat transfer, thermodynamics, and control theory to develop energy-efficient systems that control temperature and air quality.
- Materials. Mechanical engineers select, develop, and apply materials for bearings, brakes, clutches, gears, chains, screws, bolts, lubrication, insulation, heat transfer, and so on.
- Pressure Vessels and Piping. Containment structures for solids, liquids and gases are developed to withstand temperatures and pressures, which may vary dynamically.
- Transportation and Aerospace. Engineers in this specialty are engaged in the production or study of the motion of automobiles, trains, ships, planes, missiles, satellites, and rockets. Among their many responsibilities, they may develop improved gasoline or diesel engines, improve automobile power train transmission characteristics, modify the configuration of aircraft structures, or improve solid propellant rocket engines.

The mechanical engineering faculty stresses undergraduate research as an important part of the educational process. Many undergraduate students participate in their faculty's research programs, which offer excellent opportunities for students to apply

the knowledge they have gained in classrooms and to be aware of the current industrial needs and state of technologies.

Undergraduate students also have opportunity to gain valuable experiences participating in engineering, research, and/or manufacturing projects through cooperative education and internship programs at a companies or national laboratory.

The mission of the Mechanical Engineering Division is to provide a superior student-centered engineering education within a small university environment. Our dedicated faculty place highest value on the undergraduate teaching-learning process, while also being active in professional engineering activities and societies and engaging in scholarly activities. Graduates of our program will understand the social and ethical implications of their engineering decisions, and be prepared to excel in the engineering profession.

ME Program Objectives
The objectives of the Mechanical Engineering program are as follows: 1) to produce engineers who have a broad based mechanical engineering background with a solid foundation in the fundamental principles of science and engineering; 2) to produce graduates who are skilled at applying math, science and engineering principles to solve technical problems; 3) to produce graduates who are able to communicate effectively about their work and can function collaboratively in multi-disciplinary teams; 4) to produce graduates who have the skills for critical thinking and lifelong learning and who place a high value on professional integrity and ethical responsibility.

ME Degree Requirements and Curriculum
In addition to Alfred University's physical education requirement and global perspective requirement and the School of Engineering general requirements, the minimum requirements for the Bachelor of Science in Mechanical Engineering are:

ENGR 110	Technical Communication	4
	Humanities, Social Science and Arts electives	16
MATH 151	Calculus I	4
MATH 152	Calculus II	4
MATH 253	Calculus III	4
MATH 271	Differential Equations	3
MATH 401	Advanced Engineering Mathematics	4
ENGR 305	Engineering Statistics	3
CHEM 105	General Chemistry I	4
CHEM 106	General Chemistry II	4
PHYS 125	Physics I	4
PHYS 126	Physics II	4
ENGR 101	Introduction to Engineering	2
ENGR 102	Computer Aided Design	2
ENGR 104	Computer Aided Engineering	2
ENGR 11x	Exploration Labs (select 2, 1 credit each)	2
ENGR 206	Engineering Economy	3
CEMS 214	Structure and Properties of Materials	3
ELEC 220	Circuit Theory I	4
MECH 211	Statics	3
MECH 212	Dynamics	3
MECH 241	Mechanics of Materials I	3
MECH 320	Thermodynamics I	3

MECH 321	Thermodynamics II	3
MECH 324	Fluid Mechanics I	3
MECH 326	Heat Transfer	3
MECH 327	Thermal Sciences Laboratory	2
MECH 343	Mechanics of Materials Laboratory	2
MECH 362	Kinematics and Dynamics of Machinery	3
MECH 364	Machine Design I	3
MECH 366	Manufacturing	3
MECH 417	Introduction to Finite Element Analysis	3
MECH 495	Senior Design Project I	3
MECH 496	Senior Design Project II	3
	Mechanical Electives	9
	Technical Elective	3
Total Credit Hours		**132**

Undecided Engineering

Alfred University offers a first-year undecided option for engineering students who want a little more time to select a major. All of the engineering majors, except Biomedical Materials Engineering Science, share a common curriculum in the first semester, which includes Calculus I, General Chemistry I, Introduction to Engineering, Computer-aided Design, and an elective. In the second semester, undecided students enroll in Calculus II, General Chemistry II, General Physics I, Computer-aided Engineering, and two Engineering Exploration laboratories. By providing hands-on experiences related to different engineering majors, the Engineering Exploration labs are designed to help students select an engineering major.

Minors in the School of Engineering

The School of Engineering has minors available to all students pursuing an undergraduate degree at Alfred University. All students must meet the prerequisites for the specified courses. These minors are generally intended for students majoring in engineering, math and the physical sciences. Some minors have restrictions which prevent them from being taken by certain engineering minors, i.e. the Materials Science minor is not available to students majoring in Biomaterials Engineering Science, Ceramic Engineering or Glass Engineering Science.

Requirements for the Biomedical Materials Minor

BIOL 362	Molecular Cell Biology	4
CHEM 310	Basic Organic Chemistry	3
CEMS 368	Introduction to Bioengineering	3
CEMS 468	Biomedical Materials	3
Plus 4 courses from the following list:		
CEMS 214	Materials Science II	3
CEMS 215	Microscopy and Microstructural Characterization	3
CEMS 251	*Mechanics of Materials	3
CHEM 315/316	Organic Chemistry I and II	8
CEMS 334	Introduction to Polymers	3
CEMS 336	Physical Metallurgy I	3
CEMS 342	Thermal and Mechanical Properties	3
CEMS 434	Polymer Characterization	3
CEMS 436	Physical Metallurgy II	3
CEMS 446	Composite Design and Fabrication	3
CEMS 466	Skeletal Tissue	3
BIOL 302	General Microbiology	4
BIOL 372	Advanced Cell Biology	4

BIOL 402	Immunology	4
BIOL 420	Biochemistry: Proteins and Metabolism	4
BIOL 422	Biochemistry: Nucleic Acids	4
SCIE 125	*Materials and Society	4
Minimum total credit hours:		**24**

Requirements for the Electrical Engineering Minor

ELEC 220	Circuit Theory I	4
Plus at least 14 credits from the following list:		
ELEC 210	Digital Logic	4
ELEC 303	Software Engineering	4
ELEC 310	Microprocessor Systems and Applications	4
ELEC 320	Circuit Theory II	4
ELEC 322	Signals and Systems	3
ELEC 354	Device Electronics	3
ELEC 356	Electronic Circuits	4
ELEC 400	Topics in Electrical Engineering	2-4
ELEC 422	Control Systems	3
ELEC 468	Electric Machinery	3
ELEC 478	Electric Power Systems	3
ELEC 486	VLSI Design	3
Minimum total credit hours:		**18**

Requirements for the Glass Science and Technology Minor

CEMS 322	Introduction to Glass Science	3
CEMS 325	Glass Laboratory	2
CEMS 328	Industrial Glass and Glass-Ceramics	3
Plus at least 6 credits from the following list:		
CEMS 324	Mass Transport in Glasses and Melts	3
CEMS 420	Optical Glasses	3
CEMS 424	Introduction to Photonics	3
CEMS 425	Optical Spectra of Solids	2
CEMS 426	Advanced Glass Science	3
CEMS 450*	Independent Study (in Glass)	1-3
CEMS 480/481*	Thesis (in Glass)	4
COOP 385*	Co-op Program (in Glass)	3
Minimum total credit hours:		**14**

Requirements for the Materials Science Minor

CEMS 214	Structure and Properties of Materials	3
CEMS 216	Materials Structure and Bonding	3
CEMS 235	Thermodynamics of Materials (or CHEM 343 and MECH 320)	3
Plus at least 2 courses from the following list:		
CEMS 203	Introduction to Ceramic Powder Processing	3
CEMS 237	Thermal Processes in Materials	4
CEMS 3xx	Any regularly scheduled CEMS course at 300-level *except* CEMS 302 and CEMS 321	
CEMS 4xx	Any regularly scheduled CEMS course at 400-level *except* special topics and independent study	
Minimum total credit hours:		**15**

Note: The Materials Science Minor is not available to students majoring in Biomedical Materials Engineering Science, Ceramic Engineering, or Glass Engineering Science.

Requirements for the Mechanical Engineering Minor

MECH 211	Statics	3
MECH 212	Dynamics	3
MECH 241	Mechanics of Materials I	3

MECH 320	Thermodynamics I	3
MECH 324	Fluid Mechanics I	3
MECH 326	Heat Transfer	3
	Choice of 300 or 400-level MECH	3
Minimum total credit hours:		**21**

Requirements for the Renewable Energy Engineering Minor

MECH 326	Heat Transfer	3
MECH 324	Fluid Mechanics I	3
ENGR 401	Sources of Renewable Energy	3
Plus at least 6 credits from the following list:		
ELEC 432	Wind Energy	3
ELEC 4xx	Solar Energy Systems	3
ELEC 4xx	Fuel Cells	3
CEMS 352	Electroceramics	3
CEMS 4xx	Nuclear Materials	3
Minimum total credit hours:		**15**

Minors in Other Areas of Study

Minors in nearly every other area of study at the University are open to students in the School. Minors in business, mathematics, chemistry, physics, and science policy are very compatible with the degree programs, since upper-level courses in these areas can be used as technical electives. A minor in Business is facilitated by allowing two courses required for the Business minor, MKTG 221 and MGMT 328, to count as technical electives in BMES, CE, GES, and MSE. The Business minor can be used as the foundation for an MBA (see the section on MBA and Law Programs.)

Special Programs/Options/Opportunities

Cooperative Education (Co-op) and Internships

Undergraduate students have the opportunity to gain experience in a real engineering, research or manufacturing project at a company or national laboratory. Students in the co-op program commonly work during one of their junior year semesters during which they receive 3 academic credits; the sponsor pays a salary and some expenses.

Co-op work sites for students in our program are extensive and are distributed from Maine to California in companies big and small. Quality work experience is considered to be extremely valuable by employers hiring graduates for permanent positions. Over 70% of our students participate in a co-op or an internship (summer employment) in an engineering environment before graduating.

Study Abroad

Opportunities exist abroad for our students to study in their major without impeding progress toward the degree, at the following institutions.

- University of Erlangen-Nürnberg; University of Clausthal, Germany
- University of Parma; University of Modena, Italy
- École Nationale Supérieure de Céramique Industrielle, Limoges, France
- University of Sheffield, England
- Kansai Gaidai University, Japan
- University Jaume I, Castellon, Spain

Students going to a non-English speaking country must complete language study through at least the first college year. An intensive language course abroad precedes study at the host institution. Knowledge of a foreign language and culture is considered quite valuable by employers operating in a global economy.

Preparation for the Health Professions

An engineering education provides a strong background for continued study in the health professions. Interested students must choose electives wisely and maintain a high grade point average. Students must take biology (BIOL 201 and 202) and organic chemistry (CHEM 315 and 316). An upper-level course in biology is recommended.

Medical schools are interested in students who are aware of current medical trends in our society and who have strong written, oral, and interpersonal skills. Students need to be able to articulate the origin of their interest in medicine and to demonstrate that interest through volunteer/internship experiences in health care facilities/settings.

Interested students wanting more information about academic preparation and the application and admissions processes should consult with the Chair of the University Health Professions Advisory Committee.

Participation in Research

The School has more than $5 million of sponsored research annually. This research has a positive impact on the undergraduate programs in many ways, including by providing state-of-the-art equipment, by generating new knowledge that gets discussed in classes, and by maintaining contacts with industry. Also, many senior thesis projects are done in cooperation with companies or government laboratories. Opportunities for part-time work on funded research projects in the School are numerous. Many undergraduate students are hired for summer research positions in the School, and there are also opportunities for part-time work during the academic year.

"4+1" Engineering/MBA Program

Students in any of the School of Engineering's undergraduate degree programs who complete the minor in Business Administration also will have completed the foundation courses for the MBA program at Alfred University. These students can obtain an MBA at Alfred in one year of graduate study.

Engineering/Law

Engineering graduates are well prepared for the study of law, including patent law. Students who have an interest in engineering/law should discuss this option with their advisor as early as possible in their program.

College of Business

The College

Mission Statement

The College of Business advances Alfred University's mission and goals in providing intellectual leadership through teaching, research and service. We provide active-learning driven educational programs in business management to interdisciplinary undergraduate and graduate students who value an intimate, interactive, student-centered learning environment. We develop our students into ethical business leaders who can think critically and communicate effectively in both domestic and global arenas. Our faculty conducts discipline based, applied and instructional research that bridge the gap between business theory and practice.
In support of this mission our undergraduate learning goals are:

Leadership - Our graduates will understand the situational context of leadership. They will be able to initiate collaboration with team members in identifying and achieving common objectives.
Ethical Professional Behavior - Our graduates will understand the need for ethical practices in business.
International Business Environment - Our graduates will have an awareness and understanding of the legal, political, social, economic, and cultural environments facing international business.
Critical Thinking - Our graduates will be able to gather and analyze relevant information to identify problems and opportunities and to achieve creative and effective results.
Knowledge of Business Functions - Our graduates will understand and apply core business functions:

- Management
- Accounting
- Economics
- Marketing
- Management Information Systems (MIS)
- Finance
- Quantitative methods
- Global business/second language
- Legal environment of business

Productive Communication - Our graduates will be effective communicators. They will be able to exchange and interpret verbal, written, and expressive messages.

College of Business students can obtain a Bachelor of Science degree with a major in Accounting, Business Administration, Finance or Marketing. The majors in the College of Business provide options within a sound liberal-professional education suitable for many post-graduation objectives ranging from immediate entry into the job market to graduate school. Alfred University's program emphasizes leadership development and active "hands-on" learning. All students complete a Field Experience requirement in consultation with their advisor. AU's environment provides an opportunity for leadership development with a mix of curricular and co-curricular activities which provide students with opportunities to attain distinction.

The undergraduate business program at AU is professionally accredited by AACSB International - The Association to Advance Collegiate Schools of Business. AACSB is a not-for-profit corporation of educational institutions, corporations and other organizations devoted to the promotion and improvement of higher education in business administration and management.

Of the approximately 1200 institutions of higher learning in the United States which offer business degrees, about one third are accredited by AACSB-International. AACSB accreditation allows students to satisfy graduate school foundation equivalents for several of the nation's leading graduate school programs offering the MBA degree.

The College of Business has a variety of organizations to enrich student experience. These include the Financial Management Association, American Marketing Association, Association of Information Technology Professionals, Students in Free Enterprise, the Society for Human Resource Management, Phi Beta Lambda (Future Business Leaders), and the Institute of Management Accountants. In addition, the college has a Student-managed Investment Fund (SMIF) which allows students to participate in managing an active portfolio while gaining academic credit. The College also has national honor societies that recognize superior academic achievement by the students. These organizations include chapters in Alpha Iota Delta National Honor Society in Decision Sciences, Beta Gamma Sigma (exclusively for AACSB accredited schools), Delta Mu Delta Honor Society in Business Administration, Financial Management Association in Finance, Mu Kappa Tau in Marketing, the Pacioli Honor Society in Accounting, and the Omicron Delta Epsilon Honor Society in Economics.

Recent Alfred University graduates have attained positions in major international, national and regional accounting firms (PricewaterhouseCoopers, KPMG, Ernst & Young, , Crowe Horwath, EFP Rotenberg, , Bonadio CPA's The Bonadio Group), in the financial services industry (Travelers, Bank of America, Dun and Bradstreet, Commercial Metals Company, General Electric Commercial Finance, Merrill Lynch), in the information services arena (Hewitt Associates), in marketing-oriented companies (ADP, AT&T), and in technology oriented firms (About-Thettuman Internet, Citadel Communications, IBM Global Services). A number of recent graduates also chose to pursue graduate or professional degrees at schools such as Albany Law School, Alfred University, Long Island University, Pace University, Purdue University, Rochester Institute of Technology, Schiller International University, University at Buffalo School of Law and University of Scranton.

Degree Programs and General Education Requirements

The **Business Administration** major prepares students for professional careers in areas such as accounting, business economics, family business, finance, management, marketing, management information systems, international business and entrepreneurship. Each business administration student chooses a faculty advisor who not only helps him or her explore career options but also recommends courses to be taken over the sophomore, junior and senior years. The Business Administration major provides a high degree of flexibility. In consultation with a faculty advisor, a student is encouraged to explore career options, including graduate school, and to select business and non-business electives that provide a professional focus.

The **Accounting** major prepares students to become professional accountants. Those students interested in public accounting are encouraged to pursue the license to become a Certified Public Accountant (CPA); those interested in corporate or governmental accounting are encouraged to seek designation as a Certified Management Accountant (CMA). All students are urged to augment their accounting curriculum with a minor or coursework in those areas which are in great demand in accounting, such as Management Information Systems (MIS).

The **Marketing** major recognizes the importance of design in the professional practice of marketing. Through a partnership with the Alfred University School of Art and Design, marketing majors take a required course in Visual Communications. Through the marketing curriculum students are complete projects in new product development, service learning, and participate in the student organization Students of Marketing at Alfred – AMA (SOMA-AMA).This partnership allows students to benefit from our internationally recognized faculty in the School of Art and Design.

The **Finance** major emphasizes fundamental accounting and finance concepts, theories and practice to promote well-informed financial decision-making. It prepares students for a large number of today's appealing and rewarding careers in business and industry as well as provides an excellent background for graduate programs. Students in the University's finance program are actively sought by corporate recruiters who know the students have been well prepared for the world of contemporary finance. Many finance students become financial analysts and managers. Others enter the consulting or legal professions or develop careers in the various occupations related to investment activity or financial institutions.

The College also offers **minors** in Accounting, Business Administration (non-College of Business students only), Economics, Family Business and Entrepreneurship, Finance, Management Information Systems, and Marketing. College of Business students may minor in fields within or outside of the College of Business. Lists of courses required for various minors are printed elsewhere in this catalog.

The general course requirements for all College of Business students are listed below. Enrollment in business and economics courses numbered 300 or above requires junior standing (60 semester credit hours).

General Course Requirements – Professional Core

ACCT 211	Financial Accounting	3
ACCT 212	Managerial Accounting	3
BUSI 105	Business Perspectives	1
BUSI 457	International Business	
or FIN 458	International Financial Management	
or ECON 412	International Economics	
or MKTG 489	International Marketing	3
BUSI 499	Policy Formulation and Administration	3
ECON 300-400	one upper-level course in Economics	3
FIN 348	Managerial Finance	3
LAW 241	The Legal Environment of Business	3
MGMT 328	Management and Organizational Behavior	3
MGMT 484	Operations Management	3
MIS 190	Introduction to Management Information Systems3	
MKTG 221	Marketing Principles and Management	3

Arts and Sciences Core

Quantitative Methods

BUSI 113	Business Statistics	3
BUSI 261	Operations Research	3
MATH 107	Calculus Concepts for the Social Sciences	4
MIS 101	Computer Applications for Business	3

Communications

ENGL 101	Writing I	4
ENGL 102	Writing II[1]	4

Economics

ECON 201	Introduction to Economics and Markets[2]	4
ECON 202	Principles of Macroeconomics	3

Social Sciences – A minimum of 3 credit hours chosen from among Anthropology, ENVS 102 (Environmental Studies), Political Science, Psychology, or Sociology (SOCI 230 and POLS 230, PSYC 220 do not fulfill this requirement).
Natural Sciences – A minimum of 3 credit hours chosen from among Astronomy, Biology, Chemistry, ENVS 101 (Environmental Studies), Geology, Physics, or Science.
Creative Disciplines – A minimum of 3 credit hours chosen from among Art, Communications Studies, Creative or Imaginative Writing, Dance, Design, Film, Music, or Theatre.
Humanities – A minimum of 3 credit hours chosen from among Foreign Languages, History, Literature, Philosophy (including Logic), or Religion.

Additional Requirements:

- Students are required to complete a Field Experience option selected from the following:
  1. Approved Internship (BUSI 485)
  2. Advanced courses with Active Learning Component
- Satisfy the University's Physical Education requirement.
- Satisfy the University's Global Perspective requirement
- Maintain at least a 2.0 grade point average overall and 2.0 combined GPA in business and advanced economics courses.
- Complete a minimum of 30 credit hours in upper-division business courses.

1. Writing requirements are specified in the Catalog under General Education Requirements for Liberal Arts and Sciences, Basic Competencies, Written Communication.
2. Principles of Economics (ECON 201 and ECON 202) may be counted as either a business course or as an arts and sciences course at the discretion of the student. All upper division economics courses are counted as business courses.

Curriculum Requirements for Business Majors

Business Administration Major

Students opting for this major must take the courses listed above in the professional core, additional elective courses in business, and a field experience, to total a minimum of 48 credit hours. They must also take those courses listed in the arts and sciences core, plus enough electives in the arts and sciences to total a minimum of 60 credit hours. A total of 120 credit hours, including acceptable transfer credit (but excluding physical education requirements) is required for graduation.

Accounting Major

Given that course requirements for taking the CPA examination are set by state law, the Accounting major's curriculum is tightly structured. Accounting majors must take all those courses listed in the arts and sciences core, plus enough electives in that area to total a minimum of 60 credit hours. They must also take all the courses listed in the professional core plus all courses listed below:

ACCT 361	Intermediate Accounting I	3
ACCT 362	Intermediate Accounting II	3
ACCT 371	Personal Income Tax	3

ACCT 372	Cost Accounting	3
ACCT 441	Auditing Theory and Practice	3
ACCT 462	Applications of Advanced Accounting Principles	3
FIN 300 +	one additional upper-level Finance course	3
LAW 442	Commercial Law	3

Accounting majors must receive a grade of "C" or better in all accounting courses and in each of those accounting courses listed above for the major.

Students who opt to continue into the MBA-Accounting Program must complete an application and provide two letters of recommendation. Students whose grade point average is 2.5 or greater will not be required to submit official GMAT scores or letters of recommendation.

Marketing Major

Students who wish to major in Marketing must complete the Professional Core and the Arts and Sciences Core plus enough arts and sciences electives to total a minimum of 60 credit hours. They must complete the University Physical Education and Global Perspective requirements, and earn a total of 120 credit hours (excluding the physical education requirements), and complete the following Marketing requirements:

ART 288	Visual Communications I	4
MKTG 452	Marketing Research	3
MKTG 479	Consumer Behavior	3
MKTG 486	Promotion Strategy	3
MKTG 499	Strategic Marketing Management	3
Plus, choose 3-4 credit hours from the following:		
MKTG 453	Marketing Practicum	3
MKTG 482	Sales Management	3
MKTG 489	International Marketing	3
MKTG 460	Seminar in Marketing	3

Finance Major

Students who wish to major in Finance must complete the Professional Core and the Arts and Sciences Core, plus enough arts and sciences electives to total a minimum of 60 credit hours. They must complete the University Physical Education and Global Perspective requirements, and earn a total of 120 credit hours (excluding the physical education requirements), and complete the following Finance requirements:

ACCT 361	Intermediate Accounting I	3
BUSI 205	Student Managed Investment Fund	1
BUSI 206	Student Managed Investment Fund Lab	1
FIN/BUSI 410	Introduction to Financial Planning	3
FIN 454	Security Analysis	3
FIN 455	Business Financial Decisions	3
FIN 458	International Financial Management	3
FIN 460	Seminar in Finance	3
Plus, choose one of the following:		
ECON 331	Money and Banking	3
FIN/ECON 445	Managerial Economics	3
FIN 453	Financial Markets and Institutions	3
FIN 457	Portfolio Management	3

Minors in the College of Business

The College of Business has developed minors in Accounting, Arts Management, Business Administration, Economics, Family Business and Entrepreneurship, Finance, Management Information Systems, and Marketing. Students completing any of these minors must complete at least half of their course work at Alfred University. Courses taken elsewhere numbered 300 or higher at Alfred University must be taken at a comparable baccalaureate degree granting school. A grade point average of a "C" (2.0) or better must be attained in the courses for completion of minor.

Accounting

Non-Accounting majors can pursue a minor in accounting. The Accounting Minor Program provides students with a background in financial and managerial accounting, taxation and financial statements analysis. The minor also provides preparation for graduate programs in accounting, business and law.

Accounting Minor

ACCT 211/212	Financial Accounting/Managerial Accounting	3/3
ACCT 361	Intermediate Accounting I	3
BUSI 113	Business Statistics (or equivalent)	3
BUSI 261	Operations Research	3
ECON 201	Introduction to Economics and Markets	4
ECON 202	Principles of Macroeconomics	3
MATH 107	Calculus Concepts for the Social Sciences	4
Plus two courses from among the following:		
ACCT 362	Intermediate Accounting II	3
ACCT 371	Personal Income Tax	3
ACCT 372	Cost Accounting	3
ACCT 462	Applications of Advanced Accounting Principles	3

The Arts Management Minor provides an interdisciplinary approach to the business of art and management of arts organizations. Students have the opportunity to learn and explore the theoretical content and practical skills that engage arts professionals managing individual businesses, serving community arts organizations, and managing not-for-profit arts organizations in the visual, performing, and literary arts. The Arts Management minor is jointly offered by the College of Business, the School of Art and Design, and the College of Liberal Arts and Sciences and is open to all AU students. Students have one advisor from business and one from the arts content area.

Requirements for the Arts Management minor

ACCT 211	Financial Accounting	3
BUSI 485	Internship (specific to Arts Management)	4
ECON 201	Introduction to Economics and Markets	4
MKTG 221	Marketing Principles and Management	3
Choose one additional business course from the following:		3
BUSI 201	Family Business Management	
BUSI 439	Entrepreneurship in the 21st Century	
Choose three arts course, at least one from each Section (A and B, below)		8-12
Total credit hours		**25-29**

Section A- History and Theory

ARTH	Art History (any course)	2-4
DANC 211	Dance History	4
ENGL 241	Survey of American Literature	4
IART 460	Interdisciplinary Art Seminar	4
MUSC 110	Music Appreciation	4
MUSC 211	World Music	4
PHIL 283	Philosophy of the Arts I	4
PHIL 300	Topics in Philosophy (consult with advisor)	1-4
THEA 110	Introduction to Theatre	4
THEA 210	The Performing Arts: A Global Perspective	4
THEA 311	Theatre History I	4
THEA 200/300/400	Special Topics in Theatre (consult with advisor)	1-4

Section B-Applied and Studio Skills Courses

ART 111	Beginning Drawing	4
ART 121	Beginning Sculpture	4
ART 133	Basic Black and White Photography	4
ART 151	Introduction to Ceramics	4
ART 288	Visual Communications I	4
ART 389	Exhibition Design (open only to Art and Design students)	2
DANC	any Dance course	1-4
ENGL 200	Special Topics in Writing	2-4
ENGL 202	Fiction Workshop	4
ENGL 205	The Play's the Thing! - Playwriting	4
ENGL 206	Poetry Workshop	4
ENGL 372	Dramatis Personae	4
ENGL 373	Auto/Biographical Acts: Studies in Creative Nonfiction	4
ENGL 374	Writing the Short Story	4
ENGL 375	Writing Formal Poetry	4
ENGL 376	Writing the Long Poem or Poetic Sequence	4
IART	Interdisciplinary Art (any course)	1-4
THEA 120	Technical Theatre	4
THEA 220	Principals of Theatrical and Performance Design	4
THEA 230	Stage Management Fundamentals	4
THEA 240	Acting I	4
THEA 270	Play Production	1-4
THEA 200/300/400	Special Topics (consult with advisor)	1-4

Business Administration Minor and 4 + 1 Minor for MBA Program

The College of Business offers a 4 + 1 minor for non-College of Business students. By completing the appropriate foundation courses at the undergraduate level, a student may successfully complete the requirements for a Masters in Business Administration (MBA) at Alfred University in one year after receiving his or her undergraduate degree. A grade point average of a C (2.0) or better must be attained in the courses for completion of minor. Students completing the minor are thus eligible to complete the 30 credit hour MBA at Alfred University. The GMAT will be waived for students who complete the minor and have a minimum cumulative grade point average of 2.5. The 4 + 1 Program does not guarantee admission to the MBA Program. Students must apply for admission and submit all required application materials.

Required Courses:

ACCT 211/212	Financial Accounting/Managerial Accounting	3/3
BUSI 113*	Business Statistics	3
ECON 201**	Principles of Microeconomics	4
ECON 202	Principles of Macroeconomics	3
FIN 348	Managerial Finance	3
MGMT 328	Management and Organizational Behavior	3
MGMT 484	Operations Management	3
MKTG 221	Marketing Principles and Management	3

*** POLS/SOCI 230 or PSYC 220 may be substituted for BUSI 113**
****ENGR 206 may be substituted for ECON 202**

Economics

Economics provides an excellent background for work in the fields of banking, finance, and other areas where an understanding of economics is required.
The balanced coordination of economics and business administration courses is also appropriate for entry into a variety of civil service positions with the federal, state, and local government or entry into graduate school.

Economics Minor

ECON 201	Introduction to Economics and Markets	4
ECON 202	Principles of Macroeconomics	3
ECON 460	Seminar in Economics	3
ECON 300+	Upper-level Economics Course	3
ECON 300+	Upper-level Economics Course	3

Family Business and Entrepreneurship

Students interested in the management of a Family Business or in the field of Entrepreneurship should consider courses in Entrepreneurship, Family Business Management, Estate Planning, and New Product Development. Such courses are often taught as seminars focusing on applied learning and interaction with professionals. In addition to these courses, students are required to complete at least a 3 credit-hour internship (in a family business).

Family Business and Entrepreneurship Minor

ACCT 211	Financial Accounting	3
BUSI 201	Family Business Management	3
BUSI 439	Entrepreneurship in the 21st Century	3
BUSI 485	Internship (in a family business)	1-4
ECON 201	Introduction to Economics and Markets	4
LAW 241	The Legal Environment of Business	3
MKTG 221	Marketing Principles and Management	3
Plus three (3) credit hours from among the following courses:		
ACCT 371	Personal Income Tax	3
BUSI 460	Seminar in Business	3
FIN 410	Introduction to Financial Planning	3
LAW 442	Commercial Law	3

Finance

Non Finance majors can pursue a minor in finance. The minor provides the opportunity for students to cultivate the critical thinking skills and develop the ability to apply financial analysis to a wide range of business finance issues.

Finance Minor

ACCT 211	Financial Accounting	3
ACCT 212	Managerial Accounting	3
ECON 201	Introduction to Economics and Markets	4
ECON 202	Principles of Macroeconomics	3
FIN 348	Managerial Finance	3
FIN410	Introduction to Financial Planning	3
FIN 458	International Financial Management	3
FIN 454	Security Analysis	
Plus six (6) credit hours from among the following courses:		
BUSI 205	Student Managed Investment Fund	1
BUSI 206	Student Managed Investment Fund Lab	1
FIN 453	Financial Markets and Institutions	3
FIN 455	Business Financial Decisions	3
FIN 460	Seminar in Finance	3

Management Information Systems (MIS)

The Management Information Systems curriculum provides students with a thorough grounding in Management Information Systems (MIS) concepts. Using MIS as a foundation, students are introduced to the decision-making process using the latest computer-based tools. The goal is to prepare students to function efficiently in today's heavily computer-dominated business environment.

MIS Minor

ECON 201	Introduction to Economics and Markets	4
MGMT 328	Management and Organizational Behavior	3
MIS 290	Computer Programming (or equivalent)	3
MIS 465	Data Base Management Systems	3
MIS 466	Systems Analysis and Design	3
MIS 410	Inter-Networking Fundamentals	3
MIS 460	Seminar in Information Theory	3

Marketing

Non Marketing majors can pursue a minor in marketing. The Marketing minor is recommended for business and non-business students who want to consider sales, advertising, and marketing careers, or want to complement their major area of study.

Marketing Minor

BUSI 113*	Business Statistics	3
ECON 201	Introduction to Economics and Markets	4
MKTG 221	Marketing Principles and Management	3
MKTG 479	Consumer Behavior	3
Plus six credit hours from among the following courses:		
ART 288	Visual Communications I	4
MKTG 452	Marketing Research	3
MKTG 453	Marketing Practicum	3
MKTG 460	Seminar in Marketing	3
MKTG 482	Sales Management	3
MKTG 486	Promotion Strategy	3
MKTG 489	International Marketing	3
MKTG 499	Strategic Marketing Management	3

*** POLS/SOCI 230, or PSYC 220 may be substituted for BUSI 113**

Courses of Instruction

Note: This is a list of all approved courses that may be offered 2011-2013. The list of courses offered in any particular semester or summer term appear in the Class Schedule for that term on AU BannerWeb: (https://banweb.alfred.edu).

University Courses

OCST 301 - Study Abroad Preparation and Review 2 hours. Students acquaint themselves with the country and culture they will be visiting through readings related to their country, online monitoring of newspapers in the host country, and weekly discussions. Students are expected to be able to address a current world issue through the lens of their host country. Cross-cultural simulations are used to facilitate discussions of issues related to ethnocentrism and stages of cultural adjustment. During the class, and while they are abroad, students keep an online, weekly reflective journal. Health and safety issues are addressed as well as the details related to a trip abroad, such as passports and visas. A wrap-up class follows during the returning semester. Offered in the second-half of each semester (B-Block).

UNIV 101 - Campus Life Leadership Skills 1 hour. This course focuses on improving communication skills in working with both individuals and groups. Topics to be covered include: group dynamics, trust, valuing, the building of relationships, listening skills, assertiveness, confrontation skills, and resolving interpersonal conflicts.

UNIV 102 - Career and Professional Success 1 hour. In this course students develop and hone their job search skills. This includes creating and implementing a job search plan, resume and cover letter development, professional etiquette and business protocol, company research, effective networking, "dressing for success," interviewing and salary negotiation, and transitioning from college to the world of work. Students have an opportunity to connect both formally and informally with employers, alumni, and students through dinners, networking receptions, career events, and panel discussions.

UNIV 105 - Peer Leadership in Health and Wellness Education 2 hours. Provides students with the knowledge foundation and skills needed to become leaders in peer education and mentoring through a combination of instruction and service learning opportunities. Covers content specific to health and wellness issues faced by college students. Required for students wishing to become presenters in the Health and Wellness peer education program and the Student Athlete Mentor (SAMS) program.

UNIV 110 - Drawn to Diversity 2 hours. This course uses art and pop culture to explore issues of equality. The course features a service-learning/community outreach component in which students share their in-class research through interactive presentations throughout the semester.

UNIV 115 – Concepts of Service Learning 3 hours. This course combines weekly class meetings with weekly service hours spent in the local community in an exploration of what it means to be engaged in service learning as a way of accomplishing and demonstrating civic engagement. Each student selects a service project to satisfy the main requirement of at least 4 hours of service work per week. The class meets together 1 hour per week to discuss assigned readings and each other's reflections, written and oral. As a group, students create a poster for public presentation outlining service experiences in the community and addressing a research question about Service Learning/Civic Engagement.

UNIV 205 - Living Well with Stress 2 hours.Students investigate evidence-based interventions for stress management through a combination of classroom and experiential learning. Topics include mindfulness as a tool for recognizing and reducing personal stressors.

Physical Education

Activity Courses

Note: All 100-level PHED courses and some Equestrian and Dance courses can be applied to the University Physical Education requirement.

PHED 100 - Special Topics 2 hours. Offerings vary year to year depending on the availability of faculty with expertise in the particular lifetime sport activity. Typical offerings might be Cross Country Skiing, Orienteering/ Snowmobiling, Cycling.

PHED 101 - Cross Training 2 hours. Combined weight training exercises and cardiovascular activities designed to improve strength. flexibility, cardiorespiratory fitness, and body composition.

PHED 103 - Cardiovascular Fitness 2 hours. An exposure to a variety of aerobic activities with emphasis on improved cardiovascular fitness and knowledge of scientific principles needed to attain an improved level of cardiovascular fitness.

PHED 105 - Beginning Badminton 2 hours. Emphasis on the effective use of the racquet, court coverage and position play, strategy, rules, and historical background. Opportunity for regular student participation in singles and doubles games. Class tournaments arranged.

PHED 108 - Introduction to Yoga 2 hours. Derived from the Sanskrit word yuj, "yoga" means "union". To practice yoga is to reunite body, mind, and spirit. This course will focus on the first of the Three Stages of Kripalu Yoga practice. Stage One introduces yoga postures (asanas) and breathing techniques (pranayama). Special attention will be given to safety, alignment, and the coordination of breath and movement. The only prerequisite is a commitment to develop a daily practice.

PHED 112 - Beginning Golf 2 hours. Basic fundamentals of swing, grip and putting introduced. Opportunity for practical application indoors followed by several experiences at a golf course. Rules and etiquette of the game fully covered.

PHED 115 - Total Fitness 2 hours. Through lecture and participation in a specific and progressive exercise program, students experience what total fitness is, why it is important to establish life-long skills, and how to safely and effectively increase their levels of fitness.

PHED 118 - Weight Training 2 hours. A scientific look at several types of weight training programs and selection of one, based on individual needs, to be used throughout the semester.

PHED 122 - Beginning/Intermediate Racquetball 2 hours. A fundamentals and basic court strategy course exposing students to games of one wall and four wall racquetball. Rules and court etiquette stressed.

PHED 125 - Karate 2 hours. Physical conditioning and discipline through experiencing offensive and defensive karate techniques. Students become familiar with common self-defense maneuvers and are introduced to the Kata (formal exercises of martial arts). Included are martial arts history, tradition and etiquette.

PHED 129 - Beginning/Intermediate Swimming 2 hours. An exposure to the basic strokes with emphasis on achieving confidence in the water. Opportunity to perfect strokes and increase endurance.

PHED 130 - Advanced Swimming 2 hours. Advanced strokes and swimming skills are presented along with some racing and diving techniques. Prerequisite: PHED 129 or permission of instructor.

PHED 131 - Lifeguard Training 2 hours. An American Red Cross course providing the necessary minimum skills and knowledge individuals need to qualify and serve as a non-surf lifeguard. Not intended to be a complete lifeguard training program. Prerequisite: PHED 130 or passing qualifying test.

PHED 133 - Basic Tennis 2 hours. Group presentation of basic strokes, simple strategy and rules, provides beginners with early opportunities for singles and doubles play. Students are screened by instructor to determine beginner's status.

PHED 175 - Frisbee: Ultimate and Golf 2 hours. The history, development, and science of the modern Frisbee will be presented. Basic Frisbee skills will be taught, including throws and catches. Students will learn the rules, etiquette and field set-up, as well as engage in ultimate Frisbee with classmates. The lifetime sport of Frisbee Golf will be also be learned and played.

Theory/Classroom Courses

(These Courses do not apply to the University PE Requirement)

PHED 200 - Topics in Physical Education 2-4 hours. Classroom/theory topics are covered. Topics vary from year to year. (Does not apply to University PE requirement.)

PHED 291 - Philosophy, Principles, and Organization of Athletics 3 hours. Fundamental concepts and principles of athletics in education are covered and administration, management and organizational aspects of school sports discussed.

PHED 295 - Psychology of Coaching 3 hours. This course covers topics such as learning, performance, attention, anxiety, motivation, aggression, arousal, and the social-psychological dynamics of participation in sports.

PHED 311 - First Aid and CPR 2 hours. Basic level life support techniques including CPR, rescue breathing, and care of choking victim in conjunction with first aid techniques such as using a sling, splinting and bleeding control. Satisfies requirements for American Red Cross Professional Rescuer Certification.

PHED 312 - Theory and Technique of Coaching Football 2 hours. Theories of team offensive and defensive techniques, condition and training methods discussed. Practical experience is a part of the course. Coaching courses offered on a rotating basis.

PHED 313 - Theory and Technique of Coaching Basketball 2 hours. A complete coverage for the aspiring coach, including every phase of the game with special emphasis on fundamentals, offense, and defense and how to prepare a team totally for the entire season. Offered on a rotating basis.

PHED 315 - Theory and Technique of Coaching Lacrosse 2 hours. A complete coverage for the ambitious coach using the United States Lacrosse Coaches Association's Handbook of Coaching Techniques as guide. Special emphasis on the fundamentals of riding, clearing, offensive and defensive play for the individual as well as the team. Practical experience is part of the course. Offered on a rotating basis.

PHED 316 - Theory and Technique of Coaching Track and Field 2 hours. The fundamental concepts and principles of competitive track and field. Includes moderate amounts of physical participation in each event, complemented with lectures, loop films, and transparencies. Practical experience is a part of the course. Offered on a rotating basis.

PHED 317 - Theory and Technique of Coaching Soccer 2 hours. A complete coverage for ambitious coaches using the United States Soccer Federation coaching format. Special emphasis is given to the fundamentals of the game, tactics, and techniques of team play, and overall preparation for team play. Practical experience is a part of the course. Offered on a rotating basis.

College of Liberal Arts and Sciences

Anthropology

ANTH 110 - Cultural Anthropology 4 hours. This introductory course surveys the human condition in anthropological perspective. Emphasis is on the nature of culture, sociocultural evolution, human ecology, theoretical strategies, kinship, descent, gender, language, and belief systems. (E) (GP)

ANTH 120 - Human Origins 4 hours. An introduction to physical anthropology surveying evolutionary theory as applied to humans. Special emphasis on non-human primates, fossil man (hominid evolution) and the diversity of modern human populations. (E)

ANTH 200/300 - Special Topics 1-4 hours. An open course varying in content from year to year which allows concentration in specialized areas.

ANTH 302 - The Nacirema 4 hours. American culture and society in cross-cultural perspective. This course emphasizes themes observed by international visitors and by anthropologists in cross-national studies. ANTH 110 recommended as a prerequisite.

ANTH 303 - Health and Culture 4 hours. An examination of the interaction of culture and biology in the broad realm of physical and mental health and illness. Topics include non-Western healers and healing practices, theories of disease and healing, cultural psychiatry, and epidemiology. Prerequisite: ANTH 110. (GP)

ANTH 304 - Language and Culture 2 or 4 hours. An introduction to anthropological linguistics emphasizing the origin, nature and evolution of human language; the Sapir-Whorf hypothesis, sociolinguistics (especially the linguistic aspects of gender and class), and nonverbal behavior. Prerequisite: ANTH 110. Recommended: 200-level foreign language course. (GP)

ANTH 305 - Belize and the Caribbean 2 hours. (see BIOL 305) (GP)

ANTH 309 - Magic and Religion 4 hours. An examination of the diversity to be found among human religious beliefs and practices. Includes the relationship between magic, science and religion, the functions of witchcraft, divination and spirit possession and the role of religion in cultural revitalization. Prerequisite: ANTH 110 or permission of instructor. (GP) (Sufficient demand)

ANTH 312 - Violence and Culture 2 or 4 hours. Investigates violence in traditional and modern societies. Topics include ritualized violence, gender, the sociocultural construction and reinforcement of violent behavior in the United States, and programs aiming to reduce levels of violence. Prerequisite: ANTH 110 or SOCI 110 and junior or senior standing. (GP)

ANTH 320 - The Islamic World 4 hours. This course offers an overview of the Islamic World, broadly defined. Topics surveyed include tents of Islam, Islamic history, culture and society, gender, the arts, politics, and economics. Understanding Islam's spread and impact globally as well as the sources and nature of contemporary issues are important aspects of the course. (GP)

ANTH 400 - Special Problems in Anthropology 1-4 hours. An open course varying in content from year to year which allows concentration on such specialized areas as gender and society, anthropological theory and methods, native cultures of North America, demography, and the like. Prerequisites: SOCI 110 or ANTH 110 and junior or senior standing or permission of instructor. (Sufficient demand)

ANTH 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

ANTH 470 - Field Work 2-4 hours. Supervised on-site field work on an approved topic. Prerequisites: ANTH 110, junior or senior standing, and permission of instructor.

ANTH 495 - Global Issues Seminar 4 hours. (see GLBS 495) (GP)

Astronomy

ASTR 103 - Introductory Astronomy 4 hours. A general survey of astronomy including our solar system, the nature of stars, the structure of our galaxy, and finally, an examination of other galaxies, quasars and other cosmic objects. (F2)

ASTR 107 - Elementary Astronomy Lab 2 hours. Observation, supplemented by discussion of topics such as types of telescopes and auxiliary equipment, use of the Observatory, celestial coordinates and the use of reference materials, astronomical photography. (F1)

ASTR 200 - Special Topics in Astronomy 1-4 hours. Topics vary from year to year. (Sufficient demand)

ASTR 302 - Planetary Science 2 hours. A quantitative and comparative study of the nine known planets. Includes the physics of the interiors, surfaces, and atmospheres of the terrestrial planets/moons, and of the atmospheres and rings of the Jovian planets. Also includes the physics of planetary and solar system formation. Prerequisite: One year of college level physics. (Sufficient demand)

ASTR 303 - Stellar Astronomy 3 hours. Part of an astronomy sequence recommended for students in the physical sciences and area science teachers. Emphasis on the observational and theoretical basis for understanding stellar structure and evolution, beginning with the Sun. Prerequisite: One year of college level physics and MATH 151. (Sufficient demand)

ASTR 304 - Galactic Astronomy and Cosmology 4 hours. Part of an astronomy sequence recommended for students in the physical sciences and area science teachers. Emphasis on the observational and theoretical basis of our knowledge of the Universe on the large scale. Topics include the structure of the Milky Way Galaxy, active and passive galaxies, and Cosmology. Prerequisite: One year of college level physics and MATH 151. (Sufficient demand)

ASTR 307 - Observational Astronomy 2 hours. An introduction to astronomical observing techniques and data reduction. Emphasis placed on image acquisition and manipulation to determine things like the morphologies, distances, motions, and luminosities of various objects. This course is intended for students with interest in astronomy and some background in physics and mathematics. Prerequisite: One semester of college level physics; pre-or co-requisite: MATH 151. (Sufficient demand)

ASTR 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

Athletic Training

ATHT 103 - Prevention and Care of Athletic Injuries 4 hours. An introduction to the athletic training profession, inflammation process, anatomy review, rehabilitation, recognition and prevention of common athletic injuries, taping, rehabilitation and evaluation skills in a laboratory portion, including fifty (50) clock hours of athletic training room observation, cleaning duties, and ACI assignments. A lab fee may be assessed.

ATHT 104 - Introduction to Clinical Experiences in AT 1 hour. An introduction to practical experience courses with supervision provided by a Certified Athletic Trainer in an athletic training environment at Alfred University. A minimum of 50 clock hours is required. Prerequisites: PHED 311, ATHT 103.

ATHT 110 - Medical Sciences 2 hours. This course provides a general overview of career opportunities in athletic training and other health/wellness related fields. Emphasis is placed on the domains of athletic training and application of them with regard to health and wellness in active populations.

ATHT 111 - Emergency Medicine in Athletic Training 2 hours. Basic level life support techniques including CPR, rescue breathing, and care of choking victim in conjunction with first aid techniques such as using a sling, splinting controlling bleeding and ambulation. Satisfies requirements for American Red Cross Professional Rescuer Certification.

ATHT 190 - Principles of Strength Training and Reconditioning 2 hours. This course is intended to cover the essentials of strength training and reconditioning to prepare a student who is interested in becoming a Certified Strength and Conditioning Specialist or a Certified Personal Trainer. One hour of lecture and two hours of physical activity each week. (PE Requirement)

ATHT 200/300 - Special Topics 1-4 hours. Topics of interest in Athletic Training are explored. Topics vary from term to term.

ATHT 201 - Clinical Experience in Athletic Training I 1 hour. Practical experience supervised by a Certified Athletic Trainer in an athletic training environment at Alfred University. A minimum of 50 clock hours is required. Emphasis on clinical proficiencies of basic first aid, wound care, preventative taping and wrapping, record keeping, and ACI assignment during sports season. Prerequisites: Formal retention within ATEP, ATHT 103 and PHED 311. A lab fee may be assessed.

ATHT 202 - Clinical Experience in Athletic Training II 1 hour. Practical experience supervised by a Certified Athletic Trainer in an athletic training environment at Alfred University. A minimum of 100 clock hours is required. Emphasis on clinical proficiencies pertaining to etiology, pathology, treatment and management of athletic injuries and illnesses and ACI assignments during sports season. Prerequisites: Formal retention within ATEP, ATHT 103 and 210. A lab fee may be assessed.

ATHT 205 - Structural Kinesiology 2 hours. This course focuses on the anatomical and mechanical components of human movement. An emphasis will be placed on the functional anatomy of the musculoskeletal and articular systems. Additional focus will be placed on examining the neuromuscular system and basic biomechanical principles associated with human movement. Prerequisite: BIOL 107.

ATHT 210 - Advanced Athletic Training 3 hours. The study of specific concerns related to the field of athletic training in order to develop a thorough understanding of the etiology, pathology, treatment and management of athletic injuries and illnesses. Prerequisite: ATHT 103.

ATHT 222 - Nutrition for Human Performance and Exercise 2 hours. This course focuses on human nutrition and metabolism, with particular emphasis on the implications of nutrition on human performance and physical activity. (F2)

ATHT 265 - Integrative Therapeutic Applications I 4 hours. This course is designed to provide students with an introduction to the applications of therapeutic modalities integrated with appropriately applied therapeutic exercise techniques in professional practice for the prevention, care, and rehabilitation of athletic injuries. Prerequisite: ATHT 210.

ATHT 276 - Integrative Therapeutic Applications II 4 hours. This course is designed to provide students with an advanced study of the applications of therapeutic modalities integrated with appropriately applied therapeutic exercise techniques in professional practice for the prevention, care, and rehabilitation of athletic injuries. Prerequisite: ATHT 265.

ATHT 301 - Clinical Experience in Athletic Training III 1 hour. Practical experience supervised by a Certified Athletic Trainer in an athletic training environment at Alfred University. A minimum of 100 clock hours is required. Emphasis on clinical proficiencies of advanced taping and bracing techniques, medication record keeping, the asthmatic athlete, skin conditions, and nutritional consideration, ACI assignment during sports season. Prerequisites: Formal retention within ATEP, ATHT 103 and 210. A lab fee may be assessed.

ATHT 302 - Clinical Experience in Athletic Training IV 1 hour. Practical experience supervised by an Approved Clinical Instructor (ACI)/Certified Athletic Trainer in an athletic training environment at Alfred University or affiliated site. A minimum of 150 clock hours is required. Emphasis on clinical proficiencies to advanced understanding of the etiology, pathology, treatment and management of athletic injuries and illnesses. Clinical assignment to ACI during season. Prerequisites: Formal retention within ATEP, ATHT, 334 and 356. A lab fee may be assessed.

ATHT 334 - Physical Evaluation of the Lower Extremity 4 hours. This course is designed to provide students with an intensive, thorough study of orthopedic evaluation techniques used within the clinical and on-field environments to assess athletic related injuries to the lower extremity sustained by physically active individuals. Normal joint kinematics and subsequent pathomechanics will also be discussed. Prerequisites: Formal retention within ATEP and ATHT 210; or permission of instructor.

ATHT 348 - Physical Evaluation of the Upper Extremity 4 hours. This course is designed to provide students with an intensive, thorough study of orthopedic evaluation techniques used within the clinical and on-field environments to assess athletic related injuries to the upper extremity sustained by physically active individuals. Normal joint kinematics and subsequent pathomechanics will also be discussed. Prerequisites: Formal retention within ATEP and ATHT 210; or permission of instructor.

ATHT 356 - Theory and Techniques of Therapeutic Modalities 4 hours. This course presents therapeutic modality theory as well as application of techniques necessary in their planning and implementation. Prerequisites: Formal retention within ATEP and ATHT 210.

ATHT 367 - Theory and Techniques of Therapeutic Exercise 4 hours. This course is designed to provide students with treatment theories and techniques necessary in the planning and implementation of therapeutic exercise for prevention, care, and rehabilitation of athletic injuries. Prerequisites: Formal retention within ATEP and ATHT 356.

ATHT 392 - Biomechanics 3 hours. The study of skeletal, joint, and muscular systems in the human body, including analysis of muscular-skeletal movement applied to exercise, sports, and dance-related skills. Emphasis will be placed on the principle of rigid body mechanics (statics and dynamics), Newton's Laws and how they govern human movement in sport and exercise. Prerequisite: Concurrent enrolment in ATHT 205.

ATHT 393 - Physiology of Exercise 3 hours. The study of physiological changes in the body with exercise, sports, and dance activities. Emphasis on neuromuscular, cardiovascular, and respiratory systems, and their adaptations to training. Prerequisite: BIOL 108 or permission of instructor.

ATHT 401 - Clinical Experience in Athletic Training V 1 hour. Practical experience supervised by a Certified Athletic Trainer in an athletic training environment at Alfred University. A minimum of 150 clock hours is required. Emphasis on clinical proficiencies of advanced assessment and management of injuries to the lower extremity, as well as therapeutic modalities. ACI assignment during sports season. Prerequisites: Formal retention within ATEP, ATHT 334 and 348. A lab fee may be assessed.

ATHT 403 - Medical Aspects of Athletic Training 1 hour. This is a course for senior athletic training students. It is designed to expose the athletic training student to the necessary recognition, evaluation and treatment skills needed to assess a variety of medical conditions affecting athletes and physically active individuals. Emphasis will be on developing clinical proficiencies of advanced assessment related to pathologies and disorders affecting the endocrine, exocrine, respiratory and autonomic nervous systems. Prerequisite: Concurrent enrollment in ATHT 495.

ATHT 420 - Pharmacology in Athletic Training 2 hours. This course is designed as an introduction to pharmacology. Pharmacodynamics, pharmacokinetics, drug interactions and reactions will be discussed. Extra attention will be given to drugs commonly used in sports medicine. This course is offered primarily for athletic training majors. Prerequisite: BIOL 201 or permission of instructor.

ATHT 432 - Administrative Aspects of Athletic Training 3 hours. An in-depth study of administrative techniques including budgeting, personnel, and the use of computers in the athletic training setting. Prerequisite: Formal retention within ATEP.

ATHT 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

Biology

BIOL 106 - Field Botany 4 hours. Introduction to the taxonomy and adaptations of native and introduced plants in western New York ecosystems. Students will learn identification of species through laboratory and field studies. Biodiversity of natural ecosystems will be investigated and compared. Biology majors may receive Biology elective credit by fulfilling additional requirements. (F1)

BIOL 107 - Human Anatomy and Physiology I 4 hours. This course examines the bases of the human body in health and disease. Dissection of the cat and other mammalian organs, and a series of physiology exercises investigate structure and function from cell to organ system of the integumentary, skeleto-muscular, nervous-sensory and endocrine systems. Three lecture/discussions and one three-hour laboratory. (F1)

BIOL 108 - Human Anatomy and Physiology II 4 hours. A continuation of Biology 107 with a focus on the 'internal' organ systems, including the circulatory, lymphatic, respiratory, digestive, urinary and reproductive. Three lecture/discussions and one three-hour laboratory. (F1)

BIOL 109 - Health in History 4 hours. An examination of how human health and disease has changed the course of history. This course will describe many prominent diseases from each of the major disease categories (bacterial, viral, genetic, and environmental) and will explore how human disease has affected different societies. Four hours lecture. (F2) (GP)

BIOL 110 - Scientific Terminology 2 hours. Understanding scientific terminology is approached through a focus on Greek and Latin word elements and work-building strategies for learning to spell, pronounce, interpret and use terminology properly in scientific literature, college and graduate school, professions, and increasingly in the public press.

BIOL 111 - Modern Biology with Human Implications 4 hours. A consideration of yourself as a living organism with emphasis on how your body functions, your genetics and evolutionary legacies, and your ecological relationship to other organisms that inhabit this planet. Three lectures and one two-hour laboratory. This is an introductory course primarily for students majoring in areas other than Biology who wish to fulfill a general education requirement in the natural sciences with laboratory. (F1)

BIOL 119 - Physiology of Aging 4 hours. Examines both the expected changes in normal human aging as well as the pathologies of the aging process. Topics covered include digestive, cardiovascular, sensory, hormonal, musculoskeletal and urogenital systems as well as cellular metabolism and drug absorption. Required of Gerontology majors. Four lectures. (F2) (Alternate years)

BIOL 126 - How Your Body Works 4 hours. This course is an overview of human biology in terms of anatomy and physiology. By developing a base in biology and chemistry, students will make connections regarding problems associated with organ systems and current scientific findings associated with human biology. Lab exercises are designed to explore the functional, structural, and developmental relationships. Three lectures and one 2 hour laboratory. This course addresses the NY State Learning Standards for Biology, Chemistry, and Physics. (F1)

BIOL 130 - Introduction to Human Genetics 4 hours. A look at human genetics from the human genome project and biotechnology to inheritance of traits. Emphasis will be placed on understanding current and past discoveries in genetics, how those discoveries may impact our lives, and what they mean for the non-scientist. Class will meet for 3 lectures and one two-hour lab per week. (F1)

BIOL 140 - Global Ecology 4 hours. Ecology of natural environments especially in developing areas of the world, with a focus on how conditions affect humans' use of those environments. (F2) (GP)

BIOL 201 - Biology I 4 hours. An introduction to the fundamentals of biological organization and processes with an emphasis on diversity of organisms, the variety of ways they have adapted to meet the requirements for living, and how they interact with their environment and other organisms. This is the first semester introductory biology course for biology majors. Concurrent enrollment in CHEM 105 is recommended.

BIOL 202 - Biology II 4 hours. An introduction to the fundamentals of biological organization and processes with an emphasis on diversity of organisms, the variety of ways they have adapted to meet the requirements for living, and how they interact with their environment and other organisms. This is the first semester introductory biology course for biology majors. Concurrent enrollment in CHEM 106 is recommended.

BIOL 225 - Research Methods in Biology 2 hours. Introduction to basic skills of biological research, including lab safety, experimental designs, and scientific writing and presentation. Prerequisites: BIOL 201/202.

BIOL 226 - Biostatistics 4 hours. Application of statistics to experimental design, data analysis, and decision making in the biological sciences. Prerequisites: BIOL 201/202. (III)

BIOL 230 - Nutrition in Heath and Disease 2 hours. A consideration of the fundamentals of nutrition to help understand the relationship of nutrition to growth, health and disease. Emphasis is placed on students acquiring the ability to critically read and evaluate consumer nutritional information and to develop effective health promoting skills. Required of junior Athletic Training majors. Four lectures. (F2)

BIOL 300 - Topics in Biology 1-4 hours. This course provides opportunities for examining areas not covered in the regular offerings. Topics vary each semester.

BIOL 302 - General Microbiology 4 hours. This course surveys the microbial world, with an emphasis on bacteria and viruses. The student will gain an understanding of how the study of microorganisms has paved the way for important advances in human health, agriculture, and food science.

Major topic areas include structure/function, metabolism, genetics, biotechnology, and host-parasite relationships. The laboratory offers experience in aseptic handling of bacterial cultures as well as applications of classical and modern techniques for microbial identification and characterization. Three lectures and one three-hour laboratory. Prerequisites: BIOL 201/202, CHEM 105/106; 310 or 315 pre- or co-requisite.

BIOL 304 - Microbial Ecology 4 hours. Microbial ecology examines microorganisms in their natural environment. Although microorganisms are too small for us to view without aid, they are significant enough to define every ecosystem on earth, from subterranean depths to the upper atmospheres. In this course we will examine how microorganisms interact with biotic and abiotic factors in their environment. We will then use this knowledge as a basis to study microbial diversity, nutrient cycling, bioremediation, environmental management, energy recovery and production and human applications of microorganisms in industry and agriculture. In laboratory we will learn classic and modern techniques for handling and studying pure and mixed microbial communities, including current metabolic and genomic fingerprinting technologies. Finally students will use their new understanding of the microbial world to design and conduct an individual project. Three lectures and one three-hour laboratory. Prerequisite: BIOL 201/202 or ENVS 101; CHEM 105/106.

BIOL 305 - Belize and the Caribbean 2 hours. This course provides an overview of the insular and mainland region known as the Caribbean, with emphasis on the nation of Belize. Topics surveyed include flora and fauna, prehistory, colonial and modern history, social structure, and recent developments. (GP) (Cross-listed as ANTH 305, GLBS 305)

BIOL 307 - Anatomy and Physiology: Nerves, Muscles, Bones 4 hours. This course examines the bases of the human body in health and disease. Using dissections of mammalian specimens, students investigate structure and function from cell to organ system of the integument, skeletal-muscular, and nervous-sensory systems. Three lectures and one three-hour laboratory per week. This course is part of the Anatomy and Physiology series. Prerequisite: BIOL 201 or 202.

BIOL 308 - Anatomy and Physiology: Viscera 4 hours. This course examines the bases of the human body in health and disease with a focus on 'internal' organ systems, including the circulatory, lymphatic, respiratory, urinary, and reproductive systems. Students engage in dissections of mammalian specimens. Three lectures and one three-hour laboratory per week. This course is part of the Anatomy and Physiology series. Prerequisite: BIOL 201 or 202.

BIOL 311 - Invertebrate Zoology 4 hours. An extensive study of selected species to illustrate invertebrate structure, biological relationships and adaptations to their habitats. Three lectures and one two-hour laboratory. Prerequisite: BIOL 201/202. (Alternate years)

BIOL 322 - Botany 4 hours. A phylogenetic exploration of plants, with emphasis on adaptation of structure and function to different environments. Topics include anatomy, physiology, evolution, ecology, and economic botany. Three lectures and one two-hour laboratory period. Prerequisites: BIOL 201/202.

BIOL 332 - Histology 4 hours. Study of the basic organization of the tissues of the vertebrate body. Emphasis on the derivation of cells and tissues from undifferentiated precursors and development of specialization for functional activity. Principles of tissue preparation for microscopic examination included in lecture and laboratory. Two lectures, one three-hour lab and one hour additional preparation. Prerequisite: BIOL 201/202.

BIOL 340 - Virology 4 hours. An introduction to bacterial, animal, and plant viruses with emphasis on viral structure, replication, host-cell interaction and the use of viruses as gene therapy delivery tools. 4 hours lecture. Prerequisite: BIOL 252 or permission of instructor.

BIOL 345 - Vertebrate Natural History 4 hours. A study of the systematics, adaptations and ecological relationships of representative species of living fish, amphibians, reptiles, birds and mammals. Laboratory includes examination of living and prepared specimens as well as field identification of animals in their natural habitats. Optional all-day field trip to Buffalo Museum, Zoo and Niagara Aquarium. Three lectures, one three-hour lab. Prerequisite: BIOL 201. (Alternate years)

BIOL 346 - Animal Nutrition 4 hours. Basic principles of animal nutrition, emphasizing characteristics and metabolism of nutrients, these nutrients in terms of feedstuffs, anatomy and physiology of gastrointestinal tracts, and nutritional lifecycles of various animals. Four lectures. Prerequisites: BIOL 201/202.

BIOL 348 - Animal Behavior 4 hours. A look at the study of animal behavior to interpret genetic, environmental, and physiological influences on development, control, adaptation and evolution of behavior. 4 lectures and 1 hour reserved for acquiring techniques and implementation of a project. Prerequisites: BIOL 201/202; BIOL 225 and BIOL 376 recommended.

BIOL 352 - Developmental Biology 4 hours. Descriptive and functional study of gamete formation, fertilization and progressive development and differentiation of plants and animals. Laboratory examination of prepared materials with additional exercises using live specimens to demonstrate developmental principles and experimental techniques Two lectures and two two-hour laboratory periods. Prerequisites: BIOL 201/202. (Alternate years)

BIOL 354 - Ecology 4 hours. Interactions of organisms and their environment with emphasis on populations, communities, and ecosystems. Three lectures and one three-hour laboratory. Prerequisite: BIOL 201 or ENVS 101. (Fall, alternate years)

BIOL 356 - Aquatic Ecology 4 hours. Introduction to ecology of lakes, streams, and wetlands. Three lectures and one three-hour laboratory. Prerequisite: BIOL 201 or ENVS 101. (Fall, alternate years)

BIOL 358 - Biogeography and Landscape Ecology 4 hours. Biogeography looks at patterns of living things in space and time. By combining ecological, evolutionary, and geographic points of view, we will see how life has evolved around the globe to exploit physical differences such as soils and climate. Landscape ecology quantifies spatial structure, especially as affected by humans, in regions comprising one or more ecosystems. Relating the two approaches helps us to appreciate how populations have survived geographical constraints in the past and to predict how they might fare in the future. Geographic information systems will be demonstrated as an important contemporary tool in spatial ecology. Prerequisite: BIOL 201 or ENVS 101.

BIOL 362 - Molecular Cell Biology 4 hours. This course is intended to help the student develop an understanding of the cell as a basic biological unit. Emphasis is placed on ultrastructure, organization, and function of cellular organelles, and the regulation of selected cell activities. Four lectures and a one-hour recitation. Prerequisites: BIOL 202 and CHEM 105; CHEM 106 recommended.

BIOL 365 - Genetics 4 hours. Principles of classical, molecular, and population genetics including Mendelian and cytoplasmic inheritance; DNA recombination, linkage, and mapping; structure and replication of genetic material; the control of gene expression; mutation; Hardy-Weinberg theorem; and quantitative genetics. Application of concepts through investigative laboratories. Three lectures and one three-hour laboratory per week. Required for all Biology majors. Prerequisites: BIOL 201, 202, CHEM106.

BIOL 372 - Advanced Cell Biology 4 hours. Designed to build on BIOL 252, this course focuses on integrative and specialized cellular activities. Integrative cell functions include: cell-to-cell signaling, programmed cell death, mechanical and structural properties, motility, and differentiation via specific interactions between cells. Specialized cellular activities include: molecular immunology, neuron structure and function, and the cellular bases of cancer. Three hours lecture plus two hours laboratory. Prerequisite: BIOL 252 (grade of C or better recommended).

BIOL 374 - The Biology of Cancer 2 hours. A detailed examination of the biological basis for cancer and anti-tumor therapies. Specific topics include: viral and chemical oncogenesis; disruption of the cell cycle; angiogenesis; metastasis; chemotherapy; epidemiology of cancer; and host-tumor interactions. 2 hours lecture. Prerequisite: BIOL 252.

BIOL 375 - Comparative Vertebrate Biology 4 hours. A comprehensive review of the structure, taxonomy, evolution, and biological relationships of vertebrates. Two lectures and two two-hour laboratories. Prerequisites: BIOL 201/202. (Alternate years)

BIOL 376 - Animal Physiology 4 hours. Principles and problems concerned with the physiochemical responses and functioning of animal tissues and organs. Three lectures and one three-hour laboratory period. Prerequisites: BIOL 201 and 202, BIOL 375 and either CHEM 310 or 315.

BIOL 390 - Junior Seminar 1 hour. Development of writing and interviewing skills critical in applying to graduate and professional schools, internships, and for employment. Students write and critique cover letters, resumes, essays and sample applications, take sample entrance examinations, interview a professional in a career of interest, and receive phone and face-to-face mock interviews with feedback on appropriate dress, mannerisms, and ability to respond to questions. Emphasis on professionalism.

BIOL 402 - Immunology 4 hours. During this course you will learn what makes up the immune system, and how it works in keeping us healthy. We'll also take a look at some of the more complex issues surrounding the immune system such as vaccination, autoimmune disease and transplantation. Upon completion of the course you will be able to name and describe the cells and organs of the immune system, and understand the function of each. You will also be able to describe the normal processes of immunity, and regulatory controls, explain the results of immune component deficiencies and understand how normal immune function can cause disease. Prerequisite: BIOL 252; BIOL 302 recommended.

BIOL 404 - Mechanisms of Microbial Pathogenesis 4 hours. This course examines the host-parasite interaction and the mechanisms by which microbes evade the host response and cause disease. The emphasis is on an understanding at the molecular level of microbial pathogenesis, including colonization, invasion, antigen variation, and toxin production and mode of action. Case-study and problem based exercises will support material presented in lecture and allow students an opportunity for inquiry based learning. Four hours per week, with one hour reserved for case-study discussion. Prerequisite: BIOL 252.

BIOL 410 - Endocrinology 4 hours. A study of endocrinology from molecular to organismal levels. Emphasis is placed on categories of hormones and receptors, regulation of physiological responses, and mechanisms of endocrine dysfunction. Four lectures. Prerequisites: BIOL 201/202; BIOL 376 or BIOL 252 recommended.

BIOL 415 - Genetics and Evolution of Populations 4 hours. This course investigates modern evolutionary theory at the macro- and micro-evolutionary scale. Topics include historical perspectives, basic principles of evolution, mechanisms of evolution, genetics of populations, quantitative genetics and phylogenetics. Four hours of lecture per week. Prerequisites BIOL 201/202; BIOL 365 recommended.

BIOL 420 - Biochemistry: Proteins and Metabolism 4 hours. Properties, biosynthetic pathways, and metabolism of carbohydrates, lipids, and nitrogenous compounds with related units on physical biochemistry, protein structure, bioenergetics and enzyme kinetics. Laboratories reinforce theoretical concepts and provide hands-on experience with modern biochemistry techniques and instrumentation. Three lectures and one three-hour laboratory. Prerequisite: Either [BIOL 252 and CHEM 315/316] or [BIOL 202, (CHEM 343 or CEMS 235), and (CHEM 310 or CHEM 315)]. (Cross-listed as CHEM 420)

BIOL 422 - Biochemistry: Nucleic Acids 4 hours. This course surveys the biochemistry of the gene, with an emphasis on protein/nucleic acid interactions. Topics include nucleic acid structure, regulation of DNA replication and transcription, post-transcriptional modification of RNA, recombinant DNA techniques, and genetic engineering methods. Three hours lecture and one three-hour laboratory. (Students who wish to take only one semester of Biochemistry should take BIOL/CHEM 420.) Prerequisite: C or better in BIOL 252; BIOL 372 recommended. (Cross-listed as CHEM 422)

BIOL 425 - Physiological Plant Ecology 4 hours. An exploration of plant function from the tissue to the whole organism level, with emphasis on interactions with the environment. Topics include plant-water relations, nutrition, energy and carbon cycling, development, and stress physiology. Three lectures and one three-hour laboratory. Prerequisites: BIOL 201/202, CHEM 106; CHEM 310 or CHEM 315 recommended. (Alternate years)

BIOL 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required. Independent Study is required of all students who are candidates for graduation with honors in Biology.

BIOL 485 - Internship in Biology 1-6 hours. Off-campus research in consultation with faculty and project advisors. Open to junior, senior and graduate biology students.

BIOL 490 - Biology Research Seminar 1 hour. An advanced topics seminar held once a week, conducted by enrolled students, local speakers, and outside speakers. Weekly topics and discussion will represent current research in a wide range of biological sciences. Prerequisite: Biology or BMES major; senior standing, BIOL 226 pre- or co-requisite.

Chemistry

CHEM 105 - General Chemistry I 4 hours. A systematic study of the fundamental principles, theories and calculations involved in chemistry. Basic concepts of bonding, chemistry of selected elements and their compounds, states of matter, stoichiometry, solution reactions, equilibrium, kinetics, electrochemistry, thermodynamics, nuclear chemistry, and an introduction to organic chemistry. Laboratory work includes experiments in stoichiometry, qualitative and quantitative analysis. Required for pre-health professionals and engineering, biology, and chemistry majors. Two lectures, one demonstration, one laboratory and one quiz per week. CHEM 105 is a prerequisite for CHEM 106. (F1)

CHEM 106 - General Chemistry II 4 hours. CHEM 106 is a continuation of CHEM 105. Two lectures, one demonstration, one laboratory and one quiz per week. Prerequisite: CHEM 105 or CHEM 115. (F1)

CHEM 300 - Special Topics in Chemistry 1-4 hours. This course explores special topics in chemistry appropriate for sophomore, junior, and senior level students majoring in chemistry or related fields. Contact the course instructor for additional information about any CHEM 300 course offering. Prerequisites: CHEM 105 and CHEM 106, or permission of instructor.

CHEM 310 - Basic Organic Chemistry 3 hours. A descriptive study of the structure and reactions of common aliphatic and aromatic compounds of carbon. For students interested in ceramics, materials science, environmental science, or ecology, but not suitable for chemistry majors or those interested in biochemistry, molecular biology, or the health professions. Prerequisite: CHEM 106 or CHEM 116 or permission of instructor.

CHEM 315 - Organic Chemistry I 4 hours. An introduction to organic compounds. Topics include structure identification using modern spectroscopic methods, bonding and reactions such as nucleophilic substitutions, eliminations and additions to alkenes. Laboratory topics include extraction/washing, recrystallization, TLC, melting points and distillation. Prerequisite: CHEM 105 and 106.

CHEM 316 - Organic Chemistry II 4 hours. An in-depth exploration of the chemistry of carbon-based compounds. Topics include enolates, reductions, oxidations, additions to the carbonyl, the Diels-Alder reaction, radicals Aromatic reactions, aromaticity, carbohydrates and amino acid chemistry. Laboratory topics include instrumentation and varying reactions. Prerequisite: CHEM 315.

CHEM 321 - Introduction to Analytical Chemistry 4 hours. A study of classical analytical techniques involving equilibria of aqueous systems as well as simple modern analytical techniques involving the methods and instrumentation of spectrophotometry and separation science will be presented. Laboratory exercises will include inorganic synthesis, "traditional wet methods of analysis," and instrumental methods of analysis. Two lectures and two three-hour laboratories per week. Prerequisite: CHEM 106 or CHEM 116.

CHEM 343 - Physical Chemistry I 4 hours. The first semester of our physical chemistry sequence covers thermodynamics from a combined classical/statistical perspective and chemical kinetics. Pre-requisite: CHEM 106, MATH 152, and PHYS 112 or 126.

CHEM 345 - Physical Chemistry Laboratory 1 hour. This course explores concepts in thermodynamics, kinetics, and quantum mechanics through seven laboratory experiments performed as teams in a simulated corporate research environment. Students are strongly encouraged to co-enroll in CHEM 346 or the equivalent. Prerequisites: CHEM 343 or CEMS 235.

CHEM 346 - Physical Chemistry II 3 hours. The second semester of our physical chemistry sequence covers quantum mechanics and spectroscopy. Prerequisite: CHEM 343 or CEMS 235.

CHEM 370 - Chemistry Projects 1 or 2 hours. Laboratory work or literature review involving a chemical topic of interest to the student and not covered in any of the regular course work. A final written report is required. CHEM 370 cannot be substituted for any of the required courses in the chemistry major and cannot be used to fulfill the additional credits needed for an ACS certified degree. A chemistry minor may count up to three credits of CHEM 370 toward the minor. Laboratory work that can be considered original research in chemistry should be performed as an Independent Study or an ARGUS project (CHEM 450). Prerequisites: Permission of instructor, a study plan approved by the Division Chair, and CHEM 106.

CHEM 372 - Inorganic Chemistry 3 hours. Principles of inorganic chemistry with emphasis on periodicity, symmetry and group theory, molecular orbital theory, bonding, acid/base chemistry, coordination chemistry, organometallic compounds, and catalysis. Prerequisite: CHEM 343 or CES 235.

CHEM 374 - Inorganic Chemistry Laboratory 1 hour. Eight to ten experiments designed to demonstrate the synthetic techniques used in modern inorganic chemistry. Inert atmosphere techniques will be included. Co-requisite: CHEM 372.

CHEM 390 - Junior Seminar 0 or 1 hour. A special topics course with a varied format of outside speakers, faculty and student presentations, and discussion groups. Junior majors must register for one credit during one semester and for 0 credit the other semester. An "In Progress" (IP) grade will be converted to a normal grade after a formal talk on a topic from current chemical literature is presented to the class during the final semester. Attendance is mandatory.

CHEM 400 - Advanced Chemistry Topics 1-4 hours. Special topics not covered by regular course work. All special topics courses must have the written approval of the Division Chair and should in general meet the criteria of the American Chemical Society's requirements for an advanced course. Prerequisite: CHEM 346, although this can be waived at the discretion of the Division Chair.

CHEM 420 - Biochemistry: Proteins and Metabolism 4 hours. (see BIOL 420)

CHEM 422 - Biochemistry: Nucleic Acids 4 hours. (see BIOL 422)

CHEM 423 - Instrumental Analysis 3 hours. The theory and practice of modern instrumentation techniques and methods used in chemistry are presented. An in-depth look at spectroscopic, separation, and electrochemical methods and their associated instrumentation follow an introduction to instrumentation; interpretation

of results is also covered. Required for chemistry majors. Prerequisites: CHEM 321 and CHEM 346 or equivalent.

CHEM 450 - Independent Study 1-4 hours. Original chemical research under faculty guidance. The work must have the potential to be published. An Approved Plan of Study and a written final report are required. Oral reports may also be required.

CHEM 457 - Advanced Organic Chemistry 2 hours. Organic reaction mechanisms and stereochemistry. Other topics may be included, depending upon the interests of those enrolled. Prerequisite: CHEM 316 (Alternate years)

CHEM 461 - Advanced Chemistry Laboratory I 2 hours. A laboratory course integrating synthesis, purification, analysis, and characterization of chemical species. Synthetic work includes use of controlled atmospheres, high temperatures and non-aqueous systems. Purification of compounds is by distillation and recrystallization, as well as by various chromatographic techniques. Analysis and characterization include both wet chemical and instrumental techniques. Co-requisite: CHEM 423. Prerequisites: CHEM 321 and CHEM 346 or equivalent.

CHEM 485 - Internship in Chemistry 2-6 hours. Off-campus research in consultation with faculty and an off campus project advisor. An approved plan of study and a written final report are required. Oral reports may also be required. The work must represent original research in chemistry and have the potential to be published. Open to juniors and seniors. Prerequisites: Permission of instructor, a study plan approved by the Division Chair and in general, CHEM 343 although this can be waived by the Division Chair.

CHEM 490 - Senior Seminar 0 or 1 hour. The seminar is an advanced special topics course with a varied format of outside speakers, faculty and student presentations, and discussion groups. Senior majors must register for one credit during one semester and for 0 credit the other semester. They will receive an "In Progress" (IP) grade which will be converted to a normal grade after presenting a formal talk on a topic from current chemical literature during their last semester. Attendance is mandatory.

Chinese

CHIN 101 - Chinese I 4 hours. This course is an introduction to the Mandarin Chinese language and cultures of the People's Republic of China. (II)

CHIN 102 - Chinese II 4 hours. The further development of basic language skills introduced in CHIN 101. A continuation of the study of the cultures of the People's Republic of China. Prerequisite: CHIN 101 or permission of the instructor. (II)

CHIN 200 - Special Topics 1-4 hours. Content varies. Prerequisite: CHIN 102 or permission of instructor.

CHIN 201 - Chinese III 4 hours. In this course students continue development of Chinese language skills, with attention to listening, speaking, reading and writing Mandarin. Students become more familiar with Chinese characters and gain a deeper understanding of China, its people and cultures. Prerequisite: CHIN 102 or permission of instructor. (II)

Communication Studies

COMM 101 - Introduction to Communication Studies 4 hours. An introduction to communication studies in a variety of contexts: intrapersonal, interpersonal, small group, and public. The class improves the student's understanding of communication as a process and facilitates day-to-day interactions.

COMM 110 - Mass Media and American Life 4 hours. An examination of the evolution of American mass media and their cultural, economic, and social implications. Students analyze varied media vehicles (including newspapers, books, magazines, sound recordings, films, and television programs) with regard to content, form, and demographic impact.

COMM 200 - Special Topics in Communication 1-4 hours. This course provides opportunities for examining communication studies areas not covered in the regular offerings. Topics vary each semester.

COMM 205 - Introductory Newswriting and Reporting 4 hours. An introductory journalism course emphasizing news gathering and reporting a variety of basic news stories, including hard news, features, and enterprise stories. Basic newswriting skills covered, including developing news judgment, style, structure, sources, and interviewing techniques.

COMM 210 - Interpersonal Communication 4 hours. This course is designed to increase students' awareness of interpersonal communication theories, practices, and impact.

COMM 220 - Understanding Popular Culture and Media 4 hours. We often refer to popular entertainment as escapist without fully considering what we are escaping from, where we are escaping to, or in what ways the experience affects us. This class ponders these topics through an introduction to the core concepts and approaches associated with critical/cultural studies. (C)

COMM 300/400 - Special Topics 1-4 hours. This course provides opportunities for examining communication studies areas not covered in the regular offerings. Topics vary each semester.

COMM 301 - Broadcasters, Advertisers, and Audiences 4 hours. An overview of television and radio broadcasting and advertising in the United States. The course examines how a variety of factors--historical, cultural, political, legal, economic, and technological--affect the content and character of American broadcasting.

COMM 302 - Public Relations Principles 4 hours. Public relations is the values-driven management of relationships with groups of people that can influence an organization's success. This course examines how organizations can ethically and systematically build productive, mutually beneficial relationships with such groups. To accomplish this, we discuss: (1) the historical antecedents and contemporary practice of public relations in America; (2) the day-to-day tasks and communication responsibilities of public relations practitioners; and (3) the various challenges PR practitioners encounter in their careers. No prerequisite; COMM 205 recommended.

COMM 306 - Gender and Communication 4 hours. This course offers a broad introduction to gender communication. Topics covered include the impact of sex, race, class, ethnicity, and sexuality upon communication style and social behavior. (Cross-listed as WMST 306)

COMM 309 - Persuasion: Reception and Responsibility 4 hours. This course provides majors in communication studies and related areas with a foundation for rhetorical thinking. Critical issues in persuasion are addressed, along with a historical survey of rhetorical philosophy and theory. Students successfully completing the course will know expert opinions on issues concerning face-to-face persuasive communication.

COMM 311 - Advanced Public Speaking 4 hours. This course provides an opportunity for students to build on the public speaking skills they first learn in COMM 101 - Introduction to Communication Studies. Concepts covered include the history of rhetorical theory, ethics, and methods of analyzing public address. Students also write and present a variety of speeches.

COMM 401 - Technology and Communication 4 hours. An exploration of questions raised by the introduction of new communication technologies with particular emphasis on the social, economic, and aesthetic impact of these emerging technologies, and their roles in education and national development. Prerequisite: junior/senior standing, or permission of instructor.

COMM 404 - Media Criticism 4 hours. An exploration of the communicative dimensions of media artifacts: magazines, newspapers, films, television programs, and popular music recordings. Analyses are conducted from rhetorical, semiotic, genre, auteur, feminist, psychoanalytic, and Marxist perspectives. Prerequisite: junior/senior standing, or permission of instructor.

COMM 405 - Television Criticism 4 hours. TV Criticism examines the medium by analyzing its industrial purposes, narrative structures, and the application of mise-en-scene, videography, editing, and sound. Students will familiarize themselves with several critical approaches such as semiotics, genre study, ideological criticism, gender and race studies. Prerequisite: COMM 110.

COMM 409 - Organizational Communication 4 hours. This course introduces students to major concepts regarding communication in organizations, including the professional environment.

COMM 410 - Communication Ethics 4 hours. An exploration of ethical perspectives that pertain to communication in a variety of contexts, including interpersonal, small group, organizational, public and mass. Students learn to become more responsible senders and receivers of communication. Prerequisites: COMM 101 and COMM 110.

COMM 411 - Media Law 4 hours. This course examines the legal concepts, processes, and foundations that govern American media and other forms of public expression. The First Amendment will form the basis for most topic areas covered in this course. Prerequisite: COMM 110 or permission of instructor.

COMM 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

COMM 465 - Gender, Race, Class and Media 4 hours. Investigates how women and minorities (including sexual minorities) are covered/portrayed by the news and entertainment media and how underlying economic, political and sociological factors affect such coverage.

It explores how media portrayals influence the public's views regarding women and minorities and how women and minorities view themselves. And it examines critics' charges that the media portray women and minorities in a negative light and strategies used to counteract possible resulting harm. Prerequisite: COMM 110 or permission of instructor. (Cross-listed as WMST 465)

COMM 470 - Communication Practicum in Journalism 1-4 hours. A lab course giving students practical experience in print journalism, broadcasting, or the Internet under the supervision of a faculty member. Credit value assigned according to the extent of involvement. Prerequisite: Permission of instructor.

COMM 475 - Specialized Reporting 4 hours. A workshop course in which students select and pursue an area of interest. Students, working in a simulated newsroom environment, will cover beats ranging from the courts to the Arts. Emphasis on developing quality beat coverage. Prerequisite: COMM 205 or permission of instructor.

COMM 485 - Internship in Communication 1-4 hours. An off-campus independent study project. Students gain experience in the field of communications by serving as interns in either the print or broadcast areas of the media. When completed, a journal and final report is submitted to the appropriate faculty sponsor. May be taken during the summer. Prerequisite: junior standing.

Criminal Justice Studies

CRIM 322 - Juvenile Justice 2 hours. This course analyzes the philosophies that have influenced juvenile justice policy implementation. The course uses a text and supplemental readings to illustrate the processing system that funnels juveniles from the time of their arrest to their release.

CRIM 332 - Focusing on Police 2 hours. This course gives students an in-depth analysis of police operations. Discussions are centered on police operations and the social process involved in police-citizen contacts.

CRIM 340 - Concepts of Penology 4 hours. A survey of correctional concepts and philosophy with emphasis on the correctional institution as a community and the sociology of confinement. Additional focus on penal reform, correctional administration and innovation. Prerequisite: SOCI 110.

CRIM 351 - Seminar in Criminal Behavior, Etiology, Control, and Rehabilitation 4 hours. Specific problems and issues concerning criminal behavior are examined in depth. The area of investigation varies with the disciplinary orientation of the instructor. Includes analysis of the causes of particular kinds of behavior, examination of methods of control, and consideration of current approaches to rehabilitation. Prerequisite: junior or senior standing.

CRIM 400 - Special Topics 1-4 hours. An open course varying in contents from years to year, which allows concentration on such special topics as terrorism, white-collar crime, drugs and crime.

CRIM 450 - Independent Study 1-4 hours. Individual research by a Criminal Justice Studies major with senior standing into an area of interest. Research topics are chosen to complement material covered in other courses and to provide the student with additional information relevant to career or graduate interests. Approved Plan of Study required.

CRIM 470 - Field Work in Criminal Justice Studies 4 hours. Students work with criminal justice related agencies, normally in the Alfred area, and are expected to apply their theoretical knowledge to the practical experience gained from field work. Prerequisite: Senior Criminal Justice Studies major and permission of instructor.

Dance

DANC 120 - Fundamentals of Dance 2 hours. Introduces new and continuing dance students to the art of dance with an emphasis on alignment, strength, and flexibility of the whole body. Dancers are challenged to develop their physical intelligence and artistic expression in center and across the floor combinations using a wide range of dynamics and rhythms. (C) (PE Requirement)

DANC 200 - Special Topics in Dance 1-4 hours. Courses offered according to students' interests. Topics vary from year to year. (Sufficient demand)

DANC 211 - Dance History 4 hours. A study of the historical development of dance from mid-eighteenth century to the twenty-first century with an investigation of the dance works, artists, and the historical context in which the works were created. Course will include discussion, viewings of live performance and videos, lectures, and experiential activities.

DANC 221 - Ballet I 2 hours. An elementary course in ballet technique including a ballet barre, with the traditional adagio tournament and allegro center floor work. Emphasis on placement and correct turn-out. (C) (PE Requirement)

DANC 222 - Modern Dance I 2 hours. An introductory course in various modern dance techniques including some improvisational work. Prerequisite: DANC 120 or permission of instructor. (C) (PE Requirement)

DANC 223 - Jazz Dance I 2 hours. An introductory course in jazz dance technique incorporating performing aspects of the jazz medium. (C) (PE Requirement)

DANC 224 - Contact Improvisation 2 hours. Students learn to use the physical properties of weight, momentum, countertension and speed to provoke spontaneous, fully-embodied dancing. This studio class introduces basic principles and patterns, such as exchanging weight with a partner, that lead to increasingly complex and daring movement. Working individually, with partners, and in groups, students learn to make alert and intelligent movement decisions as they improvise. Prerequisite: DANC 120 or permission of instructor. (C) (PE Requirement)

DANC 230 - Improvisation/Composition I 3 hours. A laboratory for developing skills as a choreographer and improviser. Emphasis on generating movement vocabulary through improvisation and understanding of dance elements (time, space, energy) for composition. Dance studies are created and performed throughout the semester. Prerequisite: DANC 120.

DANC 270 - Alfred University Dance Theatre 2 hours. The AU Dance Theatre presents students with the opportunity to engage in learning and performing a variety of dance works choreographed by faculty, guest artists and fellow students. AU Dance Theatre presents one work-in-progress "showing" and one concert each year. Participation is open to all students. Prerequisites: DANC 230 and DANC 330, or permission of instructor.

DANC 321 - Ballet II 2 hours. A continuation of the beginning course for the student who has experience in this traditional form and is capable of more complex combinations. May be repeated 4 times for credit to a maximum of 10 credit hours. Prerequisite: DANC 221 or permission of instructor. (PE Requirement)

DANC 322 - Modern Dance II 2 hours. An extension of the beginning course, continued instruction is given in dance forms, movement, awareness, technique and patterns. May be repeated 4 times for credit to a maximum of 10 credit hours. Prerequisite: DANC 222 or equivalent experience to be judged by the instructor. (PE Requirement)

DANC 323 - Jazz Dance II 2 hours. A continuation of the beginning course for students already able to move within the jazz idiom. It includes more advanced work in jazz technique as well as combinations. May be repeated 4 times for credit to a maximum of 10 credit hours. Prerequisite: DANC 223. (PE Requirement)

DANC 330 - Improvisation/Composition II 3 hours. A laboratory for developing skills as a choreographer. Dance compositions are created and performed at the end of the semester. Emphasis on continuing development of the individual "voice" of the choreographer and the ability of the choreographer to "see" dance. Prerequisites: DANC 230 or 330 and one of the following: DANC 120, 221, 222, or 223; or permission of instructor.

DANC 340 - New and Existing Repertory 3 hours. In this course students will learn existing dance repertory and be involved in creating new dance works. Through the rehearsal process, informal performances and research students will explore a variety of rehearsal techniques, explore the varying roles of the dancer in the creative process, develop performing skills, and deepen their understanding of the choreography and the choreographers who created the work. Students will be required to perform these works for the AU community throughout the semester. Prerequisite: Two dance courses or permission of instructor.

DANC 370 - Choreographic Practicum 1-3 hours. This course provides the advanced student with the opportunity to choreograph new dance works under faculty supervision. Prerequisites: DANC 230 and permission of instructor. Repeatable up to six credits.

DANC 385 - Dance Internship 4 hours. An off-campus, independent study project in which the student gains insight from experiencing actual tasks and responsibilities undertaken and performed by persons in the dance field. At completion, a journal and final report is submitted to the faculty sponsor. Prerequisites: junior standing and permission of instructor.

DANC 450 - Independent Study 1-4 hours. Specialized pursuit of a subject within an area of dance not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

Economics

(Offered by the College of Business. See pg. 283 for course descriptions.)

Education

EDUC 230 - Psychological Foundations of Education 3 hours. Mental, social and emotional development with primary reference to human theories and principles of learning. Special emphasis is given to exceptional students. Includes drug abuse education. School observation and participation are required.

EDUC 231 - Social Foundations of Education 3 hours. An introductory course discussing the function of education in society, and, in particular, the organization of the American school system, the influences affecting our schools, and present practice and trends. School observation and participation are required.

EDUC 300/400 - Special Topics 1-4 hours.

EDUC 345 - Education Fieldwork 3 hours. This course is designed for those students seeking New York State certification in the Middle Childhood, Adolescence and special subject areas. It includes a minimum of 100 hours of documented observation in a pre-assigned placement, along with projects, activities and the development of an initial teaching narrative. Students should design their schedules to include a significant block of time, compatible with the school day, in order to complete the required observation hours. Prerequisites: EDUC 230 and 231 and declaration of minor in education, or permission of instructor.

EDUC 374 - Integrated Methods: Social Studies, Science, Mathematics, and Computer Application 6 hours. The integrated methods course combines the teaching of Social Studies, Science, Mathematics and Computer Application into one six credit course and is taught in conjunction with classroom practicum experiences in Early Childhood/Childhood Education. Through these integrated experiences, practicum students will develop the initial ability and skill to: plan and implement appropriate learning experiences; become familiar with the purpose and contents of New York State Learning Standards in content areas and demonstrate the ability to relate these standards with the ongoing process of instructional planning; distinguish among and apply a variety of teaching approaches to accommodate differing developmental needs and learning styles of students and engage students in active learning; become familiar with appropriate strategies to assess the diverse needs of students and develop professional teacher communication and interpersonal skills. Prerequisite: Admission into the Early Childhood/Childhood Education Program.

EDUC 375 - Early Childhood/Childhood Practicum 3 hours. The practicum provides opportunities for students to observe actual classroom settings, gaining "hands on" experience while taking concurrent course work. This course includes three full days a week of field experience in two different grade level placements. Field placements in local school systems provide an opportunity for students to blend theory with practice and experiential application. Transportation to area schools is required.

EDUC 405 - Literacy in the Content Area 3 hours. The course shows teachers how to apply reading methodology to subject area learning. It takes a balanced approach, providing a realistic and practical treatment of reading and methodology issues, theory and research. Prerequisites: EDUC 230 and 231 and declaration of minor in education, or permission of instructor.

EDUC 413 - Using Literature in Intermediate and Adolescent Classrooms 3 hours. This course takes a practical approach to the study and selection of literature for use in teaching intermediate and adolescent students. The riches of classical and contemporary writings for classroom use are overviewed. Various educational methods which integrate children's literature into the intermediate and adolescent curriculum are reviewed. Prerequisites: EDUC 230 and 231 and declaration of minor in education, or permission of instructor.

EDUC 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/ classroom setting. Approved Plan of Study required.

EDUC 460 - Seminar in Teaching and Professional Development 3 hours. Taken concurrently with EDUC 462 and EDUC 463, this course addresses general issues of professional development of educators. Topics include, but are not limited to classroom management, teaching learning process, and issues of professionalism.

EDUC 461 - Student Teaching for Early Childhood/Childhood Certification
EDUC 462 - Student Teaching for Middle/Adolescent Certification
EDUC 463 - Student Teaching-Art Education
12 hours. Cooperating schools make it possible for student teachers to practice teach under typical public school conditions. The Division of Education, the major department, and cooperating teacher supervises observation, teaching, and discussion. Open only to students who are approved by the Division of Education. Transportation to area schools is required. Fingerprint clearance is recommended.

EDUC 471 - Methods of Teaching Literacy 6 hours. This course involves a study of the planning and implementation of literacy instruction birth-grade 6. The big ideas of early literacy; phonemic awareness, alphabetic principle, fluency, vocabulary and comprehension instruction for all students, including those with special needs, will be covered. Prerequisite: Admission into the Early Childhood/Childhood Education Program.

EDUC 472 - Competency Skills in Teaching Literacy 3 hours. This course gives students an opportunity to demonstrate achieved competency skills for teaching literacy at the Early Childhood/Childhood level. Attention will be given to the current New York State Learning Standards and how to incorporate these standards into the curriculum. Prerequisite: EDUC 471 and admission into Student Teaching in Early Childhood/Childhood Education.

EDUC 473 - Assessment in the Early Childhood/Childhood Classroom 3 hours. This course examines assessment procedures, strategies, and techniques used and constructed for early childhood/childhood classroom teaching and learning purposes. Traditional and nontraditional means of assessment will be explored and an emphasis is placed on the alignment of assessment, instruction and content.

EDUC 474 - Orientation to the Early Childhood/Childhood Classroom 3 hours. This course helps students focus on problems, opportunities and challenges of the early childhood/childhood curriculum and classroom. It covers such issues as teacher awareness, teacher expectations, modeling, classroom management and grouping, as well as the socialization process within the early childhood/childhood classroom.

EDUC 488 - Current Teaching Methods: Middle Childhood Subjects 3 hours. Discussion of goals, methods, and materials used to successfully teach middle childhood subjects. Classroom observation and teaching required. Prerequisites: EDUC 230 and EDUC 231, declaration of minor in education.

EDUC 489 - Current Teaching Methods: Adolescent Subjects 3 hours. Discussion of goals, methods, and materials used to successfully teach middle/adolescence and special subjects. Prerequisites: EDUC 230 and EDUC 231, declaration of minor in education.

EDUC 491 - Methods and Curriculum in Art Education 3 hours. This course provides a foundation and introduction to a variety of teaching methods as well as techniques, methods and materials for art education. This course helps with the transition to teacher as students prepare for student teaching placement. Prerequisites: EDUC 230 and 231; Pre- or Co-requisite: EDUC 345, declaration of minor in education.

Special Education
SPED 456 - Human Development: Exceptionality 3 hours. This course covers the range of physical, cognitive, communication, and social/emotional exceptionalities in human development from childhood to early adulthood. One focus is on the commonalities, not just the differences, between children and youth with disabilities and their nondisabled peers. A second focus is on understanding the different contexts of disability. Prerequisites: EDUC 230 and 231 and declaration of minor in education, or permission of instructor.

English

Writing
ENGL 101 - Writing I 4 hours. Study and application of the basic principles of written communication: correctness, clarity, concreteness, effective organization, and accepted forms of documentation. (I)

ENGL 102 - Writing II 4 hours. This course offers intensive experience in essay writing. Through the close reading of literature and the practical experience of writing, students explore rhetorical strategies, learn accepted forms of documentation, develop a sense of voice, and deepen their responses to the written word. (ENGL 102 is prerequisite to 300 and 400-level studies in English.)

ENGL 200 - Special Topics in Writing 2 or 4 hours. A series of introductory writing courses, each being a study of a subject not covered in other 200-level courses. Topics may include feature writing, magazine writing, or writing in other specialized areas.

ENGL 201 - The Language of Literary Art 4 hours. This course introduces students to the elements of literary art. Through a sequence of readings and problems, students gain an understanding of diction, figuration, genre, point of view, and context as shaping components of literary form.

ENGL 202 - Fiction Workshop 4 hours. For beginning prose writers, a course on the elements, styles, and techniques of contemporary fiction and narrative. Students experiment with subject and voice with an emphasis on creating characters. Portfolio exam.

ENGL 204 - The Art of the Personal Essay 2 hours. An examination of the best contemporary essayists. Students develop their own essays after reading and discussing these works. (Cross-listed as WMST 204)

ENGL 205 - The Play's the Thing! - Playwriting 4 hours. This team-taught course combines beginning acting exercises with improvisations in writing. Texts include full-length plays and one-acts. Students are expected to write and revise one-act plays over the course of the semester. (Cross-listed as THEA 205) (C)

ENGL 206 - Poetry Workshop 4 hours. A beginning writing course in poetry with an emphasis on originality and freshness of language and a basic understanding of poetic form. Required work includes extensive reading of contemporary poets, weekly writing, peer review, and a final portfolio of revised poems.

Film

ENGL 210 - Special Topics in Film 2 or 4 hours. A series of introductory courses, each being a study of film not covered in other 200-level courses. (C)

ENGL 233 - Film Criticism 4 hours. An introductory course examining narrative films for their basic elements in order to perceive the ways they convey values and experiences and solicit aesthetic response. (C)

ENGL 234 - Crime on Film 4 hours. A study of the criminal underside of American life as depicted in the gangster film (Public Enemy, Scarface, Godfather I, II) the private eye film (Maltese Falcon, Chinatown), and the "film noir" (Double Indemnity, Out of the Past, Gilda). (C)

ENGL 235 - Comedy in Film 4 hours. This study of American film comedy (excluding silents) examines such figures as Chaplin, the Marx Brothers, Lubitsch, Sturges, Capra (It Happened One Night), Hawks, (Bringing up Baby), Kubrick (Dr. Strangelove), Allen (Annie Hall) and others. (C)

ENGL 236 - Women in Film 4 hours. This study will examine from Imitation of Life to Thelma and Louise, the portrayal of women in such American films as the material and domestic melodrama, the romantic comedy, the film noir, the "women's film," and the "new women's film." (C)

Introduction to Literature

ENGL 211 - The Short Story 2 or 4 hours. This introductory course may adopt one or more of the following approaches: an historical survey of the genre, examining the emergence and growth of this literary form; an aesthetic treatment; a cultural stance, illustrating how class, gender, and ethnicity influence literary texts; a thematic ordering, revealing how different works treat familiar themes. (A)

ENGL 212 - The Novel 2 or 4 hours. An introductory examination of one of the most complex and powerful of all genres. This course may focus on a number of issues crucial to the novel: history, conventions, theme, and/or culture. British, American, and/or Continental authors. (A).

ENGL 213 - Introduction to Poetry 2 or 4 hours. This course introduces students to the main traditions of English verse and the fundamentals of poetic form. Selections include the major poets of the English language, as well as contemporary British, Irish, and American poets. (A)

ENGL 214 - Introduction to Drama 2 or 4 hours. A study of plays as literature, parallel to other genres, but unique by way of staging and performance. The course examines comedy and tragedy as well as less traditional dramatic forms. Readings are drawn from plays of ancient Greece and Rome, the Middle Ages and the Renaissance, the Neoclassical Period, and the twentieth century. (A)

ENGL 215 - The Short Novel 2 or 4 hours. This course approaches the short novel or "novella" as differing from novel and story not merely in size, but in kind. It is a distinct species of fiction, uniquely crafted and responsive to an aesthetic separate from that of its longer and shorter cousins. Readings are selected from American, British, Irish, and Continental short novels. (A)

ENGL 216 - 20th Century Poetry 4 hours. In this course we will read some of the best known 20th-Century American, British, and Irish poets: Robert Frost, ee cummings, Sylvia Plath, Thomas Hardy, W. B. Yeats, and Seamus Heaney among others. (A)

ENGL 218 - Autobiography 2 or 4 hours. "[O]ne never finds truth; one creates it" (Lillian Smith). What does it mean when an individual writes his/her life? This course combines the study of literary autobiography with traditional critical approaches to the genre. Readings include stories, letters, diaries, poems, memoirs, and criticism. (A)

ENGL 219 - British Literature(s) 4 hours. This course examines British literature from one of several possible perspectives: cultural, aesthetic, historical, thematic, and political. Literary periods or scope of reading may vary according to the perspective. (A)

ENGL 220 - Special Topics in Literature 2 or 4 hours. A series of introductory courses, each being a study of literature not covered in other 200-level courses. (A)

ENGL 221 - Tales of King Arthur 2 or 4 hours. This course examines King Arthur from his historical origins, to both his glorious and not-so-glorious medieval forms, and finally to his modern incarnations. It introduces students to medieval romance, the concept of chivalry, and the transmission of the Arthurian legend from one culture to another. (A)

ENGL 223 - Survey of British Literature 4 hours. This course will provide an overview of British Literature: Beowulf, Chaucer, Renaissance and Metaphysical Poetry. Shakespeare and the Jacobeans, Restoration and 18th Century Poetry and Prose, 19th and 20th Century novels. Romantic, Victorian, and 20th Century Poetry.

ENGL 225 - Shakespeare in Cinema 2 or 4 hours. This course explores some of Shakespeare's most popular plays and their film adaptations. Students focus on the literary analyses of character, theme, and language in the written texts. We also compare the cultural contexts of representative comedies, tragedies, and histories, with their contemporary film settings. (A)

ENGL 240 - American Literature(s) 4 hours. This course examines American literature from one of several possible perspectives: cultural, aesthetic, historical, thematic, political. Literary periods or scope of reading may vary according to the perspective. (A)

ENGL 241 - Survey of American Literature 4 hours. This course will focus on the problematic question of a national literature. By looking at the variety of texts that make up American literature, the course will examine the influence of history and culture on literary theme and voice.

ENGL 243 - Lunatics, Lovers, and Poets: Southern Storytellers 2 or 4 hours. Southerners don't hide their skeletons in closets; they invite them into the living room to entertain at tea. This course focuses on works which examine what Flannery O'Connor defined as the Southern grotesque-individuals "forced to meet the extremes of their own nature." Exploring the world created when tragic merges with comic, other writers might include Faulkner, Williams, Welty, Percy, Crews, Dickey, and Tyler. (A)

ENGL 244 - New American Poetry 2 or 4 hours. In this course we will examine the current work of living American poets. We will give special attention to poets who address moral, social and environmental issues. Selections will vary from year to year. (A)

ENGL 251 - World Literature I 4 hours. This course introduces students to early English and non-English literary traditions and provides an understanding of the connections between and differences among cultures of the ancient, medieval, and renaissance periods. (A)

ENGL 252 - Contemporary World Literature 4 hours. This course is a cross cultural investigation of 20th century literature that could include texts from Latin America, Africa, Asia, Europe and North America. Students will interpret texts within the sociological, political, and historical contexts of the authors. (A) (GP)

ENGL 254 - Women Writers 2 or 4 hours. A course that examines issues of language, gender, and culture portrayed through the lens of the woman writer. Texts may include novels, stories, autobiographies, essays, letters, and poetry. (Cross-listed as WMST 254) (A)

ENGL 256 - Multicultural American Literature 4 hours. This course explores the rich diversity of American literature, focusing either on one cultural tradition or on different ethnic communities in relation to one another. African American, Asian American, Latino/a, Jewish American, Italian American, or Native American literatures may be included. (Cross-listed as WMST 256) (A)

ENGL 275 - Fiction into Film 2 or 4 hours. A comparative study of several fictional works and their film adaptations. The course analyzes individual texts and films, and considers the relationship between words and visual images or between the literary canon and popular culture. (A)

ENGL 277 - Tales of Adventure 4 hours. Tales of adventure constitute the oldest literature that has survived through the centuries. This course examines many genres: epic, political satire, romance, horror, the fairy tale, and science fiction. Readings span more than 2500 years of literary history. (A)

ENGL 278 - The Middle Ages in Literature and Film 4 hours. This course examines the use and abuse of medieval concepts such as the quest, Christian morality, and courtly love, as well as of specific medieval characters and events by authors and filmmakers such as J.R.R. Tolkien, C.S. Lewis, T.H. White, John Cleese, Walt Disney, and Quentin Tarantino. (A)

ENGL 279 - The Vietnam War in American Literature and Film 4 hours. We explore the impact of Vietnam on American literature and film, concentrating on how the lens of imagination has become a tool for seeing the war more clearly and coming to terms with it as cultural experience and ordeal. (A)

ENGL 281 - Literature and Science 2 or 4 hours. "Three quarks for Muster Mark" (James Joyce). This course will explore and challenge the boundaries separating disciplines. Fictional representations of emerging technologies, medical nightmares, and futuristic utopias and distopias are all possibilities for discussion. (A)

ENGL 290 - War and Imagination 4 hours. War, humankind's worst activity, has stimulated the human imagination to admirable accomplishments. We examine war fiction from the Civil War, through the two World Wars, Korea, the Cold War, Vietnam, and Iraq. Selected war films will supplement the texts. (A)

ENGL 292 - Tales of Terror 2 or 4 hours. "Only the perverse fantasy can save us" (Goethe). If you like women in white, gray castles, and dark secrets, this course is for you. An exploration of the conventions and tropes in Gothic literature. (A)

ENGL 293 - Writers Gone Wild: Literature and the Environment 4 hours. We explore representations of the natural world in literary texts, asking questions like "does my dog really love me or am I anthropomorphizing?" "Is gardening an act of love, ownership, creativity, or something else entirely?" "Are we really leading lives of quiet desperation, and how can hoeing beans help?" (A)

Advanced Studies

ENGL 300 - Major Figures in Literature 2 or 4 hours. A series of courses, each being a detailed examination of the work of a single major writer. Currently these include: Homer, Dante, Swift, Hardy, Lawrence, Cather, Hemingway, Faulkner, and Morrison.

ENGL 307 - Chaucer 4 hours. This course introduces students to Chaucer's works. All readings are in Middle English, and students will gain competence in reading and pronouncing Chaucer's English. Readings will include "The Book of the Dutchess," excerpts from "The Legend of Good Women," "Troilus and Criseyde," and excerpts from "The Canterbury Tales."

ENGL 308 - Women Writers in the Middle Ages 4 hours. This course examines the writings of medieval women - abbesses, merchants, wives, mothers, and mystics - to explore the challenges female writers such as Heloise, Margery Kempe, Julian of Norwich, and Christine de Pizan presented to orthodox Christianity, to gender stereotypes, and to medieval political and social structures. (Cross-listed as WMST 308)

ENGL 310 - English Renaissance Literature 4 hours. This course focuses on the poetry and drama of the sixteenth and seventeenth centuries. The Elizabethan, the metaphysical, and the classical traditions of poetry are represented by Spenser, Shakespeare, Donne, Jonson, and Milton; the Elizabethan-Jacobean drama is presented by such dramatists as Marlowe, Jonson, and Webster.

ENGL 311 - Shakespeare's Comedies and Histories 4 hours. This course introduces theories of comedy and explores Shakespeare's development as a comic dramatist as students read the festive and romantic comedies, comparing his early efforts with his mature plays. It also examines Shakespeare's dramatization of English and Roman history, the genre of the history play, and the playwright's adaptation of history to the comic and tragic modes.

ENGL 312 - Shakespeare's Tragedies 4 hours. This course focuses on Shakespeare as a tragic artist. It introduces theories of tragedy, explores the playwright's experimentation with the genre, comparing his early efforts with his mature accomplishments, and examines some tragi-comedies.

ENGL 313 - The Eighteenth Century 4 hours. This course explores the works of such authors as Jane Austen, Oliver Goldsmith, Matthew Lewis, Lady Mary Wortley Montagu, and Jonathan Swift against the background of eighteenth-century values and ideas. Genres include the novel, drama, and poetry.

ENGL 314 - English Romantic Movement 4 hours. This course focuses on the well-known works of Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats as well as on the less well known but important works of writers such as Anna Barbauld, Mary Robinson, and John Clare. Poems will be supplemented by works of fiction associated with British Romanticism such as Mary Shelley's "Frankenstein".

ENGL 315 - Victorian Literature 4 hours. This course focuses on major Victorian poets and novelists such as Alfred Lord Tennyson, Matthew Arnold, Robert Browning, Elizabeth Barrett Browning, Christina Rossetti, Gerard Manley Hopkins, Charles Dickens, the Brontes, Thomas Hardy, and Oscar Wilde.

ENGL 331 - 19th-Century American Literature 4 hours. This course explores the diverse literary experiments of a nation striving toward cultural and aesthetic independence. Readings and critical perspectives vary according to instructors.

ENGL 332 - 20th Century American Visions 4 hours. This course examines modern and postmodern literary experiments as manifested in American culture. Readings and critical treatments vary according to instructors.

ENGL 333 - Voices in British and American Poetry 4 hours. The "experience of each new age requires a new confession, and the world seems always waiting for its poet" (Emerson). Selected readings introduce representative poetic voices throughout each British and American age, from the Middle Ages to the present, from Beowulf to Prufrock.

ENGL 334 - American Drama 4 hours. This course introduces students to selected American drama, allowing students to develop analytical skills for addressing dramatic texts and to relate their understanding of American plays to specific and dynamic cultural and historical backgrounds. Prerequisite: One lower-level literature course.

ENGL 336 - Literature of the American South 2 or 4 hours. This course examines short stories, novels, plays, and poetry which led to a "Southern Renaissance" in the twentieth century. Writers might include Chopin, Faulkner, Hurston, Williams, Welty, O'Connor, Percy, Crews, Dickey, and Tyler.

ENGL 342 - Modern and Contemporary Drama 2 or 4 hours. This course begins with the birth of the modern play in the late 19th century, then traces the evolution of dramatic literature to the present time. Readings selected from such playwrights as Ibsen, Strindberg, Chekhov, Shaw, O'Neill, Williams, Miller, Ionesco, Albee, Baraka, Pinter, Stoppard, Shepard, Shaffer, Norman, and Mamet.

ENGL 343 - Studies in the Novel 2 or 4 hours. This seminar explores a number of issues central to our understanding of the novel. The approach varies according to instructor but may include historical development, comparative study, and/or

thematic grouping. Readings vary but focus on the American, British, and European traditions.

ENGL 359 - Literary Criticism and Theory 2 or 4 hours. This course examines how literature has been approached and understood from the time of Plato to the present day. Readings are selected from those critical and theoretical statements which have most profoundly influenced literary response and even literature itself.

ENGL 360 - Special Topics Seminar 1-4 hours. A series of courses, each being an advanced study of a subject not covered in detail by other 300-level courses.

ENGL 372 - Dramatis Personae 4 hours. An advanced poetry writing course for students interested in exploring character dynamics through the vehicle of the persona. Each student is expected to invent several personae and to write in the voices of those characters. The primary focus of the courseis the writers' workshop. Prerequisite: 4 hours of 200-level creative writing.

ENGL 373 - Auto/Biographical Acts: Studies in Creative Non-Fiction 4 hours. Students consider the moral and aesthetic decisions that writers make in the process of writing lives and rendering images of the world. Focus is on autobiographical and biographical writing. Portfolio exam. Prerequisite: 4 hours of 200-level creative writing.

ENGL 374 - Writing the Short Story 4 hours. An intensive writing workshop with an emphasis on the dynamics of the short story. Students are encouraged to experiment with form while learning the techniques of the well-crafted story. Portfolio exam. Prerequisite: 4 hours of 200-level creative writing.

ENGL 375 - Writing Formal Poetry 4 hours. This advanced creative writing course focuses on the appreciation and craft of formal poetry. Students will learn to write in iambic meters, and will learn definitions and read examples of traditional forms such as blank verse, sonnets, sestinas, villanelles, triolets, and ghazals. The primary focus on the course will be the writers' workshop, in which students compose and critique poems written in traditional forms. Prerequisite: at least one 200-level creative writing course; ENGL 201 or 206 recommended.

ENGL 376 - Writing the Long Poem or Poetic Sequence 4 hours. This creative writing course explores long poems and poetic sequences by reading and analyzing examples, then using those models to create our own poems. Through workshop and revision, students will write either a long poem or sequence of shorter poems. Prerequisite: Any 200-level creative writing course (ENGL 201, 202, 204, 205, or 206).

ENGL 381 - International Women Writers 4 hours. Explores literature written by contemporary women from different cultures. Study focuses on voice, content, and style, with some attention to the conditions in which the work was produced and to its reception. (GP) (Cross-listed as WMST 381)

ENGL 382 - African-American Literature 4 hours. This course traces the directions of African-American literature from the slave narrative through the Harlem Renaissance to contemporary fiction, drama, and poetry. Writers such as Frederick Douglass, Jean Toomer, Zora Neale Hurston, Langston Hughes, Richard Wright, Ralph Ellison, Lorraine Hansberry, James Baldwin, Alice Walker, and Toni Morrison are included.

ENGL 400 - Special Topics 1-4 hours. A series of courses, each being an advanced study of a subject not covered in detail by other 400-level courses.

ENGL 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/ classroom setting. Approved Plan of Study required.

ENGL 485 - Internship in English 1-4 hours. An off-campus independent study project under the direction of a faculty sponsor. Students gain exposure to possible careers related to English studies. Requirements for this project include a journal, job evaluations, and a final report. May be taken during the summer or semester abroad.

ENGL 496 - English Honors Thesis 2 hours. To graduate with Honors in English, students must attain a cumulative GPA of 3.30 in their major, successfully complete this senior project, and pass an oral examination. Eligible seniors should discuss their project plans with the Division Chair before registering for ENGL 496.

English as a Second Language

ESL 400 - Special Topics 1-4 hours.

ESL 401 - Speaking and Listening 2 hours. This course will help non-native English speakers improve their speaking and listening skills. Students will work on pronunciation, oral presentation, and extracting meaning from conversations and other kinds of extended discourse.

ESL 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

Environmental Studies

ENVS 101 - Environmental Studies I - Natural Science 4 hours. An introductory science course for environmental studies majors, which may also be used by other students to fulfill graduation requirements in natural sciences. This course provides an understanding of basic ecological principles and an awareness of the interaction of physical, chemical, and biological forces on Earth. (F2) (GP)

ENVS 102 - Environmental Studies I - Social Science 4 hours. This interdisciplinary social science course examines the environmental implications of various socio-cultural, economic and political patterns in primitive, agricultural and industrial settings. These problems in contemporary America receive special attention. (GP)

ENVS 105 - Atmosphere, Humans, Ecosystems 4 hours. Life forms have been influencing the nature of the atmosphere for millions of years, but in recent centuries, human activities have caused profound changes in the atmosphere that are now affecting ecosystems. These include emissions that have caused acid rain, global climate change, damage to the ozone layer, and mercury pollution. This course will explore the effects humans (and other biota) have had on the atmosphere and the results that these changes have had on ecosystems. (F2) (GP)

ENVS 120 - Hazardous Materials 3 hours. This course will acquaint the student with the complexities and dangers of environmental work involving hazardous wastes. Aspects of hazardous materials chemistry, legal and regulatory aspects of hazardous materials, safe work practices, and basics of toxicology will be covered.

ENVS 200/300/400 - Special Topics 1-4 hours. Further consideration of environmental issues introduced in other courses.

ENVS 201 - Environmentalism 2 hours. This course invites students to rethink assumptions and reframe environmentalism. We will explore the present context -- historical, economic and political -- that shapes and delivers the many assaults to our natural world (and that includes us humans!). How can we see, think and act differently in order to change that context, thus enabling the reward of real victories for activist campaigns on behalf of environmental and public health. (GP)

ENVS 204 - Environmental History 2 hours. This survey course looks at attitudes toward nature in American history, the evolution of mainstream and fringe environmental advocacy groups, and key people and events that have shaped the modern environmental movement.

ENVS 205 - Environmental Data Analysis 4 hours. Basic techniques and tools for manipulation of quantitative data, emphasizing environmental studies, data collection, analysis on spreadsheets and statistical packages, graphical presentation. Prerequisite: ENVS 101 and 102 or permission of instructor. (III)

ENVS 220 - Introduction to Geographic Information Systems 4 hours. This class introduces students to the fundamental concepts of computerized geographic information systems (GISs). It will combine an overview of the general principles of GIS and spatial data management with training on one of the most widely used GIS software packages, ArcView (Environmental Systems Research Institute). Students learn ArcView computer skills to manipulate data and create maps. A large selection of natural and social science data will be used for independent projects.

ENVS 240 - Environmental Research Procedures I 3 hours. In this course, students are taught contemporary methods for studying and solving environmental problems. These include geological, biological, and geographical methods. Students are given the opportunity in the course to learn and practice the procedures while working on relevant problems.

ENVS 241 - Environmental Research Procedures II 3 hours. Continuation of ENVS 240. In this course, students are taught contemporary methods for studying and solving environmental problems. These include geological, biological, and geographical methods. Students are given the opportunity in the course to learn and practice the procedures while working on relevant problems. Prerequisite ENVS 240.

ENVS 245 - Spirituality and the Environment 2-4 hours. This course surveys past and present beliefs of major religions and spiritual movements in respect to the way those beliefs have shaped adherents' attitudes toward the environment. Readings include ancient creation myths, medieval mystical writings on nature and current interpretations and re-interpretations of religious beliefs about nature. The course focuses as well on the contemporary debate about religion and its place in the environment. (GP)

ENVS 312 - Environmental Economics 3 hours. Examines human interactions with the environment from economic perspectives. Topics include externalized costs, other market failures, resource economics, time discounting of environmental legacies, intra/inter-generational resource allocation, and implications of macro-economically inappropriate thermodynamic/ecosystem understandings.

Explores theoretical and practical solutions to issues. Prerequisite: ECON 201 or permission of instructor. (Cross-listed as ECON 312)

ENVS 320 - Advanced GIS Applications 4 hours. Students use GIS technology to input primary data, generate spatial statistics, and design and produce maps for their own research areas such as community development and planning, ecology, or any traditional academic discipline. Prerequisite: ENVS 220 or permission of instructor.

ENVS 351 - Environmental Biogeochemistry 4 hours. Transformation and movement of elements on Earth, with emphasis on effects of humans and potential global change. Projects involve field and instrumental analyses. Prerequisites: ENVS 101 and CHEM 105 or permission of instructor.

ENVS 360 - Junior Seminar 1 hour. Students in this course will attend weekly seminars on pertinent topics related to Environmental Studies. Required of all Environmental Studies majors.

ENVS 415 - Natural Resources Management 2 hours. An introduction to the pressures and principles guiding the management of land, plants and wildlife. We discuss the philosophical and policy contexts within which management decisions are made, the associated governance and stewardship issues, and the technical tools available.

ENVS 440 - Environmental Research Planning 2 hours. How research in environmental fields is developed, proposed, performed, and presented, with an emphasis on research projects to be conducted as required independent studies for Environmental Studies majors.

ENVS 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

ENVS 485 - Internship in Environmental Studies 1-4 hours. An off-campus independent study project. Students gain experience by serving as interns at public agencies or private firms which deal with environmental problems. Instructor permission required.

ENVS 490 - Senior Seminar 2 hours. Students in this course will be guided through some of the common aspects of their senior research projects, such as literature searches, task mapping, and development of analytical protocols. All students will be required to present a weekly report on the progress of their senior research. Students will also attend the weekly Environmental Studies seminar series and learn about research techniques and procedures used by professionals. Required of all ENVS majors.

ENVS 499 - Senior Project in Environmental Studies 2-4 hours. Independent research under an instructor's supervision. Presentation of project is required for graduation.

Equestrian

Activity Courses

Note: All 100-level EQUS and some Dance courses can be applied to the University Physical Education requirement.

EQUS 100 - Special Topics 2 hours. Offerings in riding or other equestrian physical activity which vary year to year. (PE Requirement)

EQUS 101 - English Riding: Level I 2 hours. Open to students with little or no riding experience for basic hunter seat equitation taught at the walk, trot and canter. Topics include horse grooming, hoof care, safety procedures (on and off the horse), care of riding equipment, and a horse's health. (PE Requirement)

EQUS 102 - English Riding: Level II 2 hours. Competent hunter seat flat riders are introduced to jumping, trail and recreational riding. The course emphasizes safety and training riders to recognize their own abilities in the ring, on the trail, or in the barn. Topics include horse care, cost and management of one's own horse. Prerequisite: EQUS 101 or permission of instructor. (PE Requirement)

EQUS 103 - English Riding: Level III 2 hours. Riders entering this course should have a secure hunter seat at the walk, trot and canter and should exhibit good control over single fences (maximum height two feet). This course further conditions riders for more strenuous exercises on the flat and the course requires riders to jump small courses. Prerequisite: EQUS 102 or permission of instructor. (PE Requirement)

EQUS 104 - English Riding: Level IV 2 hours. Riders at this level should be competent to walk, trot, canter, and jump with reasonably good equitation. This course furthers the riders' abilities over higher (maximum three feet) fences and more complex courses. Riders continue practice teaching and, time permitting, pleasure and practice sessions, as well. Prerequisite: EQUS 103 or permission of instructor. (PE Requirement)

EQUS 105 - Introduction to Dressage 2 hours. Open to students with intermediate experience in the English disciplines. Dressage is offered to equip students with a broad base of knowledge in classical horsemanship encompassing theory, philosophy, riding, and care of the horse. Students will be introduced to the basics of training level dressage. Prerequisite: EQUS 102 or permission of instructor. (PE Requirement)

EQUS 107 - Combined Training 2 hours. Concentrating on three areas: Dressage, Cross Country Jumping and Stadium Jumping Students are given an introductory working and riding knowledge in combined training. During the course students attend one clinic in each phase and a three day event. Prerequisite: EQUS 103 or permission of instructor. (PE Requirement)

EQUS 110 - Western Riding: Level I 2 hours. Open to students with little or no riding experience in the western disciplines. Skills taught include: bridling, saddling, and horsemanship for the walk, jog and lope. Topics include grooming, hoof care, lungeing, safety procedures, care of horse and equipment. (PE Requirement)

EQUS 111 - Western Riding: Level II 2 hours. Open to students with beginning experience in the western disciplines. Skills taught include: western pleasure, horsemanship and showmanship patterns. Topics include safety procedures, proper tack, attire, equipment, and care of horse. Prerequisite: EQUS 110 or permission of instructor. (PE Requirement)

EQUS 112 - Western Riding: Level III 2 hours. Open to students with intermediate experience in the western disciplines. Skills taught include: western pleasure, horsemanship, showmanship and introductory trail obstacles found on trail course patterns. Topics include showing the all-around horse at breed shows, safety procedures, care of horse and equipment. Prerequisite: EQUS 111 or permission of instructor. (PE Requirement)

EQUS 113 - Western Riding: Level IV 2 hours. Open to students with intermediate or above experience in the western disciplines. Skills taught include: speed events including barrel racing, pole bending, stake race, and goat tying. Topics include: safety procedures, care of horse and equipment and introductory knowledge of team penning. Prerequisite: EQUS 112 or permission of instructor. (PE Requirement)

EQUS 115 - Dressage II 2 hours. Theoretical and practical experience in effectively riding dressage at USDF Training Level and beginning First Level movements. The practical side of this course prepares the student for introduction to competition. The theoretical side develops the student's comprehension of the history and philosophy of dressage. Prerequisite: EQUS 103 or 105; or permission of instructor. (PE Requirement)

EQUS 118 - Introduction to Reining 2 hours. Designed for the advanced rider who wants to become proficient in riding reining patterns. Lecture topics include: general knowledge and observation of reining patterns, condition of the horse needed to compete in reining, health, safety issues, and the shoeing needs of reining horses. Lab skills include: loping circles, lead changes, spins, run downs, sliding stops, and roll backs. Prerequisite: EQUS 112 or permission of instructor. (PE Requirement)

EQUS 120 - Draft Horse Driving I 2 hours. Open to students with beginning experience on and around draft horses. Skills taught include: Origin and background on draft horse breeds, harnessing, ground driving and handling the lines while driving both single and doubles. (PE Requirement)

EQUS 121 - Draft Horse Driving II 2 hours. Lecture topics emphasize a survey of today's industry, breeds, history, conformation, principles of harnessing and hitching, and management of draft horses. Also included are showing procedures, breeding, foaling and training. Laboratory consists of hands-on experience in the handling, harnessing, hitching, driving, care and management of draft and driving horses. Prerequisite: EQUS 120. (PE Requirement)

EQUS 125 - Competition Show Jumping 2 hours. Designed for the advanced rider who wants to further riding skills by jumping more technical and demanding courses. Riders are given the opportunity to participate in local recognized and unrecognized shows in the jumper divisions, as well as shows at the Equestrian Center. Prerequisite: EQUS 103 or permission of instructor. (PE requirement)

Theory/Classroom Courses

(These EQUS Courses do not apply to the University PE Requirement)

EQUS 200 - Special Topics 1-4 hours. An open theory/classroom course varying in content from year to year.

EQUS 205 - Introduction to Equine Science 4 hours. This course covers classroom studies of anatomy, nutrition, disease, and veterinary aspects of owning a horse or running a stable. Barn assignments deal with particular injuries and there are demonstrations with horses in terms of wrapping various wounds and treating common equine ailments.

EQUS 210 - Methods of Teaching English Riding 4 hours. Students in this course are required to observe teaching of classes and to discuss objectives and methods with the instructor. In time the student acts as apprentice teacher under the instructor's supervision.

When ready, the student assumes the role of instructor with the responsibility of setting up safety rules and class curriculum. The student's efforts are reflected in the riders' progress. Prerequisite: EQUS 103.

EQUS 211 - Methods of Teaching Western Riding 4 hours. Open to students with advanced experience in the western disciplines. Students will learn to teach beginning western pleasure skills. The student will progress from observation, to discussion of methods and teaching safety practices, to actually working with a beginner student in a supervised setting. Prerequisite: EQUS 112 or permission of instructor.

EQUS 215 - Equine Management 4 hours. This course is designed to provide practical experience in supervising barn management and equine care. Topics will include: stable management, general knowledge and observation of horse health, condition, dentistry, internal and external parasites, limb and hoof care, shoeing and trimming. Lab skills will include: clipping, banding, braiding, leg wraps, equipment application, fitting, and showmanship.

EQUS 216 - Horse Show Management 2 hours. Students learn what is involved in managing a horse show including planning, prize list, advertising, officials, knowledge of rules of sanctioning organizations, ordering awards. Students must be available to work some weekends at shows held at Equestrian Center. At the end of the semester, students manage their own show at the Center. (This course may be repeated one time for credit.)

EQUS 218 - Judging Horse Shows 4 hours. Open to students with advanced level riding skills in either English or Western riding. Students will learn how to evaluate and place conformation, halter and performance classes according to the standards set by various organizations and breeds of horses.

EQUS 223 - Hunter and Jumping Course Design 2 hours. Technical aspects and differences between hunter, jumper, equitation and stadium jumping courses will be discussed. Hands on application will be provided by assisting show managers with course design at shows at the Equestrian Center along with assisting instructors with setting jumps for jumping classes.

EQUS 225 - Equine Nutrition 2 hours. This course examines digestive physiology; involving carbohydrates, proteins, fats, minerals and vitamins. Also, a practical approach to proper feedstuffs and use of quality feedstuffs to maintain health and productivity of horses.

EQUS 385 - Internship in Equest Studies 1-4 hours. An off-campus project in the field serving as an intern in an area of equestrian studies. When the field experience is completed, a journal and final report is submitted.

EQUS 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

French

FREN 101 - French I 4 hours. Introduction to the language and culture of the French-speaking world; speaking, reading, understanding and writing. Practice in language lab. Emphasis on communicative skills. Assumes no prior knowledge of the language. (II)

FREN 102 - French II 4 hours. Continuation and further development of the skills learned in FREN 101. Prerequisite: FREN 101, 41-60% on French Language Placement Exam, or permission of instructor. (II)

FREN 200 - Special Topics 1-4 hours. Content varies. Prerequisite: FREN 102, 61% or higher on French Language Placement Exam, or permission of instructor.

FREN 201 - French III 4 hours. Continuation and further development of the skills learned in FREN 102. Prerequisite: FREN 102, 61% or higher on French Language Placement Exam, or permission of instructor. (II)

FREN 202 - French IV 4 hours. Continuation and further development of the skills learned in FREN 201. Prerequisite: FREN 201 or permission of instructor. (II)

FREN 210 - Global Perspectives: Paris 2 hours. A course enabling students to develop an understanding and appreciation of another culture, first in the classroom, and then two weeks in Paris. Focus is on history, art, and contemporary culture. Open to all students. (GP) (Alternate years)

FREN 300 - Special Topics 1-4 hours.

FREN 301 - Advanced French Conversation 4 hours. Intensive practice in speaking French, with particular attention to the French sound system. Topics for conversation are taken from contemporary French journals, newspapers, films, etc. Prerequisite: FREN 202 or permission of instructor.

FREN 302 - Advanced French Grammar and Composition I 4 hours. An analysis of the grammatical structure of the French language with emphasis on the more complex problems in French syntax and usage, followed by practice in composition. The course is conducted in French. Prerequisite: FREN 202 or permission of instructor. (Alternate years)

FREN 310 - Reading French Texts 4 hours. Intensive vocabulary building, writing, reading and discussion of texts in French. Designed to prepare students for other upper-level French courses. Prerequisite: FREN 202 or permission of instructor.

FREN 311 - French Literature I 4 hours. A historical-critical view of French literature from the Middle Ages through the 18th century. Readings from anthologies and selected complete texts from each period. Discussion and reading in French. Prerequisite: FREN 310 or permission of instructor.(Alternate years)

FREN 312 - French Literature II 4 hours. An overview of nineteenth and twentieth-century French literature. Readings from anthologies and selected complete works from the period. Discussions and readings in French. Prerequisite: FREN 310 or permission of the instructor.

FREN 313 - French Speaking Africa 4 hours. This course is an introduction to the cultures and literature of French-speaking Africa, including readings and discussions of works by contemporary Francophone African writers. (GP)

FREN 316 - Contemporary French Culture 4 hours. Introduction to the most important elements of present-day French culture, literature, film, art, and music. Recent history and politics, economics and social structure; religion, family, cuisine, and customs. Readings and discussions in French. Prerequisite: FREN 202 or permission of instructor. (Alternate years)

FREN 360 - Literary Theory Seminar 4 hours. This course is intended to introduce those students with a major or a minor in a foreign literature and language to Literary Theory and Criticism. Students will be using different types of theory to analyze texts in English and in their target language. This course will be required of all foreign language and literature majors and is recommended for those students with a minor in a foreign language. Prerequisite: FREN 202 or permission of instructor. Students may not retake this course for credit as GRMN or SPAN 360.

FREN 400 - Special Topics in French 1-4 hours. Content varies from year to year with topics such as French Women's Literature and Feminist Theory, Bilingualism in Quebec, Medieval French Literature, Ethnic Minorities in France, Caribbean French Culture. The course is conducted in French. Prerequisite: FREN 310 or permission of instructor.

FREN 410 - French Film Criticism 4 hours. Examines the basic elements of the art of French film in order to understand both the historical development of filmmaking in France and the personal vision of each director. Students view films by such filmmakers as Melies, Renoir, Carne, Truffaut, and Varda. (C) (GP)

FREN 450 - Independent Study 1-4 hours. For students with a particular interest in an aspect of French language or literature not covered in any established course. Approved Plan of Study required.

FREN 485 - Internship in French 1-4 hours. An off-campus project in consultation with faculty in the Division of Modern Languages. Students gain experience in a variety of careers involving French and related fields. The internship must be conducted in French. Requirements for this project include a journal, job evaluations, and a final report. May be taken during the summer or semester abroad. FREN 202 or equivalent proficiency recommended. (GP)

Geology

GEOL 101 - This Dynamic Earth 4 hours. An introduction to the nature of the materials that make up the earth, their genesis and arrangement (both inside the earth and at the surface) and to the physical processes that act upon them. Topics include: rocks and minerals, the structure of the earth, plate tectonics, land forms. Three lectures and a laboratory. (F1)

GEOL 103 - Earthquakes and Volcanoes 4 hours. This course reviews what is presently known about earthquakes and volcanoes, investigates ways to reduce loss of life and property, and explores some current research which may lead to a better understanding of these violent natural events. (F2)

GEOL 104 - Earth and Life through Time 4 hours. An introduction to the history of the earth and life on it, and to the techniques for "reading" these from the rock record. Topics include geologic time, sedimentary rocks and depositional environments, fossils, ancient and recent geologic events and the evolution of life. Three lectures and a laboratory. (F1)

GEOL 106 - Elementary Oceanography 4 hours. A study of the major contemporary concepts of biological, chemical, geological, and physical oceanography. The nature and origin of ocean basins, sea water composition, water masses, oceanic circulation, waves, tides, marine ecology, biological productivity, sedimentation, and plate tectonic theory are discussed. (F2)

GEOL 109 - The Physical World 4 hours. An inquiry-based exploration of Physics, Chemistry, and the Earth Sciences using New York state and planet Earth as principal subjects. (F2)

GEOL 110 - Lunar Geology 2 hours. This course studies and interprets the results of recent lunar studies within the framework of current cosmochemical models of the solar system. The study of moon rocks and geological maps of the moon is integrated with classical astronomical and geophysical data to develop an evolutionary history of our sister planet. (F2)

GEOL 200 - Special Topics in Geology 1-4 hours. This course discusses topics of either general or specific nature not covered in detail in other 100 or 200-level courses, for example the evolution and extinction of the dinosaurs. (Sufficient demand)

GEOL 201 - Surficial Geology 4 hours. In this study of the earth's surface materials, major topics include weathering and soil formation, glacial deposits, aeolian deposits, surface water hydrogeology and related geomorphology. Three lectures and one laboratory per week. Prerequisite: One of GEOL 101, GEOL 104, ENVS 101; or permission of instructor.

GEOL 210 - The Geology of Venus 2 hours. This course is intended to introduce students to the geology of Venus and to develop skills in acquiring and interpreting digital data and digital documents.

GEOL 220 - Geology of Mars 2 hours. This course is intended to introduce students to the geology of Mars and to develop skills in acquiring and interpreting digital data and digital documents. Some science background is expected. Prerequisite: one college-level science course or permission of instructor.

GEOL 301 - Structural Geology 4 hours. Students learn how to recognize deformational features such as folds, faults, joints and dikes; how to, correlate these with three dimensional geometric techniques such as folding lines and stereographic nets; and how to derive from these features the important tectonic parameters active at the time of their formation: maximum stress direction, principal stress differences, confining pressure and strain rate. Prerequisite: one geology course.

GEOL 302 - Mineralogy and Petrology 4 hours. Description, classification, and genetic interpretation of the rock forming minerals and the igneous and metamorphic rocks which are formed from them. Focus will be on mineral and rock associations in space and time, with emphasis on tectonic and environmental interpretations. Prerequisite: one 100-level geology course or permission of instructor.

GEOL 304 - Field Methods 2 hours. An introduction to the study of rocks in the field. Maps, their projections and their construction, are studied inside. Techniques of field geology will be practiced outside and skills in using surveying equipment and making observations of sedimentary, igneous and metamorphic rock are developed. Prerequisite: one geology course or permission of instructor.

GEOL 307 - Stratigraphy and Sedimentation 4 hours. The chemical and physical processes leading to weathering, erosion, transport, deposition, lithification and alteration of sediments are considered along with the economic aspects of sedimentary rocks, such as the occurrence of oil, natural gas, and coal. Prerequisite: one geology course or permission of instructor.

GEOL 400 - Special Topics in Geology 1-4 hours. A discussion of topics appropriate to current geological phenomena, including such topics as environmental geochemistry or economic geology. (Sufficient demand)

GEOL 408 - Tectonics 4 hours. The formation and evolution of cratons, rifts, Atlantic type margins, shear zones and island arcs are discussed in this course. A detailed study is made of the geological structure and history of the Appalachians, Rockies, Alps and Himalayas. (Alternate years)

GEOL 414 - Geophysics 4 hours. A study of the structure and evolution of the solid earth using information derived from geophysical investigations. The shape of the earth, its gravity, magnetic field, thermal and rheological characteristics as well as the gravitational fields are used to impose constraints on possible models of the planet. (Alternate years)

GEOL 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

GEOL 464 - Hydrogeology 4 hours. An examination of the hydrologic system as a whole and in parts. Emphasis is on subsurface water and hydrogeochemistry. Additional topics may include water use and management, water pollution, and flood control. Laboratories emphasize field and laboratory techniques of water quality and quantity analysis. Prerequisite: GEOL 201 or permission of instructor.

German

GRMN 101 - German I 4 hours. Introduction to the language and culture of the German-speaking world. Development of skills in speaking, reading, understanding and writing. Practice in language lab. Emphasis on communicative skills. Assumes no prior knowledge of the language. (II)

GRMN 102 - German II 4 hours. Continuation and further development of the skills learned in GRMN 102. Prerequisite: GRMN 101, 41-60% on German Language Placement Exam, or permission of instructor. (II)

GRMN 200 - Special Topics in German 1-4 hours. Content varies from year to year.

GRMN 201 - German III 4 hours. Continuation and further development of basic skills learned in GRMN 102. Includes introduction to short fiction and a review of grammar. Prerequisite: GRMN 102, 61% or higher on German Language Placement Exam, or permission of instructor. (II)

GRMN 202 - German IV 4 hours. Continuation of reading exercises and grammar review from GRMN 201. Further development of listening and speaking skills. Prerequisite: GRMN 201 or permission of instructor. (II)

GRMN 301 - Advanced German Conversation and Composition 4 hours. Exercises for students to speak and write more precisely and idiomatically. Newspaper and journal articles, videos and other media are the basis for conversation and writing. Readings, discussions, and assignments are in German. Prerequisite: GRMN 202 or permission of instructor.

GRMN 312 - German Literature I 4 hours. An introduction to literature of the German-speaking world through texts of the eighteenth and nineteenth centuries. Readings include essays, plays, novellas, and poetry. Particular attention is given to the role of class, gender, race and religion in the texts, their production and reception. Readings, discussions and assignments are in German. Prerequisite: GRMN 202 or permission of instructor.

GRMN 313 - German Literature II 4 hours. Literature of the German-speaking world from the twentieth century. Readings include theory and the following genres: journals, short stories, novellas, plays, novels, and poetry. Includes an introduction to German film. Particular attention is given to the role of class, gender, race and religion in the texts, their production and reception. Readings, discussions, and assignments in German. Can be taken as a continuation of GRMN 312 or may be taken independently. Prerequisite: GRMN 202 or permission of instructor. (GP)

GRMN 316 - German History and Culture 4 hours. Cultural and historical development of the German-speaking world from accounts of the earliest Germanic tribes to post-unification Germany of the 1990s and twenty-first century. Readings, discussions and assignments are in German. Prerequisite: GRMN 202 or permission of instructor. (GP)

GRMN 360 - Literary Theory Seminar 4 hours. This course is intended to introduce those students with a major or a minor in a foreign literature and language to Literary Theory and Criticism. Students will be using different types of theory to analyze texts in English and in their target language. This course will be required of all foreign language and literature majors and is recommended for those students with a minor in a foreign language. Prerequisite: GRMN 202 or permission of instructor. Students may not retake this course for credit as FREN or SPAN 360.

GRMN 400 - Special Topics 1-4 hours. Special topics may include: Literature and Film of the former GDR, History of the German Language, German Literature of the Renaissance, Contemporary Writers in the German-speaking World, Minority Writers in Germany, and The History of Jews in Germany. Readings, discussions and assignments are in German. Prerequisite: 300-level German course or permission of instructor.

GRMN 410 - History of German Cinema 4 hours. This course is a survey of the German cinema from its beginning to the most recent developments. The aim of the course is to equip students with a sufficient historical background to grasp the compromises filmmakers have had to make between political and aesthetic goals, or between cinematic experimentation and accessible narratives. Students are introduced to basic film terminology and techniques as well as to contemporary film criticism. The course is taught in English. Prior knowledge of German is recommended but not required. (GP)

GRMN 450 - Independent Study 1-4 hours. For students with a particular interest in an aspect of German language, culture or literature not covered in any established course. A 4-hour independent study is required of German majors. Approved Plan of Study required.

GRMN 485 - Internship in German 1-4 hours. An off-campus project in consultation with faculty in the Division of Modern Languages. Students gain experience in a variety of careers involving German and related fields. The internship must be conducted in German. Requirements for this project include a journal, job evaluations, and a final report. May be taken during the summer or semester abroad. GRMN 202 or equivalent proficiency recommended. (GP)

Gerontology

GERO 118 - Introduction to Adult Development and Aging 4 hours. This course examines adulthood and aging from a biopsychosocial perspective. Topics include research methodology in adulthood; theories of normal aging, physical and environmental influences on adult development; diseases and disorders associated with aging; changes in cognition; intelligence and wisdom; gender and minority issues in aging; issues regarding death and dying. It also challenges popular misconceptions about aging. (Cross-listed as PSYC 118) (E)

GERO 300 - Special Topics in Gerontology 1-4 hours. A series of directed readings on special topics, changing from semester to semester. Through a combination of reading, seminar feedback, and guest lectures, students are able to explore areas of special interest in greater depth. Prerequisite: PSYC 101. Recommended GERO 118 or permission.

GERO 429 - Cognition and Aging 2 hours. A lecture and discussion course covering current research and theories of cognitive processes in the older adult. Basic topics include age differences in memory, verbal processes, motor performance, perception, problem solving, and intelligence. Prerequisite: PSYC 101. Recommended: PSYC 332 or GERO 118 or permission of instructor. (Cross-listed as PSYC 429) (Alternate years)

GERO 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

GERO 485 - Gerontology Internship 4 hours. Field work associated with federal, state or local agencies for the aging, or with social service, health care, legal, recreational or residential facilities primarily serving older adults. Supervision provided jointly by agency personnel and the instructor. At least 6 hours per week in a field placement is expected. Prerequisites: Senior Gerontology major and permission of instructor.

GERO 497 - Senior Seminar in Gerontology 2 hours. An advanced discussion group focusing on a variety of contemporary issues. Prerequisite: Senior Gerontology major or permission of instructor.

Global Studies

GLBS 101 - Introduction to Global Studies and Intercultural Communication 4 hours. This course introduces students to an overview of contemporary human patterns from geographic, environmental, linguistic, socio-cultural, religious, political, and economic perspectives. From this global framework, students learn to communicate (and think) across cultures. (E) (GP)

GLBS 105 - The World Using Geographic Information Systems (GIS) 4 hours. This course teaches critical thinking skills and spatial literacy through the use of geospatial technology to explore contemporary global issues.

Students utilize geospatial technology to better understand the spatial relationships of global climate, people and resources. (F2) (GP)

GLBS 200/300/400 - Special Topics 1-4 hours. An open course, varying in content from year to year, which allows for concentration in specialized areas. (Sufficient demand)

GLBS 305 - Belize and the Caribbean 2 hours. (see BIOL 305) (GP)

GLBS 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

GLBS 495 - Global Issues Seminar 4 hours. This integrative capstone course allows seniors to study a variety of global issues in-depth and to present the results of their own particular global experiences and studies. Topics examined will vary from year to year. The seminar may be focused on a central theme or on a variety of issues, depending upon the students' international interests and the instructor's discretion. Prerequisites: GLBS 101; Study Abroad; senior standing. (Cross-listed as ANTH 495 and SOCI 495)

History

HIST 107 - The World in the 20th Century 4 hours. Surveys political, social, economic, and intellectual movements shaping twentieth century states and peoples. Special attention is devoted to the decline of European hegemony, the rise of the United States, and the evolution of "emerging" nations in Asia, Africa, and the Americas. (D) (GP)

HIST 110 - The Making of Europe 4 hours. An investigation into the origins and development of Europe, from ancient civilizations to 1650. Focus on the formation of nations, empires, and ideologies; social and cultural developments; and cultural interactions within and beyond Europe's borders. (D)

HIST 111 - Modern Western History 4 hours. A survey of developments in Europe and the Western Hemisphere since the 1500s, with emphasis on the impact of ideas and ideologies (including Fascism, Nazism, and Communism), social and economic change (including industrialism), revolutions and world wars, and imperialism. (D) (GP)

HIST 120 - The Ancient Mediterranean 4 hours. Survey of civilizations that helped shape modern-day Eurasia and North Africa - Mesopotamia, Egypt, Minoan Crete, Israel, Greece, Persia, and Rome. Emphasis on the interaction of these cultures around the Mediterranean Sea. Evaluation based on short papers, exams and quizzes, and participation. (D)

HIST 121 - Medieval Cultures 4 hours. Exploration of the three dominant cultures of the medieval period: Europe, the Byzantine Empire, and the Islamic world, with a special focus on their interactions. (D)

HIST 151 - The Rise and Fall of Iberia, 1450-1950 4 hours. An introduction to the development of European nationalism, global trade, and imperialism, using the cases of Portugal and Spain. Emphasis will be on politics and culture; cultural interaction in Africa, Asia, and the Americas; and the empires' legacies in the modern world. (D)

HIST 200/300 - Topics in History 1-4 hours Studies of different historical themes, with topics varying each time the course is given. (Sufficient demand)

HIST 211 - American History I 4 hours. American history from Jamestown to the Civil War with particular attention to the political, social, and economic development of the new nation. (D)

HIST 212 - American History II 4 hours. American life from the Civil War to the present with particular attention to the transformation from a rural to an urban society, movements for social reform, and the further extension of civil and political rights. Can be taken as a continuation of HIST 211 or may be taken independently. (D)

HIST 301 - America in War during the 20th Century 4 hours. With reference to both World Wars, Korea, Vietnam, and the Gulf War, the course addresses origins, strategy and leadership, political and social effects, and moral and legal issues including the army code of conduct, Hiroshima, the Nuremburg Trials, and Mylai. (GP) (Alternate years)

HIST 302 - The Vietnam War 4 hours. A survey of America's longest and most controversial war, the course examines both military and domestic issues. (Alternate years)

HIST 303 - The Civil War Era: 1830-1877 4 hours. A study of the War Between the States, including analyses of the political, social, economic, and ideological differences between the sections; the war and its aftermath; the historiography of the war: and an evaluation of the traditional view of the war as the "watershed" of American history. (Alternate years)

HIST 306 - Prosperity and Depression: America 1919-1941 2 hours. A survey of the Roaring Twenties and the Great Depression. The course examines political, social, and economic developments, as well as the importance of cultural phenomena like Lindbergh's flight, the impact of movies, the rise and fall of the KKK, and the stock market crash. (Sufficient demand)

HIST 307 - Post-World War II America 4 hours. A historical survey of domestic events since World War II with particular attention to the fate of the New Deal, McCarthyism, the Kennedy legacy, the impact of Vietnam, and the civil rights and women's movements. (Alternate years)

HIST 308 - Americans and Their Environments 4 hours. An inquiry into Americans' attitudes toward and relationships to environments they encounter and create, ca. 1600 - present. Topics include "Nature," industrialization, fine arts and architecture, government and citizen actions, and the impact of the U. S. on global resources.

HIST 309 - Israelis, Arabs and American Foreign Policy 2 hours. A historical survey of the Arab-Israeli conflict from the nineteenth-century beginnings of Zionism to the Second Intifada, with special attention to the role played by the USA.

HIST 312 - Early Medieval Europe, 400-1050 4 hours. This course covers European history from the end of the Roman Empire to the beginning of feudal society. Through reading, lectures and discussions, students discover that the "Dark Ages" were actually filled with activity and innovation. (Alternate years)

HIST 313 - The High Middle Ages and the Renaissance 4 hours. This course covers Europe from the High Middle Ages to the Renaissance. Through reading, writing, and discussion, students learn about the political, cultural, intellectual, religious and social issues of the period that shaped our modern worldview. (Alternate years)

HIST 315 - Nineteenth-Century Europe 4 hours. Examines the period 1789-1914 by focusing on political, economic, social, and cultural developments. Subjects covered include the French Revolution, the Industrial Revolution, Conservatism, Liberalism, Socialism, Romanticism, Nationalism, Imperialism, Anti-Semitism, and the origins of World War I.

HIST 316 - Twentieth-Century Europe 4 hours. Examines the period 1914-present by focusing on political, economic, social, and cultural developments. Subjects covered include World War I, the Russian Revolution, Fascism, Nazism, Soviet Communism, World War II, the Cold War, decolonization, Communist collapse, and the European Union. (GP)

HIST 318 - North Africa in Modern Times 4 hours. Examines the rise of Islam and the history of North Africa, with primary emphasis on the colonial and post-colonial eras during the nineteenth and twentieth centuries. Prerequisite: One 100- or 200-level history course. (GP)

HIST 319 - Middle East in Modern Times 4 hours. Examines the rise of Islam and the history of the Middle East, with primary emphasis on the colonial and post-colonial eras during the nineteenth and twentieth centuries. (GP)

HIST 320 - Europe and the Americas, 1450-1750 4 hours. An inquiry into the dynamics and results, for both Natives and Europeans, of encounters between them. Included are assumptions and situations of each side, conflicts and cooperation among groups, and adaptations of Europeans to the new environment and Natives to European presence. No prerequisite.

HIST 322 - Churchill, Stalin, Roosevelt, Hitler 2 hours. A biographical approach to the Great Depression and World War II period. (GP)

HIST 324 - Gay American History 4 hours. What is gay and lesbian history? Why write it? Who should be included? The course addresses these and other questions as it outlines theoretical problems and possible content in the study of homosexual behavior and identity in America, and reactions to it since the seventeenth century. Prerequisite: sophomore standing or permission of instructor. (Cross-listed as WMST 324) (Alternate years)

HIST 359 - History of Chinese Thought 4 hours. (see RLGS 359)

HIST 365 - The British Isles in the Middles Ages 4 hours. The history of the British Isles from the Anglo Saxon invasions to the end of the Tudor dynasty. Focus on the interrelationship of all four regions--England, Wales, Scotland, and Ireland--in the Middle Ages. (Sufficient demand)

HIST 371 - American Diplomacy: 1763-1898 2 hours. An analysis of American foreign policy in the eighteenth and nineteenth centuries, with special attention to the domestic attitudes and developments which affected the diplomacy of continental expansion. (Sufficient demand)

HIST 372 - America as a World Power, 1898-Present 4 hours. American diplomacy in the age of mass production, world wars, fascism and communism including close scrutiny of the conflict between isolationism and internationalism. (Alternate years)

HIST 374 - American Women: History and Herstory 4 hours. Historical survey of the American woman with emphasis upon the birth of the women's movement, Progressivism and suffrage, home and work, and the recent liberation phase. (Cross-listed as WMST 374) (Alternate years)

HIST 375 - The Creation of American Culture 4 hours. An examination of the dynamics of both "serious" and "popular," culture in nineteenth century America, with specific attention to their interaction, as well as to the relationships between the developing political/social ideology and the creative activity of the era. (Alternate years)

HIST 376 - Modern American Culture 4 hours. An examination of the variety of artistic expression, both "serious" and "popular," in 20th century America, with particular attention to relationships between artistic media, democratic ideals, economics, and technology.

HIST 377 - History of American Slavery 2 hours. A history of American slavery and race relations from the 17th century until emancipation. (Sufficient demand)

HIST 383 - The Nazi Holocaust 2 hours. This course will cover a number of topics, including German anti-Semitism and the means by which Hitler engineered the Final Solution. Half the course will focus on the Nazis, the other half on their victims. It concludes with a discussion of Holocaust "denial" and the nature of evil. (GP)

HIST 385 - Internship in History 1-4 hours. Internship under supervision. Available irregularly.

HIST 387 - Modern France, 1815-Present 4 hours. A historical survey of the development of modern France. Particular attention is given to the emergence of a modern democratic society and the attempt to resolve a revolutionary heritage. (GP) (Alternate years)

HIST 388 - Empire and Nation in Eastern Europe 4 hours. Examines the transition from empire to nation in Eastern Europe, with emphasis on the era since 1914. Prerequisite: One 100- or 200-level history course. (GP)

HIST 421 - The Age of Franklin and Jefferson 4 hours. This course examines the transformation of the colonies into an independent federation, with particular attention to paradoxes symbolized in the lives and thought of Franklin and Jefferson. Includes thorough studies of the Revolution and its legacy, the U.S. Constitution, and the social, economic, and intellectual dynamics of the early republic. Prerequisite: sophomore standing or permission of instructor. (Alternate years)

HIST 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

Interdisciplinary Art

IART 101 - Interdisciplinary Art I 4 hours. Thematically-organized foundation course. Creative projects combine studio work with art theory. Instruction in wide range of visual media. Approaches and techniques include drawing from observation, abstraction, color theory, and painting as well as exposure to associated conceptual issues. (C)

IART 102 - Interdisciplinary Art II 4 hours. Continuation of IART 101.
IART 103 - Interdisciplinary Art III 4 hours. Continuation of IART 102.
IART 104 - Interdisciplinary Art IV 4 hours. Continuation of IART 103.

IART 200 - Studio Topics in Interdisciplinary Art 1-4 hours. Specialized studio areas are offered. The area changes each time the course is taught. Prerequisite: completion of an art foundation program.

IART 300 - Special Topics in Interdisciplinary Art 1-4 hours. Specialized art theory or studio areas are offered. The topic changes each time the course is taught.

IART 377 - The Good Stuff: Found Object in Sculpture, Installation and Performance 4 hours. Through object experiments and spatial investigations, students examine the fundamental techniques of found object artwork. Students use accumulated or altered mass-manufactured objects in the disciplines of traditional assemblage sculpture, site-specific installation and prop-driven performance art. Prerequisite: completion of an art foundation program or permission of instructor.

IART 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

IART 460 - Interdisciplinary Art Seminar 4 hours. A topical seminar primarily for Interdisciplinary Art majors. Topics vary from year to year. (Sufficient demand)

IART 470 - Individual Project: Senior Studio 4 hours. Seniors work independently on projects that extend their application of the concepts, techniques, and practices relevant to art making, with significant attention paid to clarifying and refining the Senior Show presentations. With emphasis on in-depth query and purposeful research, this is a self-directed, capstone studio course with an emphasis on the verbal and written articulation of the "what" and "why" of studio practice. Open to Interdisciplinary Art majors with senior standing.

IART 485 - Interdisciplinary Art Internship 1-4 hours. Internship under supervision in such agencies as a regional art council, museum, gallery, etc. Available irregularly.

Italian

ITAL 101 - Italian I 4 hours. Introduction to the language and culture of the Italian-speaking world; speaking, reading, understanding, and writing. Practice in language lab. Emphasis on communicative skills. Assumes no prior knowledge of the language. (II)

ITAL 102 - Italian II 4 hours. Continuation and further development of the skills learned in ITAL 101. Prerequisite: ITAL 101 or permission of instructor. (II)

ITAL 200 - Special Topics in Italian 1-4 hours. Content varies from year to year. Prerequisite: ITAL 102 or permission of instructor.

ITAL 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

Latin

LATN 101 - Latin I 4 hours. An Introduction to the Latin language. This course includes an introduction to basic Latin grammar as well as short reading passages. The focus of this course will be on classical Latin. There will be some emphasis on pronunciation and spoken Latin. There will be readings in English on both the history of Latin as an Indo-European language as well as on Roman history. (II)

LATN 102 - Latin II 4 hours. An introduction to the Latin language. This course will continue the study of grammar from Latin I. There will be selected readings from Caesar, Ovid and other writers. Class work will include reading texts aloud and analyzing translations. Historical readings will focus on the effects of Romanization in Europe even after the collapse of the Roman Empire. Prerequisite: LATN 101 or permission of instructor. (II)

LATN 201 - Latin III 4 hours. Continuation and further development of basic skills learned in LATN 102. Includes a grammar review and an introduction to longer reading passages from a variety of writers and genres. Reading texts will include myths, literary texts, political speeches, excerpts from histories and philosophical texts. Prerequisite: LATN 102 or permission of instructor. (II)

LATN 202 - Latin IV 4 hours. Continuation of LATN 201. A basic introduction to Latin grammar, syntax, and vocabulary is assumed. The goals of this class include the development of the ability to read longer texts and do so with an understanding of the context of the work. Through reading, students develop confidence in their ability to translate and understand Latin. Prerequisite: LATN 201 or permission of instructor.

LATN 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

Liberal Arts and Sciences

LAS 100 - Special Topics 1-4 hours. Opportunities are provided for the examination of interdisciplinary topics not normally justified as regular offerings. Topics vary from year to year.

LAS 101 - Transfer Student Seminar 0 hours. Course meeting once a week to integrate College of Liberal Arts and Sciences transfer students into the academic and campus community at Alfred University. Skills building and extracurricular activities emphasized. Graded Pass/Fail.

LAS 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course by the student in the Individually Structured Major program, under supervision of the student's ISM board. Approved Plan of Study required.

LAS 495 - Baccalaureate Project 4-6 hours. Senior project within the Individually Structured Major Program under supervision of the student's Advisory Board. Prerequisite: Permission of Advisory Board Chair.

Linguistics

LING 120 - Introduction to Linguistics 4 hours. This course introduces key concepts in the study of language. Among the questions are considered are the following: What does knowing a language entail? Is there a language instinct? How are languages similar and how do they differ? How are languages structured? How do we acquire language? What is the relationship between language and society? And how do languages change? The course covers the basic aspects of language structure (language sounds, the structure of words and sentences, and meaning), psychological and social aspects of language, and language change.

Mathematics

MATH 101 - Communicating with Numbers 4 hours. Topics include ratios and proportions, proportionality as distinct from proportions, constant of proportionality, rates, percentages, total change vs. percent change, and handling data. (III)

MATH 102 - Mathematics for Early Childhood/Childhood Teachers 4 hours. This is a content course for early childhood/childhood education majors. Topics may include: problem-solving, whole number computation, number theory, rational numbers, decimals, percents, fractions, and introductory geometry. (III)

MATH 107 - Calculus Concepts for the Social Sciences 4 hours. The purpose of this course is to provide students with a firm foundation in the basic concepts of calculus. Considerable time will be spent on functions, and understanding functions as a relationship between two quantities: input and output. Examples from business and social sciences will emphasize real world applications and data-sets. Mathematical models will motivate the study of how functions change, with a heavy use of technology replacing traditional algebraic manipulations. Not open to students with credit in MATH 151. (III)

MATH 151 - Calculus I 4 hours. An introduction to differentiation and integration of functions of a single variable, with applications. Four years of college preparatory mathematics strongly recommended. Not open to students with credit in MATH 152. (III)

MATH 152 - Calculus II 4 hours. A continuation of single variable calculus including transcendental functions, methods of integration, and series. Prerequisite MATH 151. Not open to students with credit in MATH 253.

MATH 253 - Calculus III 4 hours. Multivariate calculus, derivatives and integrals of vector functions with Stoke's and Green's theorems. Prerequisite: MATH 152.

MATH 271 - Differential Equations 3 hours. Ordinary differential equations with applications to the sciences. Prerequisite: MATH 253.

MATH 281 - Foundations of Higher Mathematics 4 hours. An introduction to logic and proof: Topics include sets, symbolic and predicate logic, inductions, and cardinality. Prerequisite: MATH 253.

MATH 331 - Mathematics from a Historical Perspective 3 or 4 hours. This course explores a wide variety of topics in the history of mathematics, from the development of numeral systems to the structure of the modern mathematical community. Many of these topics are explored through mathematics many heroes. Prerequisites: MATH 253, ENGL 102.

MATH 351 - Introduction to Operations Research 4 hours. Optimization techniques with application to decision making. Linear programming and other topics, e.g., network analysis, dynamic programming, game theory, stochastic processes, queueing theory.

MATH 371 - Linear Algebra 4 hours. The concepts of vector space, independence, basis and linear transformations, with applications to systems of linear equations, eigenvalue problems and bilinear and quadratic forms. Prerequisite: MATH 253.

MATH 381 - Mathematical Statistics 3 hours. The theoretical basis for statistics including probability, random variables, expectation, a curve of important probability distributions, sums of independent random variables, and confidence intervals. Prerequisite: MATH 152.

MATH 382 - Actuarial Exam Preparation 1 hour. Content includes definitions and applications in risk management and insurance using calculus-based probability theory. Taken in preparation for the Society of Actuaries Exam P/Casualty Actuarial Society Course 1 exam. Prerequisite: MATH 381.

MATH 400 - Topics in Mathematics 1-4 hours. Special topics in mathematics which vary from year to year. (Sufficient demand)

MATH 401 - Advanced Engineering Mathematics 4 hours. Fundamental concepts of applied analysis including Fourier series and integrals, Laplace transforms, partial differential equations and boundary value problems and special functions. Prerequisite: MATH 271.

MATH 421 - Numerical Mathematics 4 hours. An introduction to numerical methods including solution of linear systems and non-linear equations, interpolation and approximation of functions, numerical integration and numerical solution of differential equations. Prerequisite: MATH 253.

MATH 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required. Open to qualified third and fourth year students. Independent study is required of all candidates for departmental honors.

MATH 461 - Geometry 4 hours. An introduction to both Euclidian and non-Euclidian geometry, with emphasis on the axiomatic method and its place in the current secondary mathematics curriculum. Prerequisite: MATH 253.

MATH 481 - Modern Algebra 4 hours. The fundamental structures and techniques of algebra including topics such as groups, rings, fields, quotient structures, theory of equations and polynomials. Prerequisite: MATH 281.

MATH 491 - Advanced Calculus 4 hours. Elements of real function theory including some notions from logic, the topology of the real line, continuity, uniform continuity, differentiation and limits of sequences. Prerequisite: MATH 281.

Music

History and Theory

MUSC 110 - Music Appreciation 4 hours. An introductory course which introduces students to a wide variety of music, focusing on the evolution of Western European Classical music, but also touching upon American popular forms and some World Music. The course examines the historical and social background of classical music and emphasizes art of listening. (C)

MUSC 120 - Music Theory I 4 hours. A study of the basic rudiments of music--notation, pitch, rhythm, melody and harmony and how these elements combine to create music. The course includes music writing (elementary composition), ear training (recognition of melodic, rhythmic and harmonic patterns) and dictation (the ability to write these patterns in traditional music notation). A background in music, such as playing an instrument or vocal/choral experience, is recommended.

MUSC 130 - Beginning Class Piano I 2 hours. Class lessons in piano technique for the beginner. Covers basics of tone conception, rhythm, articulation, and fingering, five-finger patterns and tonic chords in major keys. Simple composition projects are a requirement of the course. No previous musical training required. (C)

MUSC 131 - Beginning Class Piano II 2 hours. A continuation of MUSC 130. Beginning work in pedaling and phrasing, easier major scales and one minor scale in three forms, primary chords in major and minor in block and arpeggio from, composition, transposition and harmonization. Prerequisite: MUSC 130 or permission of instructor. (C)

MUSC 132 - Beginning Voice Class I 2 hours. Group lessons in technique and the art of singing. Class presents the practical application of vocal techniques, breath support, posture, diction and projection to increase the student's ease and confidence in using the singing voice as a means of expression. Outside reading and listening is required of students. (C)

MUSC 135 - Beginning String Class I 2 hours. Open to all students interest in learning a string instrument. Group lessons in basic note-reading and technical skills. Students may select violin, viola, cello or bass; University instruments are available. This course assumes no prior knowledge of music. (C)

MUSC 136 - Beginning String Class II 2 hours. A continuation of MUSC 132 with emphasis on further development in tone. Prerequisite: MUSC 135 or permission of instructor. (C)

MUSC 200 - Special Topics 1-4 hours. Includes courses in related areas of study. If applicable, small rental fee or breakage deposit required for applied music courses such as woodwinds class, Celtic music, etc. (Sufficient demand) One four-hour topics course is required for the minor and also fulfills the "C" credit for General Education. (C)

MUSC 211 - World Music 4 hours. World Music is an exploration of Non-Western European music. It is an introduction to the study of "ethnomusicology" and the role of music in society at large and a broad-ranging view of how this role is fulfilled in a variety of cultures. The course will focus on the indigenous cultures and music of Native America, Latin America, Africa, Eastern Europe, India, Indonesia and East Asia (Japan and Korea). Student projects will explore the popular music of one or more of these areas. (C) (GP)

MUSC 212 - American Music 4 hours. This is a listening/survey course of the music of the United States from colonial times to the present. The course will examine the historical and social backgrounds of the incredible diversity of American Music, including Native American, Classical and Popular music through the ages, Folk, Jazz and the beginnings of Rock `n Roll. Students will also learn basic skills on a folk instrument (lap dulcimer, recorder, guitar) to give a hands on approach to learning American Folk Music. (C)

MUSC 213 - Introduction to Jazz 2 hours. This course examines the origins of jazz, how it was created and the directions it has taken. We discuss the history of jazz and consider social reactions to the music and artists by listening and by reading historical writing. (C)

MUSC 220 - Music Theory II 4 hours. This course develops students' understandings of harmonic compositional practices of 17th through 19th century music. Students continue the study of composition and analysis and become more proficient with harmonic analysis using figured bass, bass position symbols, and Roman numerals. Prerequisite: MUSC 120.

MUSC 332 - Advanced Voice Class 2-4 hours. A continuation of MUSC 132. Continued work on vocal technique and expression with additional emphasis on singing in foreign languages (Italian and German diction). Students will learn and the use the IPA - the International Phonetic Alphabet. Prerequisite: MUSC 132 or permission of the instructor.

MUSC 335 - Advanced Violin Class 1 hour. Open to violinists of intermediate to advanced skills. Focus is on a new approach to scales and etudes, resulting in a greater violinistic understanding of the music and command of the instrument.

MUSC 450 - Independent Study 1-4 hours. Specialized pursuit of a subject within an area of music history or literature not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

Applied Music

MUSC 101-108 - Private Lessons 1 hour. Open to all students. One half-hour private lesson per week. Private lesson fee includes the use of practice rooms.

MUSC 301-308 - Private Lessons, Advanced 2 hours. Advanced study. One-hour lesson per week. Private lesson fee. Permission of instructor required.

MUSC 495 - Senior Recital 1 hour. Students enrolled in Private Lessons for at least six semesters are encouraged to present a half or full recital during their Senior Year.

Ensembles

MUSC 271 - University Chorus 2 hours. University Chorus, a large singing ensemble is open to all students. The repertoire varies from traditional to global to popular and musical theatre. A major work is performed every other semester with the AU orchestra. Previous works include Handel's "Messiah", Vivaldi's "Gloria", Mozart's "Requiem" and Orff's "Carmina Burana". (C)

MUSC 272 - Chamber Singers 2 hours. The Alfred University Chamber Singers, a select vocal ensemble of 20-30 singers, performs a wide variety of repertoire in concerts on and off campus. Open to all students by audition. (C)

MUSC 273 - Symphonic Band 2 hours. Band members study and perform music composed and arranged for the modern symphonic band, including orchestral transcriptions. Various styles of music, from classical to contemporary, are performed, including major symphonic and concert band literature. (C)

MUSC 274 - Jazz Ensemble 2 hours. The Jazz Ensemble provides an opportunity to explore the many styles of jazz in a big band context, including swing, be bop, Latin, and fusion. Students are also given the chance to develop their skills in improvisation. Open to all students by audition. (C)

MUSC 275 - University Symphony Orchestra 2 hours. Open to all students, the symphony orchestra provides students an opportunity to study music ranging from the classical era to the 20th Century. The ensemble presents a concert each semester which often features student soloists. A major work is performed every other semester with the AU Chorus. Previous works include Handel's "Messiah", Vivaldi's "Gloria", Mozart's "Requiem" and Orff's "Carmina Burana". (C)

MUSC 279 - Chamber Music 1 hour. Chamber Music refers to small ensembles (string quartets, woodwind quintets, flute duets/trios/choirs; piano trios [piano plus two other instruments] or virtually any combination of instruments and/or voices). Students will be assigned to a group and will work on classical music for their particular ensemble. Students enrolled in this class should have at least a moderate facility on their instrument and be able to read music.

Philosophy

PHIL 101 - Introduction to Philosophy 4 hours. This course provides students who have had little or no acquaintance with philosophy with a workable knowledge of philosophical language and familiarity with its method. (B)

PHIL 201 - Existentialism 4 hours. An elementary study of the interpretation of human existence by selected existentialist thinkers. (Sufficient demand) (B)

PHIL 281 - Ethics 4 hours. An attempt to understand the fundamental human alternatives in the wake of the moral skepticism of our age. Traditional answers to the question "What is the good life?" will be examined by reading selected philosophers from Plato to Sartre. (B)

PHIL 282 - Introduction to Logic 4 hours. Standard propositional logic, quantifier logic, and informal fallacies. Logical concepts are compared with some concepts of the English language. Discusses the nature of formal systems and emphasizes the development of proof techniques. Recommended for pre-law students.

PHIL 283 - Philosophy of the Arts I 4 hours. Conceptual analysis of the arts and what they reveal about human existence. Emphasis is placed on questions about creativity and meaning. Topics include representation and truth, expression, art and language, and the nature of cultural regularities. Special emphasis on the rise of modernism and formalism. (B)

PHIL 300 - Topics in Philosophy 1-4 hours. Varying topics from year to year are selected from either the history of philosophy or contemporary philosophic problems. Prerequisites vary depending on the topic. (Sufficient demand)

PHIL 303 - Women, Knowledge and Reality 2-4 hours. Conceptual foundations of the movements for the liberation of women are central. Readings are drawn from contemporary writings in feminist theory with particular attention to discussions of knowledge, values, and reality. Prerequisite: A previous philosophy course, WMST 101, or permission of instructor. (Cross-listed as WMST 303) (Sufficient demand)

PHIL 309 - Philosophical Psychology 4 hours. Logical analysis of concepts about the mind, emphasizing problems of meaning for such terms as sensation, imagination, emotion, memory, dreams, intention, belief, reason, motivation, consciousness and personal identity. Methods of psychological explanation are also studied. (Sufficient demand) (Cross-listed as PSYC 309)

PHIL 311 - Greek Philosophy 4 hours. The history of Greek philosophy from the Presocratic through the Hellenistic period. Gives special emphasis to Plato and to Aristotle. (Alternate years)

PHIL 312 - Modern Philosophy 4 hours. The history of European Philosophy during the l7th and 18th centuries. Examines figures whose thought reflects the rise of modern science and the emergence of the modern state. Emphasis given to such thinkers as Hobbes, Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, and Kant. (Alternate years)

PHIL 321 - Nietzsche 4 hours. Nietzsche is considered as 19th century philosopher and precursor of 20th century thought. Topics include: Nietzsche's perspectivism, theory of interpretation, genealogical critique of morality, religion and history, and ideas about art, tragedy, will to power, eternal recurrence, and the overman.

PHIL 341 – Modern Political Theory 4 hours. (see POLS 341)

PHIL 359 - History of Chinese Thought 4 hours. (see RLGS 359)

PHIL 382 - Philosophy of Religion 4 hours. A critical inquiry into the nature and validity of religious experience, its variety and unity, and its relation to other human endeavors. Particular attention given to the manifestations of religion in the institutions of the Western world. (Sufficient demand)

PHIL 383 - Philosophy of the Arts II 4 hours. Continued study of the question of meaning in art emphasizing the problem of interpretation. Models for criticism and contemporary debates about postmodern culture are examined. Topics include the relativity of interpretations, the role of styles and traditions, and the relationship of different artistic media to each other. Prerequisite: PHIL 283 or permission (Sufficient demand)

PHIL 388 - Topics in Metaphysics 2-4 hours. Metaphysical topics concern very basic questions about reality such as: How can things change and be the same? What constitutes personal identity? What is time? If the world is deterministic, can people be free? and, Does any kind of God exist? Prerequisite: completion of at least one philosophy course or permission of instructor. (Sufficient Demand)

PHIL 400 - Topics in Philosophy 1-4 hours. Varying topics from year to year are selected from either the history of philosophy or contemporary philosophic problems. Prerequisites vary depending on the topic. (Sufficient demand)

PHIL 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

Physics

PHYS 111 - Introductory General Physics I 4 hours. A lecture and laboratory course which includes mechanics, wave motion and sound, fluids and heat. Calculus is not used but some knowledge of algebra and trigonometry is assumed. (F1)

PHYS 112 - Introductory General Physics II 4 hours. A lecture and laboratory course including electricity and magnetism, optics, and some modern physics. Calculus is not used but some knowledge of algebra and trigonometry is assumed. Prerequisite: PHYS 111 or PHYS 125. (F1)

PHYS 125 - Physics I 4 hours. A calculus-based lecture and laboratory course which includes one and two dimensional kinematics and dynamics, the work energy theorem, conservation of energy, the impulse momentum theorem, conservation of momentum, rotational and simple harmonic motion and gravitation. Prerequisite: MATH 151. (F1)

PHYS 126 - Physics II 4 hours. This calculus-based lecture and laboratory course includes electric field and potential, direct and alternating current circuits, magnetism and magnetic induction and an introduction to electromagnetic and other waves. Prerequisites: MATH 152 and PHYS 125. (F1)

PHYS 200 - Special Topics in Physics 1-4 hours. Topics vary from year to year and are designed especially for, but not limited to, non-science majors. Typical topics might be light and color, music and sound; or laboratory topics to include aspects of physics of interest to artists, musicians, photographers, environmentalists, etc. (Sufficient demand)

PHYS 325 - Elementary Optics 3 hours. This course discusses geometrical and wave optics with special emphasis on optical instruments. Prerequisite: PHYS 126.

PHYS 326 - Elementary Modern Physics 3 hours. This course includes basic relativity, quantum and waves aspects of radiation and particles, atomic structure, and an introduction to nuclear physics properties. Prerequisite: PHYS 126.

PHYS 341 - Advanced Physics Laboratory 2 hours. A laboratory course involving experiments in mechanics, acoustics, heat, optics, electricity, and magnetism, electronics and atomic and nuclear physics. Prerequisite: PHYS 126.

PHYS 400 - Special Topics 1-4 hours. Topics vary from year to year and are designed especially for, but not limited to, non-science majors. Typical topics might be light and color, music and sound; or laboratory topics to include aspects of physics of interest to artists, musicians, photographers, environmentalists, etc. (Sufficient demand)

PHYS 401 - Quantum Mechanics I 4 hours. Schrodinger's theory of quantum mechanics with applications to atomic systems. Includes origin of the quantum theory, wave-particle duality, approximation methods, and time-dependent problems. Prerequisite: PHYS 226. (Alternate years)

PHYS 402 - Quantum Mechanics II 4 hours. Continuation of Quantum Mechanics I. Focuses on the applications of quantum mechanics postulates to real systems. Time independent perturbation theory is developed as are nonperturbative techniques such as variational theory. These ideas are applied to real atoms, molecules, metals, etc. Time dependent perturbation is also constructed and applied to electrodynamics. Non relativistic quantum electrodynamics is then applied to realistic systems. Prerequisite: PHYS 401.

PHYS 421 - Statistical and Thermal Physics 4 hours. Statistical and Thermal Physics deals with the various aspects of macroscopic thermodynamics and describes these statistically in terms of the microstates of systems. Examples taken mainly from gaseous and solid systems. Prerequisite: PHYS 126, MATH 253. (Alternate years)

PHYS 423 - Advanced Mechanics 4 hours. This course makes more sophisticated use of the basic laws of mechanics and includes sections on rotating coordinate systems, orbits in inverse square law fields, the analysis of vibrating systems and waves, Lagrange's and Hamilton's equations, and an introduction to the topic of chaos. Prerequisites: MATH 271, PHYS 125 and PHYS 126. (Alternate years)

PHYS 424 - Advanced Electricity and Magnetism 4 hours. A study of electric and magnetic fields and their origins in free space as well as in materials. Includes an introduction to vector calculus, solutions to Laplace's equation, multipole expansions, and Maxwell's equations in differential and integral form. Prerequisites: PHYS 126, MATH 271. (Alternate years)

PHYS 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

Political Science

POLS 110 - American Politics 4 hours. An introductory survey of the American political system. Emphasis on the structures and processes of the political system with additional study of some of the problems faced by the system. (E)

POLS 120 - Great Issues in Politics 4 hours. What is politics? Why is politics important? This course explores various understandings of politics and their impact on differing views of citizenship and the possibilities of public life. Through readings of classic texts, students address questions about the obligations of citizenship, the role of the state, and the relationship between freedom and equality. (E)

POLS 200/300 - Special Topics 1-4 hours. Examines topics of special interest not normally covered in other political science courses. Examples are Biopolitics, Political Socialization. (Sufficient demand)

POLS 214 - Politics and Environment 2 or 4 hours. Examines America's recent quest for coherent environmental policy, with special emphasis upon the politics of air and water pollution control.

POLS 220 - Perspectives on Political Science 2 hours. Intended as a foundation course for further work in political science. Students examine frequently used approaches to the study of politics, consider the question of personal values in political science, and investigate attempts to study politics in a scientific way.

POLS 230 - Introduction to Data Analysis and Statistics 4 hours. An introduction to statistics and data analysis in social and political life, covering the nature of variables, descriptive statistics, probability, and inferential statistics. Students use computer software to further their understanding. (Cross-listed as SOCI 230) (III)

POLS 232 - Judicial Processes 2 hours. The theory and practice of judicatory systems with primary emphasis on Anglo-American judicial processes and problems.

POLS 236 - Media and Politics 4 hours. This course examines the relationship between mass media and politics. We will explore the ways in which mass communications media shape the politics of elections, daily governance, U.S. foreign policy, interest groups, social movements, and identity.

POLS 238 - Politics and the Internet 4 hours. This course examines the role of politics in the shaping of the internet and the role of the internet in the shaping of politics. We will study the influence and potential influence of the internet on elections, the legislative process, and interest groups. We will address questions regarding free speech, pornography, and hate speech as well as questions about privacy, security, and citizenship. Underlying all of our discussions will be a concern about democracy versus the centralization of power.

POLS 242 - Approaches to Law 4 hours. What is the law and why do we obey it? What authority stands behind law? How do our answers influence the way we make and interpret law? We examine how others have approached these kinds of questions with an eye toward better understanding our own legal system.

POLS 246 - Sex and the Body Politic 4 hours. This course examines how citizens' ideas about gender shape politics and how politics shapes the gender of citizens. Studying the politics of sex and gender provides interesting perspectives on issues and even challenges our very understanding of what politics is. (Cross-listed as WMST 246)

POLS 251 - European Politics 4 hours. From post-WWII attempts to prevent future conflicts has grown a unique political structure called the European Union. This course analyzes the political institutions and political culture of both the European Union and some important countries making up the EU.

POLS 253 - Dictatorship and Democracy 4 hours. This course comparatively examines four political movements (Liberalism, Communism, Fascism, and Islamic Fundamentalism) that have shaped the evolution of modern politics around the world, from authoritarian rule to representative democracy.

POLS 271 - World Politics 4 hours. A systematic examination of the political processes affecting world political developments. Specific attention focused on such factors as the formulation and application of foreign policy, the role of major powers in world politics, and the function of international law. (E) (GP)

POLS 273 - Terrorism and International Security 4 hours. This course will deepen students' understandings of 1) what terrorism is, 2) how terrorism has evolved over time, 3) the key factors generating contemporary terrorism, 4) how terrorism is inspired, financed and organized, and 5) counterterrorist strategies. (GP)

POLS 282 - Latin American Politics 2 or 4 hours. Contemporary politics of selected countries. Regional organizations and transnational enterprises; legacy of geography, history, and culture; religious and ethnic conflicts; parties, elections, and state institutions: revolutionary movements. (GP)

POLS 313 - State and Local Politics 4 hours. In the American governmental system, the intertwined destinies of states and their local governments are critical. This course studies the structure of decision-making at the state and local level, forces affecting decision, outcomes of decision, and the challenges governments face. (Alternate years)

POLS 316 - American Constitutional Law and Politics 4 hours. An examination of the development of the Supreme Court as a major political institution concentrating primarily on the Court's decisions and its internal politics. Prerequisite: POLS 110; junior or senior standing recommended.

POLS 318 - The Presidency 4 hours. After studying the evolution of presidential power, this course will examine the relationship of the presidency to other branches of government. Students will also learn how presidents work within and against political constraints in order to get policies enacted. Prerequisite: POLS 110.

POLS 331 - Parties and Elections 4 hours. Analysis encompasses theories of parties, party organization, party conduct of campaigns and elections, voting behavior, and party roles in government. Emphasis on the American system.

POLS 341 - Modern Political Theory 4 hours. A survey of the major political theorists from the Renaissance through the twentieth century, with primary emphasis on western thinkers. Particular attention given to theory as an individual and cultural phenomenon. (Cross-listed as PHIL 341)

POLS 346 - American Political Thought 4 hours. This course introduces students to political thought in the United States. It explores "liberal" ideals such as individualism, freedom, equality, citizenship, and democracy, as well as important alternatives to those ideas. It will also examine the ways in which race, ethnicity, and gender have shaped American political thought. Prerequisite: POLS 110.

POLS 347 - Contemporary America 4 hours. Through readings on political leadership, the media, Washington power politics, international relations, and Americans' historic attachments to individual rights and civic participation, this course examines the forces leading to contemporary political controversies. Students will explore the interrelationship between these controversies and Americans' changing views of citizenship and democracy. (Cross-listed as SOCI 347)

POLS 355 - Public Policy 4 hours. The policy process is the heart of politics: "Who gets What, When, How?" This course emphasizes the stages of the process and the types of policies that government considers. A case study of some policy area (elderly) is provided.

POLS 411 - Bureaucracy 4 hours. Analysis of the administrative policy processes at the national level. Internal interaction and budgetary processes as well as interchange with external governmental and political institutions. Prerequisite: POLS 110. (Alternate years)

POLS 417 - American Civil Liberties 2 hours. Analysis of such current legal and political issues as free speech, religion, poverty, privacy, obscenity, and racial and sexual discrimination with attention to both established and latent areas of concern. Focuses on Supreme Court activity. Other governmental action considered, along with the theoretical and social contexts of the problems examined. Prerequisite: junior or senior standing.

POLS 431 - Research Design and Strategies 4 hours. The major research designs and techniques used in collecting social science data. The class selects, designs, and executes a research project and prepares a joint presentation and defense of its findings. Prerequisites: SOCI 110 or ANTH 110, and senior standing or permission of instructor.

POLS 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/ classroom setting. Open to Political Science majors at the permission of instructor. Approved Plan of Study required.

POLS 470 - Field Work 2-4 hours. Supervised on-site field work on an approved topic.

POLS 475 - Data Analysis Lab 4 hours. This course provides students with advanced data analysis experience. Students learn multivariate statistical techniques; how to use associated mainframe software (e.g., SPSSX) to analyze large data bases; and how to write research reports based upon their analysis. Prerequisite: SOCI/POLS 230 or equivalent or permission of instructor. (Cross-listed as SOCI 475)

Psychology

PSYC 101 - Introduction to Psychology 4 hours. An introduction to the scientific study of behavior and mental processes. Topics typically include sensation and perception, learning and memory, consciousness, cognition and mental abilities, motivation and emotion, human development, personality, gender and sexuality, psychological disorders and therapies, and social influences on behavior. (E)

PSYC 118 - Introduction to Adult Development and Aging 4 hours. (see GERO 118) (E)

PSYC 210 - Communication and Counseling Skills 2 hours. Focused on working with adults, this course teaches interpersonal communication and counseling skills and theory to students preparing for careers in the helping professions. The course promotes self-understanding through experiential learning and role playing. Videotaping and microlabs may be employed. Prerequisite: PSYC 101 or GERO 118.

PSYC 220 - Psychological Methods and Statistics 4 hours. An introduction to the use of data and theory in psychology. Topics include: philosophy of the scientific method, experiments and other research strategies, descriptive and inferential statistics and hypothesis testing. The course emphasizes statistical reasoning and its relationship to the scientific method. Required for majors and minors. Prerequisite: PSYC 101. (III)

PSYC 230 - Psychological Research and Design I 2 hours. Students learn how to apply the scientific method to study human behavior. The steps from reviewing the literature and generating a hypothesis to developing measurement procedures will be practiced. The final project will be an APA-style research proposal. Prerequisite: PSYC 220.

PSYC 251 - Principles of Learning and Behavior Modification 4 hours. The principles and techniques of behavioral assessment and management are examined, including how to strengthen adaptive behavior through shaping, reinforcement schedules, and relapse prevention and how to minimize or eliminate maladaptive behavior through behavior modification methods such as stimulus control and extinction procedures. Prerequisite: PSYC 101.

PSYC 261 - Cognitive Development 4 hours. The course examines the theories and research in cognitive development from infancy through adolescence. Piagetian, Vygotskian, and Information-Processing Approaches are explored while examining the development of processes including attention, perception, memory, language, and reasoning. Prerequisite: PSYC 101.

PSYC 262 - Social Development 4 hours. This course examines theories and research in child and adolescent social development. Relations with parents and peers, prosocial behavior, aggression, sex-role development, and social-cognitive development are studied. Prerequisite: PSYC 101.

PSYC 282 - Social Psychology 4 hours. A study of the influence that people have on each other's behavior, perception, motivation, feelings and cognition. Topics include the self and identity, social perception and cognition, attribution, race and gender, prejudice and discrimination, conformity and obedience, groups and leadership, attitudes and persuasion, aggression and violence, helping and altruism, attraction and love, conflict and peacemaking. Prerequisite: PSYC 101.

PSYC 300 - Special Topics 1-4 hours. A series of directed readings, changing from semester to semester, which affords the student an opportunity to pursue topics of special interest in greater depth by intensive reading, discussion and seminar feedback. Prerequisites: PSYC 101 and permission of instructor.

PSYC 302 - Psychological Measurement 4 hours. An introduction to psychological assessment through a survey of the principles of test design, scoring, and interpretation for tests of achievement, intelligence, personality, career interests, and attitudes. Specific concepts include: item analysis and norms, reliability and validity, ethical and legal standards. Prerequisite: PSYC 101 and PSYC 220.

PSYC 309 - Philosophical Psychology 4 hours. (see PHIL 309)

PSYC 311 - Sensation and Perception 4 hours. A study of the physiological and psychological processes involved in the immediate experience of sensory stimulation. Topics include sensory systems and coding mechanisms, psychophysical methods, signal detection, illusions, and complex perceptual processes. Prerequisite: PSYC 101.

PSYC 320 - Parenting Seminar 2 hours. This course provides students with an opportunity to learn about effective parenting through reading of literature and group discussion. The course explores a wide variety of issues, concerns, and problems that parents often face as well as the joy and gratification that effective parenting brings. Prerequisite: PSYC 101.

PSYC 322 - Health Psychology 2-4 hours. The critical link between health and behavior is the focus of this course. Students discuss and explore, in seminar format, health-related topics such as nutrition, addiction, exercise, life stress, health care delivery systems, alternative medicine, AIDS, health promotion behavior and personality and proneness to disease. Prerequisite: PSYC 101.

PSYC 330 - Neuropsychology 4 hours. A non-laboratory course dealing with the neurological correlates and determinants of behavior. Emphasis on basic neuroanatomy and neurophysiology underlying human behavior, i.e., the physical basis of movement sensation, perception, emotion, motivation, learning, memory and language.

PSYC 332 - Cognitive Processes 4 hours. An exploration of the psychological organization and functions of the mind. The point of view of people as active processors of information is adopted. Topics include attention, recognition, varieties of memory, psycholinguistics and consciousness. Emphasis is placed on the experimental method and its application to the study of cognitive experiences and activities. Prerequisite: PSYC 101 or permission.

PSYC 341 - Theories of Personality 4 hours. This course examines the philosophic, scientific, and applied aspects of personality theory and research. The major orientations toward investigating personality will be explored, e.g., psychodynamic, depth-psychological, trait-factor, humanistic, and cognitive-personality models. Emphasis is placed on developing a working knowledge of each theory and methods of conducting personality research. Prerequisite: PSYC 101.

PSYC 342 - Abnormal Psychology 4 hours. Examines the biological, psychological and societal perspectives on the taxonomy, etiology, and treatment of clinically significant psychopathology. Provides a basis for understanding the personal and social problems of such individuals. Prerequisite: PSYC 101. Recommended: PSYC 261, 262, 282 or 341.

PSYC 351 - Human Sexuality 4 hours. A discussion of sexual attitudes and behavior, gender roles, love and intimacy, contraception and abortion, pregnancy and childbirth, marriage and family life, variations in sexualities, STDs, and the many psychological and cultural factors that affect human sexual behavior.

PSYC 352 - Research Techniques 2-4 hours. This course involves the conduct of laboratory and/or field research and experiments to teach techniques and skills used to gather data in specific subfields of psychology, usually child development. The specific area to be covered may change from term to term (e.g., personality, social, learning, cognition). Prerequisite: PSYC 220 and relevant courses (such as PSYC 261 or 262) or permission of instructor.

PSYC 362 - Industrial/Organizational Psychology 4 hours. This course is designed to acquaint students with work psychologists perform in organizational settings. Topics may include methodology of industrial/organizational psychology, personnel selection, training and development, job satisfaction, leadership, work motivation, human performance and human engineering, performance appraisals, job stress and consumer behavior. Prerequisite: PSYC 101.

PSYC 371 - The Psychology of Death and Dying 4 hours. The study of death addresses questions rooted at the center of human experience. Included are historical and modern concepts, attitudes and practices toward the dying and the bereaved; psychological stages and experiences through which the dying may pass;

an investigation of suicide including prevention, intervention and postvention; the concept of death in health care, medical ethics and law. Prerequisite: PSYC 101.

PSYC 372 - Psychology of Women 4 hours. This course examines the psychological, biological, social, and life-span development differences and similarities of the genders. Topics include cognitive abilities and achievement, personality characteristics, work issues, violence prevention, love relationships and sexualities, reproductive concerns, and physical and mental health issues. Prerequisite: PSYC 101. (Cross-listed as WMST 372)

PSYC 411 - Psychological Research and Design II 4 hours. An advanced course in psychological research methods. Includes the logic of various research designs (variables, confounds) and their statistical analysis. The class designs and conducts several studies, gathering and interpreting data. Involves APA style report writing and the use of computers in research. Prerequisites: PSYC 220 and PSYC 230.

PSYC 429 - Cognition and Aging 2 hours. (see GERO 429)

PSYC 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

PSYC 471 - Child Psychopathology 3 hours. Through readings, presentations, and discussions, this course seeks to illuminate variation in child/adolescent behavior, emotion, and personality. Course material will consist of theory, research, and practice regarding "disturbed" and "disturbing" children and adolescents. Prerequisite: PSYC 261, 262 or 342.

PSYC 472 - Child Interventions 3 hours. This seminar introduces students to interventions for children and adolescents with disabilities and mental health disorders. Treatment strategies will be explored (such as behavior modification, play therapy, family therapy) along with treatment settings in which such therapies are delivered (schools, community mental health centers, institutions). Prerequisite: PSYC 261, 262, or 342.

PSYC 485 - Practicum 2-4 hours. A supervised field experience planned to develop skills in designing interventions within educational, vocational, social services or mental health settings. In addition to field placements, students may meet in weekly seminars to discuss current literature. Prerequisites: PSYC 101 and permission of instructor.

PSYC 491 - Clinical Procedures 4 hours. Focuses on the development and application of general clinical skills. Each student has the opportunity to demonstrate these skills through supervised interactions with a volunteer counselee. Prerequisites: PSYC 210, 341 or 342; and permission of Division Selection Committee.

PSYC 492 - Clinical Practicum 4 hours. This course provides advanced clinical/counseling-track psychology students with practical experience in a human service setting. Since each practicum site offers a somewhat different experience, attempts are made to place students in a setting that matches their interests. Supervision is provided for both on-site and in-class work. Prerequisites: PSYC 491 and permission of Division Selection Committee.

PSYC 497 - Senior Seminar 2 hours. This course provides students with an opportunity to explore contributions of important research and theorists through reading of literature, group discussions, and paper presentations. It will also focus on a variety of contemporary topics and issues. Required for majors. Prerequisite: Completion of 20 hours of psychology coursework.

Religious Studies

RLGS 105 - Introduction to World Religions 4 hours. An introduction to a limited number of religious traditions, e.g., Shamanism (emphasizing the American Indian), Hinduism, Buddhism, Judaism, Christianity, and Islam. Attention given to the nature of religion and its meaning for individuals and cultures. (B) (GP)

RLGS 240 - Religion in America 4 hours. An examination of the impact of religion in shaping American culture. Major thinkers such as Edwards, James, Emerson and Niebuhr, historical movements such as revivalism and social gospel, and distinctive themes such as religious pluralism, civil religion and ethnic awareness. (Sufficient demand) (B)

RLGS 251 - Who Wrote the Bible? 4 hours. The course will examine the ways that social, political, cultural and historical situations affected the formation of the Bible. It will also consider various ways that religious ideas are conveyed through stories, histories, mythologies, and poetry. (B)

RLGS 252 - Judaism and Islam 4 hours. Introductory comparative course highlighting similarities and differences of the two religious traditions. Topics include sources and meanings of revelation, legal theories and ritual structures that uphold community, religious experience through worship and mysticism, and philosophical interpretations. (B) (GP)(Sufficient demand)

RLGS 254 - Birth of the Christian Tradition 4 hours. An exploration of the early Christians' religious experience both by studying their writings (e.g., letters, gospels, apocalyptic discourses, theological treatises, liturgical manuals - some in the New Testament) and by examining the Jewish, Greek and Roman cultures from which Christianity emerged. (Sufficient demand) (B)

RLGS 257 - Greek and Roman Myths 4 hours. This course surveys the mythical world of antiquity and pays attention to classical religion, history, art, and literature in order to understand the nature of myths and how they develop and change. Contemporary methods of interpretation are also considered. (Sufficient demand) (B)

RLGS 265 - Asian Religions: India, China, Japan 4 hours. Introductory survey of practices and beliefs in selected Asian religious traditions in historical and contemporary periods. Will include Hinduism, Buddhism, Confucianism, Taoism, Shinto and selected other traditions, including new religious movements. (B) (GP)

RLGS 300 - Topics in Religious Studies 1-4 hours. An examination of issues in religious studies. Topics vary each time the course is offered. (Sufficient demand)

RLGS 305 - Comparative Mythology 4 hours. How can myths be true? Why do the same themes crop up in different cultures? How have they been studied? This course addresses these and other issues by investigating myths from different cultures and applying a variety of interpretive techniques. (Sufficient demand)

RLGS 307 - Myth, Ritual, and the Creative Process 4 hours. A cross-cultural explanation of how people establish their world views by narrating stories and by acting out their deepest aspirations and beliefs. Special attention to how and why symbolic frameworks are transmuted from certain forms to others through creative imagination. Prerequisite: One course in Religious Studies or Philosophy, or permission of instructor. (Alternate years)

RLGS 308 - Artists, Shamans and Cosmology 4 hours. This seminar examines how western artists and traditional shamans become mediums in creating worlds of meaning. Discussions center on the cosmogonic process of creating meaning through dreams, images, myths, metaphors, ritual activity, symbolic gesture, and language. Prerequisite: One course in Religious Studies or Philosophy, or permission of instructor. (Alternate years)

RLGS 319 - Jesus: Sage, Savior, Superstar 4 hours. This course examines a variety of ways people have understood Jesus and his teachings. We study the four Biblical gospels, gospels that were excluded from the Bible, non-Christian perspectives on Jesus, and representations of him in art and popular culture. Prerequisite: sophomore or higher class standing or permission of instructor. Completion of at least one previous course in philosophy or religious studies is preferred.

RLGS 359 - History of Chinese Thought 4 hours. Focusing on the relationship between religion and philosophy, this course develops and understanding of the distinctive character of Chinese culture by surveying the development of religion and philosophy from antiquity to the medieval period and challenges of the twentieth century. (Cross-listed as HIST 359, PHIL 359)

RLGS 369 - Buddhism 4 hours. Traces the historical development of Buddhist thought, rituals and meditation from the founding by Gotama in India to the present-day divisions between the Theravada and the Mahayana. Religious expressions through myth, philosophy, and art are highlighted. (Sufficient demand)

RLGS 374 - Myth, Yoga, and Philosophy of India 4 hours. Examines myths and rituals in the Hindu religious tradition from the Vedic period to present day, the theory and technique of liberation through various forms of Yoga and the philosophies of ancient India centered in the Upanishads and Bhagavadgita. (GP) (Sufficient demand)

RLGS 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

Science

SCIE 110 - Weather Elements 2 hours. Analyzes the fundamental physical processes of the atmosphere and their relationships to the daily weather pattern and weather forecasting in the United States. May be taken for science credit. (Sufficient demand) (F2)

SCIE 111 - Science in Science Fiction 2 or 4 hours. Science fiction is intimately connected with science. In the sub-genre of hard science fiction, the story is founded on sound scientific or technological extrapolations and explores how individuals and society react to the changes. This course looks at the science used in a variety of short stories, novels and films.

Topics can include planetary science, genetic engineering, artificial intelligence, celestial mechanics, black holes, chemistry, physics, and ecology. (F2)

SCIE 115 - Life in the Universe 4 hours. A study of the search for extra-terrestrial intelligence including a brief introduction to astronomy, an examination of the necessary conditions for life (as we know it), and the possibility of space travel and communication. (F2)

SCIE 117 - Integrated Science 4 hours. Content-based survey of the physical sciences, emphasizing the chemical and physical laws that describe our surroundings and the interactions of inanimate environmental components. Includes modern methods of acquiring, analyzing, modeling/interpreting, and communicating data from the physical sciences. Illustrates chemistry and physics concepts with real-world examples and links them with earth science. Manipulatives, models, and experiments for understanding physical properties and chemical structure are featured in the associated hands-on laboratory. Course addresses the NY State Learning Standards for Chemistry, Physics, and Earth Science. (F1)

SCIE 127 - Doing Science 4 hours. In this course, students learn science by doing science, planning and executing their own experiments devised to answer questions they have about a central theme. This course is taught by faculty from different scientific or mathematics backgrounds who guide students in their investigations. Content will cover a broad range of scientific disciplines, emphasizing earth, environmental and life sciences. Fulfills the CLAS Quantitative Reasoning basic competency (III) and counts as a lab science in general education. (F1)

SCIE 200 - Special Topics in Science 1-4 hours. Topics vary from year to year.

SCIE 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

Sociology

SOCI 110 - Introduction to Sociology 4 hours. The foundation course in sociology, studying such concepts as social organization, culture, personality, and social processes such as interaction, socialization, social stratification, race and ethnic relations, and collective behavior. Designed primarily for freshmen. (E)

SOCI 200 - Special Topics 1-4 hours. An open course, varying in content from year to year, which allows for concentration on such specialized areas as Political Sociology, Demography, Criminology, Social Change, Stratification, and the like. Prerequisites: SOCI 110 or ANTH 110 or permission of instructor. (Sufficient demand)

SOCI 230 - Introduction to Data Analysis and Statistics 4 hours. (see POLS 230) (III)

SOCI 235 - Socialization 4 hours. An inquiry into the processes by which social actors learn the norms, behaviors, and patterns of attention appropriate to their positions in society. Topics discussed include: "nature versus nurture," theoretical approaches to socialization, social structure, and socialization in adult life. The relationship between socialization and other sociological concepts, such as gender, social class, and occupation are discussed. Prerequisite: SOCI 110 or ANTH 110. (Alternate years).

SOCI 236 - Cults, Sects and the Main Line 4 hours. A scientific approach to the universal phenomenon of religion in human society. How does one approach such a study? What is "religion?" What function does religion supply in the maintenance of society? Are there alternative belief systems equally functional? What kinds of people are drawn to various types of religious expression? What is the place of religion in the society of the future? Prerequisites: SOCI 110 or ANTH 110 and junior or senior standing, or permission of instructor. (Alternate years)

SOCI 242 - Social Problems 2-4 hours. Current social issues discussed and analyzed from a sociological perspective. Issues vary each term but may be drawn from the following: population and the environment; work and alienation; education; health; leisure, social welfare, and other areas. Prerequisite: SOCI 110 or ANTH 110. (Sufficient demand)

SOCI 253 - Social Welfare Institutions 2 or 4 hours. Examines social welfare institutions in the context of change brought about by industrialization and urbanization. Focus on types of welfare, welfare policy and the structure of services. (Cross-listed as WMST 253) (Sufficient demand)

SOCI 343 - Race and Ethnicity 4 hours. A discussion of theory and research concerning racial and ethnic relations in the United States and in various parts of the world. (GP)

SOCI 344 - Deviance and Society 4 hours. Deviance presented as an aspect of the normal functioning of a society, rather than as either a symptom of social pathology or disorganization or as the result of biologically or psychologically problematic individuals. Prerequisite: SOCI 110 or ANTH 110 or permission of instructor.

SOCI 345 - Crime and Delinquency 4 hours. The concept of deviance in particular reference to the sociological understanding and analysis of crime and delinquency. Prerequisite: SOCI 110 or ANTH 110 or permission of instructor.

SOCI 346 - Sociology of Sex and Gender 4 hours. Examines the concepts of sex and gender as they are defined in sociological literature, focusing on how social contexts (i.e., education, employment, family, sexuality and reproduction, etc.) construct gender which, in turn, shapes future opportunities for individuals in society. Prerequisite: SOCI 110 or ANTH 110. (Cross-listed as WMST 346)

SOCI 347 - Contemporary America 4 hours. (see POLS 347)

SOCI 348 - Sociology of Families 4 hours. An investigation of the relationship between the family and other social institutions, particularly in regard to the family functions of population maintenance, socialization and social placement. Prerequisite: SOCI 110 or ANTH 110. (Cross-listed as WMST 348)

SOCI 349 - Medical Sociology 4 hours. An examination of the social definitions of health and illness, its social distribution and relationship to the organization of health delivery systems. Prerequisite: SOCI 110 or ANTH 110. (Sufficient demand)

SOCI 400 - Special Topics 1-4 hours. An open course, varying in content from year to year, which allows for concentration on such specialized areas as Political Sociology, Demography, Criminology, Social Change, Stratification, and the like. Prerequisites: SOCI 110 or ANTH 110 and junior or senior standing or permission of instructor. (Sufficient demand)

SOCI 420 - Social Theory: A Survey 4 hours. An examination of contemporary theoretical schools, e.g. symbolic interactionism, structural functionalism. exchange and conflict, and ethnomethodology. Special attention devoted to the precursors and contemporary representatives of the respective schools. Prerequisite: SOCI 110 or ANTH 110 or permission of instructor.

SOCI 431 - Research Design and Strategies 4 hours. The major research designs and techniques used in collecting social science data. The class selects, designs, and executes a research project and prepares a joint presentation and defense of its findings. Prerequisites: SOCI 110 or ANTH 110, and senior standing or permission of instructor.

SOCI 450 - Independent Study 1-4 hours. Work on some topic not covered in any established course chosen by the student in consultation with the instructor. Work under this title may be carried out alone, in cooperation with other departments, or in an honors colloquium where a common problem is chosen. Approved Plan of Study and permission of departmental staff required.

SOCI 470 - Application of Sociology Field Work 2-4 hours. Field work associated with social services, corrections, health care, or educational agencies. Weekly class-workshop sessions and individual field work. Focus on the student's relationship with colleagues, professionals, and the public in various accredited institutional settings. Prerequisite: junior or senior standing and permission of instructor. (Sufficient demand)

SOCI 475 - Data Analysis Lab 4 hours (see POLS 475)

SOCI 495 - Global Issues Seminar 4 hours. (see GLBS 495). (GP)

Spanish

SPAN 101 - Spanish I 4 hours. Introduction to the language and culture of the Spanish-speaking world: speaking, reading, understanding and writing. Practice in language lab. Emphasis on communicative skills. Assumes no prior knowledge of the language. (II)

SPAN 102 - Spanish II 4 hours. Continuation and further development of the skills learned in SPAN 101. Prerequisite: SPAN 101, 41-60% on Spanish Language Placement Exam, or permission of instructor. (II)

SPAN 200/300 - Special Topics 1-4 hours. Subject matter not covered in other courses. Topics vary from one semester to another.

SPAN 201 - Spanish III 4 hours. Continuation and further development of the skills learned in SPAN 102. Prerequisite: SPAN 102, 61% or higher on Spanish Language Placement Exam, or permission of instructor. (II)

SPAN 202 - Spanish IV 4 hours. Development of proficiency through use of written materials in Spanish. Prerequisite: SPAN 201 or permission of instructor. (II)

SPAN 301 - Advanced Conversation and Composition 4 hours. Focuses on open-ended, dramatized versions of life-like scenarios which elicit resolutions from students. Emphasis on increasing fluency and amplifying cultural competency. Students approach scenarios individually and collectively. Readings, discussions and assignments in Spanish. Prerequisite: SPAN 202 or permission of instructor.

SPAN 311 - Peninsular Culture and Literature I: Medieval - Eighteenth Century 4 hours. An introduction to canonical cultural works of Spain from the Middle Ages through the eighteenth century. Cultural discourse placed in context with socio-historical periods. Essays, literature, videos and/or films. Predominantly in Spanish.(Alternate years)

SPAN 312 - Peninsular Culture and Literature II: 19th - 20th Century 4 hours. An introduction to canonical cultural works of nineteenth-and twentieth-century Spain. Cultural discourse placed in context with socio-historical periods. Can be taken independently or as a continuation of SPAN 311. Course components predominantly in Spanish. (GP) (Alternate years)

SPAN 315 - Latin American Culture and Literature I 4 hours. An introduction to canonical cultural works of pre-Columbian through eighteenth-century Spanish America. Cultural discourse placed in context with socio-historical periods. Essays, literature, videos and/or films. Predominantly in Spanish. (Alternate years)

SPAN 316 - Latin American Culture and Literature II 4 hours. An introduction to canonical cultural works of nineteenth- and twentieth-century Latin American. Cultural discourse placed in context with socio-historical period. Can be taken independently or as a continuation of SPAN 315. Course components predominantly in Spanish. (GP) (Alternate years)

SPAN 360 - Literary Theory Seminar 4 hours. This course is intended to introduce those students with a major or a minor in a foreign literature and language to Literary Theory and Criticism. Students will be using different types of theory to analyze texts in English and in their target language. This course will be required of all foreign language and literature majors and is recommended for those students with a minor in a foreign language. Prerequisite: SPAN 202 or permission of instructor. Students may not retake this course for credit as FREN or GRMN 360.

SPAN 400 - Topics in Hispanic Literature 1-4 hours. A study of the literary manifestations of socio-cultural areas such as religion, honor, love, politics, and individuality which are of concern to Hispanics. Taught in Spanish. (Sufficient demand.)

SPAN 402 - Readings in Modern Latin American Literature 4 hours. Latin American literature from Modernism to the present. Readings are selected from the works of such authors as Dario, Neruda, Mistral, Borges, Garcia Marques, Cortzar, Donoso, and Vargas Llosa. Gaucho, Indianist and Revolutionary novels are also considered. Taught in Spanish. (GP) (Sufficient demand)

SPAN 404 - Latinos/as in the United States 4 hours. An introduction to important writings, art and/or films about the experiences of Latino communities in the United States. Addresses, for example: socio-political; gender; class; language; and generational-change issues reflected in various discourses. Given in Spanish and English. Prerequisite: SPAN 301 or permission of instructor. (GP)

SPAN 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Independent study is required of Spanish majors. Approved Plan of Study required.

SPAN 485 - Internship in Spanish 1-4 hours. An off-campus project in consultation with faculty in the Division of Modern Languages. Students gain experience in a variety of careers involving Spanish and related fields. The internship must be conducted in Spanish. Requirements for this project include a journal, job evaluations, and a final report. May be taken during the summer or semester abroad. SPAN 202 or equivalent proficiency recommended. (GP)

Theatre

THEA 110 - Introduction to Theatre 4 hours. A study of theatre as a creative process and cultural phenomenon, including text and performance analysis, the examination of dramatic literature, and opportunities to experience and explore the work of the actor, the playwright, the director, the designer, and the producer. Scripts and productions which are the sources for discussions and assignments are drawn from a full range of cultures and time periods. (C)

THEA 120 - Technical Theatre 4 hours. A lecture/lab course in stage technology covering set construction, lighting, sound and scenic painting. Through a combination of lectures and hands-on practical experience, this course covers the art and design areas of set construction and provides a basic understanding of common stagecraft techniques. Lab hours required. (C)

THEA 200/300/400 - Special Topics 1-4 hours. Includes non-regularly scheduled course offerings in related areas of study. Examples include Musical Theatre, Theatre and Social Change, Ritual and Theatre, Performance Theory, Ethnic Theatre.

THEA 205 - The Play's the Thing! - Playwriting 4 hours. (see ENGL 205) (C)

THEA 210 - The Performing Arts: A Global Perspective 4 hours. Introduces the student to performing arts in society at large and a broad-ranging overview of how this role is fulfilled in a variety of cultures. It begins with a foundational exploration of the roots of theatrical, musical, and movement forms of expression in early tribal and American indigenous societies, followed by contrasting these forms to more familiar contemporary Western forms of expression. Perspectives are then compared and contrasted to selective performance traditions of Central/South America, Africa, India, Japan, Indonesia, China and others. (C) (GP)

THEA 211 - Women in Theatre 3 hours. A survey course tracing the role(s) of women in theatre - audience, acting, directing, writing, designing, managing - from the ancient Greeks to contemporary times in a range of cultures. Representative plays, essays, and production artifacts are studied to discover the changing roles of women. (Cross-listed as WMST 211) (Alternate years)

THEA 212 - From Page to Stage: Script Analysis 4 hours. Play-scripts are the primary source materials for theatrical performances. This foundational course focuses on analysis of this material; examining play structure, genre, theme; style, character, language and Imagery to inform the creative and research processes of theatrical practitioners and scholars. (C)

THEA 220 - Principles of Theatrical and Performance Design 4 hours. A beginning design course introducing students to common principles of theatrical and performance design: scene, lighting, costume, sound, makeup, and props. Script analysis, research methods, the "isms"-- realism, symbolism, absurdism, postmodernism -- design unity, color, light/shadow, line/weight, and shapes, will be covered. (C)

THEA 221 - Costume Construction 3 hours. A study of practical skills needed to transform a designer's rendering into 3-dimensional garments, including the nature and character of a range of fabrics, auxiliary materials, proper methods and the universal language of the textile world. Non-Theatre majors are welcome in this course. May be repeated for credit up to a total of 9.00 credit hours.

THEA 222 - Stage Makeup 2 hours. A basic course introducing students to the principles of designing and applying stage makeup. Projects and makeup crew assignments required. (C)

THEA 230 - Stage Management Fundamentals 2 hours. This course demonstrates the stage manager's role in theatrical productions and how essential it is for success. Topics include pre-production research, rehearsal protocol, production guidelines, stagecraft terminology, and developing a shared language with designers, directors, producers, cast, and crew.

THEA 240 - Acting I 4 hours. A beginning level course open to all students. Through progressive acting exercises, students are introduced to realism based theatrical performance, with emphases and exploration in vocal, physical and creativity development, text and character analysis. Plays from a full range of cultures are used for scene study assignments. (C)

THEA 242 - Performance Lab 3 hours. This course provides students with specialized focus on various aspects of theatrical performance in a laboratory, experimental workshop setting. This flexible course is intended to respond to unique interests and needs of students not otherwise emphasized in other courses. Lab may focus on improvisational techniques, audition techniques, monologue development, masking, puppetry, or styles of acting. (C)

THEA 270 - Play Production 1-4 hours. A lab course designed to give students practical production experience under faculty supervision in the areas of acting, technical theatre, designing, directing, and theatre management. May be repeated for credit to maximum of 4 hours. Prerequisite: Permission of instructor.

THEA 311 - Theatre History I 4 hours. An examination of theatre's place in many world cultures, primarily focusing on the development of Western Drama, from earliest times through 1650. Emphasis on performance content and style, theatre architecture, and management practices as a reflection of a given culture's social, religious and political structures, and aesthetic impulses. Prerequisite: THEA 110 or permission of instructor.

THEA 312 - Theatre History II 4 hours. An examination of theatre's place in many world cultures, primarily focusing on the development of Western Drama, from 1650 to the present. Emphasis on the performance content and style of dramatic literature, theatre architecture, and management practices as a reflection of a given culture's social, religious and political structures, and aesthetic impulses. Prerequisite: THEA 110 or permission of instructor.

THEA 320 - Scene Design 3 hours. A scenic design course, which builds on the principles of design taught in THEA 220. It further develops skills in research methodology, script analysis, sketching and painting techniques, model building, graphics, use of computer-aided design. Representative scripts will be studied. Prerequisite: THEA 220 or permission of instructor. (Alternate years)

Women's Studies

WMST 101 - Women in Society 4 hours. This interdisciplinary course is the foundation of Women's Studies. It examines the relationship of women worldwide to institutions and developments in the social, political, and economic spheres. Topics include biological issues, women and work, women as family members, media portrayal of women, and the origins and development of modern feminism.

WMST 200/300/400 - Special Topics 1-4 hours. Topics vary in content from year to year.

WMST 201 - Gender and Leadership 2 hours. In this course, members of the Women's Leadership Academy explore leadership theory and issues of gender and leadership. We examine questions such as: what qualities make an effective leader, why are so few women in leadership roles in certain professions, and what might feminist theory or chaos theory have to do with leadership? We approach these questions from both a personal and academic perspective. Participants assess their own leadership style and develop a personal philosophy of leadership. Class assignments include team-building activities and attendance at skill-building workshops. Prerequisite: Membership in the Women's Leadership Academy and instructor's permission.

WMST 204 - The Art of the Personal Essay 2 hours. (see ENGL 204)

WMST 211 - Women in Theatre 3 hours. (see THEA 211)

WMST 246 - Sex and the Body Politic 4 hours. (see POLS 246)

WMST 253 - Social Welfare Institutions 2 or 4 hours. (see SOCI 253)

WMST 254 - Women Writers 2 or 4 hours. (see ENGL 254)

WMST 256 - Multicultural American Literature 4 hours. (see ENGL 256) (A)

WMST 303 - Women, Knowledge and Reality 2-4 hours. (see PHIL 303)

WMST 306 - Gender and Communication 4 hours. (see COMM 306)

WMST 308 - Women Writers in the Middle Ages 4 hours. (see ENGL 308)

WMST 324 - Gay American History 4 hours. (see HIST 324)

WMST 346 - Sociology of Sex and Gender 4 hours. (see SOCI 346)

WMST 348 - Sociology of Families 4 hours. (see SOCI 348)

WMST 372 - Psychology of Women 4 hours. (see PSYC 372)

WMST 374 - American Women: History and Herstory 4 hours. (see HIST 374)

WMST 381 - International Women Writers 4 hours. (see ENGL 381)

WMST 382 - Women in Art 4 hours. (see ARTH 382)

WMST 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/ classroom setting. Approved Plan of Study required. The end of this course of study must include a public presentation, such as an oral thesis defense, a Women's Studies Roundtable, the Undergraduate Research Forum or an art exhibition/performance.

WMST 465 - Women, Minorities, and the Media 4 hours. (see COMM 465)

WMST 470 - Alphadelphian - Women's Studies Service 2 hours. Students explore the fundamentals of group identity and self-reporting within the context of community service and women's studies. Vehicles of learning include reflection and discussion and a service-learning component that requires publication of the Women's Studies newsletter. Students are responsible for each aspect of its content, layout, publication, and distribution. Prerequisite: permission of instructor.

WMST 475 - Women's Leadership Academy Practicum 2 hours. The practicum is a semester-long experience in active, authentic leadership around a service project conducted by members of the Women's Leadership Academy. Prerequisite: WMST 201.

WMST 485 - Internship 1-4 hours.

New York State College of Ceramics

School of Art and Design

ART 101 - Foundation I 8 hours. All BFA students are required to take Foundation. The year-long experience is an expansive course in studio practice and field experience focused on hands-on skill building using low-tech materials to cultivate an understanding of basic artistic principles, idea and concept evolution. Studio practice is augmented by personal research, studies in art history and contemporary art practice. BFA candidates are accepted into that program via portfolio review and academic qualifications.

ART 102 - Foundation II 8 hours. All BFA students are required to take Foundations II, a series of four, rotating, topic-specific studio workshops conducted by Art & Design faculty. These workshops address 2-D, 3-D, and 4-D Concepts. Topics vary from year to year. BFA candidates are accepted into that program via portfolio review and academic qualifications. Prerequisite: ART 101.

ART 111 - Introduction to Drawing 4 hours. Studio work in painting and drawing. A general course for beginners investigating the individual's ideas in various media. (C)

ART 121 - Beginning Sculpture 4 hours. A course focusing on idea development, using both traditional and nontraditional three-dimensional materials. (C)

ART 133 - Basic Black and White Photography 4 hours. Introduces students to the basic elements of photography and fundamental camera and darkroom techniques. Emphasis on black and white photography as an interpretive medium. (C)

ART 151 - Beginning Ceramics 4 hours. This course offers a preliminary approach to ceramics for students not enrolled in the BFA program. Students are introduced to fundamental methods of making, decorating, and firing. Additional work outside of class required. (C)

ART 161 - Introduction to Printmaking 4 hours. This course is designed to introduce students to the basic processes of printmaking. The students will explore numerous printmaking methods, from the traditional monotype, relief (wood block), to intaglio (dry point, etching). Students will also focus on developing personal images that relate to these techniques through intensive projects. (C)

ART 200 - Special Topics in Art 2-4 hours. Theory or other elective credit topics are explored Does not count toward BFA studio requirements.

ART 201 - Introduction to Handbuilding 4 hours. This course covers an extensive range of clay construction processes exclusive of the wheel. Fundamental problems in ceramics such as timing, gravity and weight are experienced in assignments that explore basic sculptural concepts. Students are introduced to historic and contemporary models to understand the possibilities offered by ceramic materials. Basic ceramic processes from glaze mixing to kiln firing are experienced within the context of experimental materials exploration.

ART 203 - Introduction to Wheel 4 hours. In this course, the potter's wheel is used as the forming process for making vessels expressive of the visual, tactile, and intellectual possibilities available through the medium. Provided is a direct experience with process and materials that teach necessary skills and techniques to enable students to correlate the hand and eye with the mind. The objective of the course is to help students develop creative ideas and concepts into works of art. Historical references are also explored.(Fall and Spring)

ART 212 - Introduction to Design Studio: Type and Image 4 hours. This core design studio course introduces students to graphic design through hands-on and process-oriented studio practice. A series of projects and exercises explore typography image-making. Emphasis is on visual literacy, critical thinking, craft, and empathy for audience experience. Problem solving embraces a wide variety of tools and materials. Studio practice includes digital equipment and design-related software such as InDesign, Photoshop, and Illustrator.

ART 218 - Introduction to Photography 4 hours. In this course, students will learn basic photographic skills including camera function, film exposure, film development, and essential black and white darkroom techniques. Through class discussions, book and slide presentations, photographic techniques and ideas. In frequent class critiques, students are encouraged to participate in a dialogue that will help them to develop the vocabulary and visualization skill necessary for critical evaluation of photographic work. (Fall and Spring)

ART 225 - Introduction to Print Media 4 hours. This course is focused on image making and image processing in relation to experiencing a broad range of printmaking processes and forms. It provides an introduction to the tools, technologies, and concepts necessary to develop the skills to make images within a contemporary print framework. Practices including woodcut, etching, lithography, monoprints, and new digital inkjet print technologies will be investigated. Printed images will evolve by working with a combination of hand and digital processes, with ink and with computer software, thus allowing the print to be understood as both physical and electronic process. Ideas inherent to the process of printmaking such as reproduction, translation, synthesis, remixing, proofing, recombination, and collage form the basis for discussion and inquiry. (Fall and Spring)

ART 232 - Introduction to Video, Sound, Interactive 4 hours. This core studio course introduces creative explorations of time-based media. Processes include video and audio recording, video and audio synthesis, digital editing software and concepts, video/sonic/interactive environments, animation (2d, immersive 3d), website production and social media.

ART 246 - Introduction to Painting 4 hours. In this course students will be introduced to painting within a structure that allows for the concurrent development of their technical and conceptual skills. Through a series of projects designed to explore the richness of painting in oil and/or water media, student will work towards proficiency with paint and gain confidence in the production and realization of ideas. Work will be done from observation, from the imagination, and from a variety of viewpoint and techniques. Discussions, reading, field trips, and critiques will enhance student's knowledge of the critical dialogs surrounding painting, and will expand the notion of what painting can be.

ART 255 - Introduction to Sculpture 4 hours. An introduction to the possibilities associated with contemporary sculptural practice, with an emphasis on the development of ideas and conceptual reasoning, and the safe usage of materials and processes. A wide range of techniques will be covered, including structure and fabrication, mold making and casting, and the consideration of space, site, interaction, and context. May not be repeated for credit. (Fall and Spring)

ART 261 - Introduction to Glass Blowing 4 hours. This class offers an introductory experimental approach to glass blowing. Students will learn the fundamental skills of gathering, centering, and shaping hot glass as well as cold working processes, sawing, grinding, drilling and polishing. Class instruction will concentrate on the physical properties of this unique medium: fluidity, transparency, light, optics, refraction, strength, and fragility. Discussions, field trips, slide presentations, critiques and demonstrations are at the core of developing a vocabulary with this malleable material.

ART 262 - Introduction to Glass 4 hours. This course offers a survey of glass working techniques with an emphasis on conceptual development and material manipulation. Technical demonstrations in glass blowing, hot glass casting, kiln forming, and cold manipulation will be combined with conceptually based projects to create contemporary sculpture.

ART 264 - Introduction to Glass Casting 4 hours. This course will prepare the savvy student with all the skills they will need to express themselves in cast glass. That's right pouring the 2000 degree hot glass into molds made of loose sand, rigid sand, plaster, silica and zircar. Positive images will be realized in clay, wax and found objects. Intensive instruction in modeling and mold making will facilitate artistic expression.

ART 265 - Summer Glass I 4 hours. This is an intensive, condensed course in glassblowing. Emphasis is on personal expression and skill development. Demonstrations, slides, and lectures center on traditional and non-traditional glass working techniques for the artist. Open to all levels. (Offered only in Summer.)

ART 266 - Summer Glass II 4 hours. This class incorporates various ways to cast glass using methodologies tailored to the beginning and intermediate student. Using hot casting, kiln forming, ZirCar ceramic shell and pate de verre, the student is exposed to a varied breadth of techniques within this intensive, condensed course. (Offered only in Summer.)

ART 282 - Figure Drawing 4 hours. A study of the expressive possibilities of the human form through drawing. Students will explore the figure in many ways with a variety of drawing media. From anatomical study and gesture to portraiture and narrative, this course will investigate the powerful history of figurative art and its potential for individual expression. Fundamental drawing and visual language skills are stressed. This course fulfills the drawing requirement. Prerequisite: Completion of an Art Foundation Program or permission of instructor.

ART 283 - Drawing: Observation to Abstraction 4 hours. An investigation of the ways in which perceptual study can lead to pure abstraction. Through observational drawing and formal analysis, students will discover the abstract principles that exist in all visual imagery. Assignments cover a broad range of drawing techniques and concepts including biomorphic, geometric, and conceptual abstraction. The potential for abstraction to communicate ideas will be explored.

Fundamental drawing and visual language skills are stressed. This course fulfills the drawing requirement. Prerequisite: Completion of an Art Foundation Program or permission of instructor.

ART 284 - Drawing: Analyzing Nature 4 hours. This course covers both technical and conceptual aspects of drawing through the investigation and analysis of natural forms. Subjects range from found objects in nature to microscopic materials, the landscape, and the human body. Emphasis is placed on integrating technical mastery of the visual elements of drawing with expressive content, while working with a wide variety of materials. Fundamental drawing and visual language skills are stressed. This course fulfills the drawing requirement. Prerequisite: Completion of an Art Foundation Program or permission of instructor.

ART 285 - Digital Drawing 4 hours. This course promotes an approach to drawing using digital formats that push the concept of computer beyond its status of "tool". We approach the computer as a creative partner seeking answers to the questions most appropriate for its use in drawing. Newly developed technique and vocabularies will be explored, including raster drawing, micro marking, pixel displacement, wave set processing, gradient manipulations, spectral graphics, autopoiesis, non-destructive editing, data base collage, aleatoric composition, tweening animation, video still frame manipulation, and serialism. Traditional drawing tools are used alongside experimental approaches. Prerequisite: Art Foundation Program (ART 101/102)

ART 288 - Visual Communications I 4 hours. This Sophomore-level Visual Communications course introduces College of Business Marketing majors to the history, theory, and visual language of design, including its applied roles and responsibilities within society. This course exposes students to the value and function of design, which builds from the synthesis of a rational and intuitive process that communicates ideas, emotion, experience, and a strategic message to an intended audience. Students will explore some of the fundamentals of typography, visual perception, visual language, and sensitivity to content, form and function, as well as the relationship of client to designer within the marketing process. Conceptual and applied problem-solving projects will develop an awareness and understanding of this communications relationship while incorporating the use of current design-related software and hardware. Not open to BFA students.

ART 300 - Special Topics in Art 2-4 hours. Topics and issues not covered in other junior studio courses are explored. Counts toward BFA studio requirements in Fall and Spring Semesters.

ART 301 - Ceramic Sculpture I 4 hours. This course emphasizes the rigorous development of conceptual skills with the goal of developing an individual approach to a full integration of ideas, material and process. Students are encouraged to experiment with different strategies, including installation work, mixed-media projects, and a variety of traditional ceramic techniques. Construction and firing techniques are explored as well. Prerequisite: ART 201 or 202. (Fall and Spring)

ART 302 - Ceramic Sculpture II 4 hours. Continuation of ART 301. Prerequisite: ART 201 or 202.

ART 303 - Ceramic Tile 4 hours. Ceramic tile is a potent form of artistic inquiry that offers students an alternative approach to clay not covered in traditional pottery or sculpture courses. The course challenges assumptions about tile, presenting ideas of space, shape modulation, movement, repetition, density, image, color and texture.

Students will address problems involved in planning, fabricating, and installing large projects. Prerequisite: ART 201 or 202. (Fall or Spring)

ART 304 - Ceramic Color and Surface 4 hours. This course focuses on the possibilities that ceramic materials offer within a studio-based class. The experimental use of materials as well as traditional techniques are explored to develop a personal approach to glaze and surface. Projects can include functional or sculptural work. (Fall or Spring)

ART 305 - Ceramic Pottery I 4 hours. Through an exploration of pottery form this course addresses artistic inquiry, studio practice, and the genre of functional ceramics. Issues relative to ceramic history, contemporary material culture, and craft theory are part of the dialogue. Primarily wheel based, these classes may also include casting and handbuilding systems. Prerequisite: ART 203. (Fall and Spring)

ART 306 - Ceramic Pottery II 4 hours. Continuation of Ceramic Pottery I. Prerequisite: ART 203; ART 305 recommended. (Spring)

ART 307 - Ceramic Systems 4 hours. This course will use mold forming processes as the primary system to develop work in ceramics. Sculpture or vessel making may be the focus dependent upon instructional point of view.

ART 308 - Alfred Summer Ceramics: Sculpture Workshop 4 hours. Open to students with prior experience in ceramic sculpture who wish to pursue individually directed projects in consultation with Alfred University faculty and visiting artists. Participants will work alongside the artists-in-residence in an open studio environment. Demonstrations, lectures, and technical support are provided by Alfred MFA students. Runs concurrently with ART 310 - Alfred Summer Ceramics. Lectures, demonstrations, and other activities are open to participants in both sessions. (Summer)

ART 310 - Alfred Summer Ceramics 4 hours. Open to students of all levels of expertise. The program, a four-week intensive summer session, offers a comprehensive ceramic experience ranging from ceramic art history, and glaze calculation, to an expansive experience working with clay fabrication techniques. Those who attend Alfred Summer School will be given personal studio space and an opportunity to deepen their understanding of clay and glaze by firing in gas, electric, wood, raku and soda kilns. Participants work alongside artists-in-residence in an open studio environment where students can pursue self-directed projects. Technical support provided by Alfred MFA students in kiln firing, moldmaking and casting; slide lectures and discussion by faculty and guest artists will regularly punctuate the studio experience. (Summer)

ART 311 - Design Studio: Graphic Form 4 hours. This course focuses primarily on image-making as it relates to graphic design. We study how form conveys meaning, the changing role of style in design, and how type and image work together. Prerequisite: ART 211 or permission of instructor.

ART 312 - Design Studio: Typography 4 hours. This course focuses on type as image, type as information, and the interaction of type and image. We explore letterforms and writing systems propelled by the human need to represent things, to represent ideas, and to express ourselves. Projects include a variety of traditional and digital media. Students work with design-related software including InDesign, Illustrator, Photoshop, Dreamweaver, and FontLab. Prerequisite: ART 211 or permission of instructor.

ART 314 - Junior Design Studio 4 hours. Designers command visual language to inform, identify, educate, entertain, and inspire. Junior Design Studio explores a variety of complex communication problems for interpretation and subsequent visual representation. Students advance their knowledge of typography, grid structure, visual perception, hierarchy of information, and sensitivity to content, form, and function. Content for projects simulates the relationship between designers, clients and the world in which we live. Students develop research methods, technical skills, and presentation skills. Work is produced in print and web media, considering 2- and 3-dimensional form as well as the element of time. Design solutions incorporate the use of current design-related software and hardware while embracing the processes and tools used in other areas of communication such as video, sonic and interactive media. Prerequisite: ART 211 or 212. Two prior courses in Design, Video/Sonic, or Print Media Studio are recommended. May be taken up to four times for credit. (Fall and Spring)

ART 315 - Branding and Corporate Identity 4 hours. Brand is the proprietary visual and verbal, emotional, rational, and cultural image that is associated with a service, company, or a product. Branding and Corporate Identity introduces students to the history, methodology, and application of brand strategy, visual and verbal brand development, and the role of design in creating brand essence, distinction, and identity. This course explores the components of successful, integrated brands through conceptual and applied projects which build upon an awareness of the fundamentals of typography, visual perception, sensitivity to form, structure, and hierarchy of information. Work produced includes the application of brand within digital, print media, video, sonic, and interactive media, as applied to both two and three dimensional form. Prerequisite: at least one Sophomore Design, Video/Sonic, or Print Media Studio or permission of instructor. (Fall and/or Spring)

ART 318 - Alternative Process 4 hours. This course is an introduction to alternative methods of black & white printing. Students learn the basics of negative enlargement, including an introduction to digital imaging and manipulation as well as theories of negative scales. The course also covers paper, sensitization and the different chemistry involved in each of the processes. Printing methods include cyanotype, Van Dyke brown, kallitype, gum bichromate, platinum/palladium and printing out paper. Prerequisite: ART 218. (Fall)

ART 319 - Color Photography 4 hours. Students learn C41 film processing and RA4 chromogenic print processing using a 30" x 40" color processor with an emphasis on mastering color correction in shooting and printing situations, including daylight, tungsten, flash and fluorescent light sources. Students are encouraged to use color experimentally, such as night photography, painting with light, manipulating development, large format printing and durations printing. Prerequisite: ART 218. (Fall)

ART 320 - Advanced Black and White 2 or 4 hours. This course is designed to give students the opportunity to test photographic materials and equipment leading to the mastery of essential photographic skills. Students begin testing their individual camera, film, and paper preferences to establish a personalized ASA, film development time and print development time. This leads into a modified zone system and densitometry. Students experiment with a variety of films as well as different papers, paper developers, and chemical additives. Prerequisite: ART 218. (Spring)

ART 321 - View Camera 4 hours. This course is an introduction to the view camera, large format photographic imaging. Each student in the class will be issued a 4"x5" view camera, provided by the photography department. The view camera is a unique photographic tool, with a multitude of commercial and creative possibilities. Through the course of the semester, student will learn the mechanical properties of the camera, and how to use these properties to elevate their creative potential. Also, students will be introduced to some theories and techniques of negative making, including the zone system, and other methods of film exposure and development. As the semester progresses, various printing techniques will be introduced designed to help students maximize the potential of the camera and their own photographic visions. Prerequisite: ART 218.

ART 322 - Digital Photography 4 hours. This is a course in the fundamentals of digital photography, designed for students with intermediate to advanced experience in "chemical" photography. Students will learn basic skills in imaging software (Adobe Photoshop), shooting with digital cameras, scanning and digital output, and then learn to apply these skills in conceptual art practice. Digital imaging will be explored in the context of photographic history, as well as contemporary art practice and theory.

ART 323 - Studio Lighting 2 hours. Principles of light and the clean-slate nature of the studio will be explored, along with subject, background, and studio tools. Digital camera fluency will provide necessary feedback. A self-directed project is required. Prerequisite: ART 218.

ART 325 - Advanced Print Media 4 hours. An extensive investigation into the traditional and non-traditional uses of materials and processes that grow out of the concepts inherent in kinetic, photographic and electronic printmaking processes. The focus is on issues involving specific forms of print media (book, print-suite, single print, mass production, CD-ROM, print installation). Time and instruction provided help to deepen students experience in one or more printmaking processes including etching, lithography, woodcut, and digital inkjet technologies. Content varies from instructor to instructor. At least one Sophomore Design, Video/Sonic, or Print Media Studio is required or permission of instructor. ART 225 highly recommended. May be repeated once for credit. (Fall and Spring)

ART 328 - Artists Multiples 4 hours. This advanced course explores ideas about artists' books and a wide range of printed multiple forms including objects, installations, CD-ROM and DVD. The notion of the multiple is explored in contrast to the traditional fine art print. Offset printing, traditional processes, and new emerging technologies will be utilized to produce work. Ideas inherent to the process of printmaking such as reproduction, translation, synthesis, remixing, proofing, recombination and collage will form the basis for discussion and inquiry At least one Sophomore Design, Video/Sonic, or Print Media Studio is required or permission of instructor. ART 225 highly recommended (Spring)

ART 329 - Digital Print Media 4 hours. An exploration of printing activities and techniques that question and expand the interfaces of the traditional print media of lithography, woodcut, and etching with contemporary digital imaging activities and techniques. Through the making of work we will look at how digital technologies affect the contemporary vocabulary of printmaking. We work with moving and still images and with images on paper as well as on the internet.

We make, send and receive images as ways of understanding how ideas about print media are expanding, how these same ideas have historically been rooted in notions about communication, and how we can conceive and make print translations that cross traditional media. Prerequisite: At least one Expanded Media Sophomore Design, Video/Sonic, or Print Media Studio or permission of instructor. ART 225 highly recommended. (Fall)

ART 332 - Junior Video 4 hours. An advanced studio course dedicated to working with video as a creative medium. Students explore methods of 'real time' image processing and digital compositing using tools spanning three decades of processor design, all of which can be used in combination to develop unique works of art. Junior Video explores a wide range of theories and traditions including but not limited to: advanced digital image processing, analog video synthesis, advanced computer editing, video installation, lighting, scripting, and a variety of other experimental approaches. Critiques of student work and an investigation of the history of Video Art are of great importance to this course. At least one Expanded Media Sophomore Design, Video/Sonic, or Print Media Studio is required or permission of instructor. ART 232 highly recommended. May be repeated once for credit. (Fall and Spring)

ART 338 - Large Format Digital Imaging 4 hours. Contemporary art making has been profoundly impacted by new digital technologies. This course focuses on how digital print media informs and evolves visual language for artistic expression. Providing each participant with a hands-on opportunity to explore large-format digital printing technologies, it is designed to help create a context in which to ask questions about the nature of dynamic media relative to the making of contemporary printed images. Looking for transitions, collapsing barriers, and sharing vocabulary, artists will consider multiples, sequencing, mark-making, notation, gesture, and narrative concerns within both digital media and traditional printmaking. Further experimentation across media will be investigated. These media may include: drawing, painting, photography, video, animation, multi-media and internet interfaces. Participants will be able to experiment with printing on a variety of handmade papers (up to 36"x 48") using eight color, permanent ink, large-format, ink jet technology. The course welcomes artists with beginning and advanced technological experience.

ART 339 - Junior Sonic Art 4 hours. An advanced studio course dedicated to working with sound as a creative medium. Not a music course, it is designed for visual art students who wish to explore a wide range of possibilities for working in sound. This course examines many technologies and traditions including but not limited to: digital sound processing, graphic notation, algorithmic synthesis, ambient structures, atmospherics, digital editing, live multi-track recording, and granular synthesis. Critiques of student work and an investigation of the history of experimental sound are of great importance to this course. Prerequisite: At least one Expanded Media Sophomore Design, Video/Sonic, or Print Media Studio or permission of instructor ART 232 highly recommended. May be repeated once for credit. (Fall and Spring)

ART 344 - Animation and Interactivity 4 hours. Students will explore the 'database' as a source for creative interactive art production. The class will encompass gathering, listening, documenting, sifting and reordering an array of media and computer based production techniques. Sound, video, animation, and image will be considered through a process of experimental storytelling, and 'deconstruction' via web based, CD-Rom and/or DVD authoring software.

This course is a unique opportunity to explore the boundaries of moving and still images, language and sounds through the construction of complex screen interfaces. Projects will be computer based and potentially touch screen accessible. At least one Sophomore Expanded Media Design, Video/Sonic or Print Media studio is required or permission of instructor. May be repeated once for credit. (Spring or Fall)

ART 346 - Junior Painting 4 hours. Junior painting involves intensive exploration into issues of painting and drawing with emphasis on the beginnings of each student's unique means of expression. It is a continuation of the basic painting experience begun in the sophomore year with concentration on problem solving through structured assignments. Students are encouraged to find ways of approaching common experience as well as developing independent work. Sessions are complimented by readings, critiques, presentations, and field trips. May be repeated. Course content varies from instructor to instructor. Prerequisite: ART 246. (Fall and Spring)

ART 347 - Color Theory 4 hours. This course is an in-depth study of the physical and psychological phenomena of color through a series of structured group and individual problems. While paint is the primary media employed, projects range from 2-D to collage and 3-D. An understanding of the relationship of color to ideas is pursued through readings, field trips, discussions, and watching films. Prerequisite: ART 246.

ART 348 - Junior - Mixing Materials 4 hours. From Picasso's cubist collages to Anselem Keifer's lead and straw works, the class combines both traditional and non-traditional painting and drawing materials that enhance narrative structures, work as metaphoric transformations, and the creation of formal dynamic juxtapositions. Projects are designed to encourage exploration of new realms of expression. Prerequisite: ART 246. (Spring)

ART 349 - Water-based Media 4 hours. Students explore the use of watercolor, gouache, acrylic, and egg tempera and experiment with various supports and surfaces, including paper, grounds, canvas, panel, and more. Prerequisite: ART 246.

ART 355 - Sculpture Foundry: From Miniature to Monumental 4 hours. This junior level course examines the process and practice of contemporary cast metal sculpture. The aim is to provide a platform to develop and push the boundaries related to the art of Foundry. In a critically engaged studio environment, students develop concepts and explore casting in bronze, iron, steel, copper, aluminum, while engaging with a variety of mold-making and construction techniques, including lost wax and the patination of metals. Individual or collaborative projects from miniature to monumental may include object-based work or site-specific installations. Prerequisite: ART 255.

ART 361 - Glass Blowing 4 hours. An intermediate-level exploration of glass and combinations of glass and other media as they apply to sculpture. Concentration in hot glass and glass blowing techniques (including color techniques), and mold making. Projects are developed to foster self-determination of ideas in relation to media. Prerequisite: ART 261. (Fall)

ART 362 - Advanced Glass Blowing 4 hours. A continuation of ART 361 that further develops personal expression in glass sculpture. Processes include glass blowing, solid working, mold making, and color, utilizing high-temperature glass enamels. Prerequisite: ART 361. (Spring)

ART 363 - Glass and Light 4 hours. This course is an in-depth investigation into the potential of light as a material and a comprehensive introduction to working with luminous tube technology --a normally commercial process--as a means of sculptural expression. The course examines neon's potential in combination with other materials both traditional and non-traditional as well as sealing, bending, processing of neon tubes, safe installation, and wiring. No prerequisite. (Spring)

ART 364 - Glass Casting 4 hours. An introductory investigation of personal expression through cast glass sculpture with an emphasis on mold making. Students learn open-faced solid glass casting using both loose and rigid sand molds. Topics range from the object and figurative sculpture to geometric abstraction and site-specific environments. (Fall)

ART 365 - Lamp Design 4 hours. The goal of the course is to use the "lamp" format as a medium of creative expression. The course incorporates a variety of material and processes including tube bending, simple electric circuiting and elemental metal and woodworking. No prerequisite. (Fall)

ART 366 - Advanced Glass Casting 4 hours. A continued development of sculptural expression using glass casting techniques. An intense mold making experience casting 3-dimensional glass projects in sand, wax, plaster, latex, and ceramic shell molds. (Spring)

ART 375 - Space and Place 4 hours. This course explores the use of space (physical) and place (contextual) as materials for expression. Through experiential site research, students create installations, site-specific interventions, and public works. Making use of a variety of sculptural materials and processes they fit the needs of the projects and investigating site as an inspiration, venue, and medium. Prerequisite: ART 255 or permission of instructor.

ART 378 - Art and Ecology 4 hours. This class explores the intersection of art and ecology through the critical inquiry of student-directed investigations. Topics covered may include ecology, environmental art, sustainability, and community activism responding to local ecological issues through use of creative methodologies. Prerequisite: ART 255 or permission of instructor.

ART 379 - Environmental Foundry: The Art and Act of Metal Casting 4 hours. This course examines progressive metal casting processes utilizing experimental mold making and furnace building techniques, new and emerging technologies, alternative materials and sustainable energy resources. Encouraging dialogue, the class is structured as a creative research group to gather information and develop conceptual responses to the act and art of casting. Prerequisite: ART 255.

ART 381 - Advanced Drawing 4 hours. A topical course providing students an intense immersion in both observational and conceptual drawing practices. Topics may include figure drawing, nature drawing, and drawing systems. May be repeated once for credit, preferably with a different instructor. Course content varies from instructor to instructor. (Fall)

ART 383 - Glaze Formulation 4 hours. This course introduces the basic science of glaze formulation and the effects of the interaction of commonly used materials. The goal of the course is a fundamental understanding of how glazes are formulated for functional, sculptural or experimental work. 1 1/2-hour lecture plus 1-hour lab. Elective. (Fall)

ART 384 - The Professional Portfolio 4 hours. This course prepares students for entry into the professional world of art and design. Development of a digital portfolio demonstrating a high level of skill and a personal style is the primary focus. Additionally, students are introduced to a variety of professional practices while building a formal resume and artist statement.

ART 385 - Internship 1-4 hours.

ART 386 - Visual Communications II 4 hours. Design is a profession based on concepts: on helping to define an opportunity, then developing a solution that will fulfill it. Subsequently, design includes the identification and management of the team that will bring it to life, whether the form is a product, communication, event, or place. From an entrepreneur designing an inventive new product, to an environmentalist designing a better way to interact with our national forests, the roles of design and marketing intermingle to form a cohesive team. This course puts together marketing students from the College of Business and design students, from the School of Art and Design into a union that investigates new opportunities in design.

ART 388 - Methods in Electronic Arts 2 hours. This elective course is designed to introduce students to the primary software applications and concepts used in the preparation of a wide variety of print and digital media. The course will focus on acquiring the skills necessary to move easily between the most relevant page layout, imaging, video and sound software as well as developing skills in digital file and digital color management. This course is open to all students interested in expanding their knowledge and expertise of software used in the digital arts. It is strongly recommended for beginning as well as advanced students working in Design, Print Media, Sonic, Video and Interactive Arts. (Fall or Spring)

ART 389 - Exhibition Design 2 hours. This course is an introduction to concepts, skills, and methods required to design and install exhibitions of contemporary art in professional museum and gallery settings. Topics covered include exhibition planning, concept design, technical lighting, and proper handling, storage, and installation of artwork. Student gain firsthand experience installing an exhibition at the Cohen Art Center and proposing a mock exhibition for the Fosdick-Nelson Gallery with drawings and scale models. Field trips to area museums and galleries provide additional opportunities to study and analyze exhibition design and to meet with professional museum and gallery preparatory and curatorial staff.

ART 392 - Individual Projects with Freshman Foundation Faculty 2-4 hours. Project or media based independent study with a faculty member in the foundations division. This course can only be used for elective credit; it does not replace sophomore, junior or senior studio requirements. Approved Plan of Study required.

ART 393 - Ceramic Art Individual Projects 2-4 hours. Project or media based independent study with a faculty member in the ceramic art division. This course can only be used for elective credit; it does not replace sophomore, junior or senior studio requirements. Approved Plan of Study required.

ART 394 - Sculpture and Dimensional Studies Individual Projects 2-4 hours. Project or media based independent study with a faculty member in the sculpture and dimensional studies division. This course can only be used for elective credit; it does not replace sophomore, junior or senior studio requirements. Approved Plan of Study required.

ART 395 - Expanded Media Individual Projects 2-4 hours. Project or media based independent study with a faculty member in the expanded media division. This course can only be used for elective credit; it does not replace sophomore, junior or senior studio requirements. Approved Plan of Study required.

ART 396 - Drawing, Painting, or Photography Individual Projects 2-4 hours. Project or media based independent study with a faculty member in the drawing, painting, photography division. This course can only be used for elective credit; it does not replace sophomore, junior or senior studio requirements. Approved Plan of Study required.

ART 398 - Exhibition Design Individual Projects 2-4 hours. Project or media based independent study with a faculty member in exhibition design. This course can only be used for elective credit; it does not replace sophomore, junior or senior studio requirements. Approved Plan of Study required.

ART 400 - Special Topics in Art 2-4 hours. Theory or other elective credit topics are explored Does not count toward BFA studio requirements.

ART 401 - Senior Studio 4-6 hours. The senior level studio course content is defined by students near the end of the junior year. Faculty are designated on the basis of the senior proposal.

ART 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

ART 481 - Kiln Design 2 hours. An introduction to the principles of gas kiln design. A kiln is built every year by this class. Students must enroll in both lecture and lab. (Fall)

ART 482 - Advanced Kiln Design 2 hours. An introduction to the principles of electric kiln design. Students learn how to build and repair common types of electric kilns. Students must enroll in both lecture and lab. (Spring)

ART 499 - Senior Show 0 hours. The culminating exhibit for the BFA degree. Prerequisite: 68-72 studio credit hours earned and senior standing in the BFA program

Art History

ARTH 120 - Topics in Art History: Non-western 2 hours. Selected topics in non-western art history are covered. Topics vary from term to term. (C)

ARTH 121 - Wild Spirits and Divine Kings 2 hours. This course introduces students to art from a variety of cultures that Westerners long dismissed as "primitive." The premises that all art performs a function and that artists contribute to the orderly functioning of society allow us to look at Non-Western art without the bias and ethnocentrism that have historically colored our views. The class investigates such aspects of African, Oceanic, Native American and Pre-Columbian art as style and iconography, but focuses on its use in religious, political, and social contexts. (C) (GP)

ARTH 122 - Arts of the Pacific Isles 2 hours. This course examines the arts of Melanesia, Micronesia, and Polynesia in cultural context, emphasizing their relationship to other aspects of Oceanic societies. Topics will include the men's house and women's art in New Guinea, art and leadership in Island Melanesia, the decorated body in Polynesia, patterns of power in Micronesia, and continuity and change in Pacific art. (C) (GP)

ARTH 123 - Art of China 2 hours. This quarter-long survey will introduce beginning art history students to the arts of China from the prehistoric period to present day. Among the topics to be discussed will be ancient bronzes and other funerary arts, the classical style of the Han Dynasty, landscape painting in the Song Dynasty and contemporary issues in post-Mao China. The course will consist of lectures, exams and a short research paper. (C)

ARTH 124 - Native American Arts: Spirited Materials and Technologies 2 hours. Native American arts are as numerous as the ecosystems of the continent, and incorrigibly undermine our ability to categorize artifacts. This course introduces students to art from a variety of cultures that Westerners long dismissed as "primitive." Our reevaluation premises that all art performs a function and that artists contribute to the orderly functioning of society. The class is organized by focuses on materials and environmental influences. Particular emphasis will be placed on relating materials, style, and iconography to religious, political, and social contexts. (C) (GP)

ARTH 125 - Australian Indigeneous Art 2 hours. This course offers an introduction into Australian Indigenous (Aboriginal) Art. We will explore both traditional and contemporary artistic production (painting, sculpture, weaving, photography film) in different contexts, from the sacred realm of ceremony to present day public spheres. We will be looking in what way Aboriginal mythology influenced the art making. At the same time we will be asking questions about relationship between art, culture, and colonization.

ARTH 130 - Topics in Art History: Ancient to Baroque 2 hours. Selected topics art history from ancient to baroque are covered. Topics vary from term to term. (C)

ARTH 131 - Power and Authority in the Ancient World 2 hours. This course studies how art and architecture reflect political structures from the ancient Western world. Themes that will be addressed include the concepts of kingship, deifying rulers, class structure, colonial expansion, and political propaganda. We will pay particular attention to how works of art and architecture were made and how they were received in the ancient cultures of Sumer, Egypt, Greece, and Rome. (C)

ARTH 133 - Renaissance-Baroque Survey 2 hours. This quarter-long survey is designed to introduce first-year students to the developments of art and architecture in Europe of the fourteenth through the seventeenth centuries. The course will consist of lectures, exams and a short research paper. (C)

ARTH 135 - Design and the Enlightenment 2 hours. An introduction to the revolutions of the eighteenth century in important technologies, such as those intrinsic to printing, pottery, and building. This course will consider the materials, styles, and social meanings of Wedgwood's pottery, James Watt's steam engines, Baskerville's and Caslon's typefaces, Sheraton's chairs, and Robert Adams' architecture. This first generation of industrial designers and their global impact will be our focus as we look at the larger significance of design. (C)

ARTH 136 - The Role of the Medieval Image 2 hours. This course will investigate the character and function of the image during the Middle Ages. The influences and development of Christian images from its early pagan antecedents to its fruition in Gothic courtly style will be studied. Aspects of learning, propaganda, and piety within European medieval culture will be considered both from clergy and secular patronage.

ARTH 140 - Topics in Art History: Modern 2 hours. Selected topics in modern art history are covered. Topics vary from term to term. (C)

ARTH 141 - 20th Century Art 2 hours. This class will provide a critical introduction to modern art. It will trace the contexts of modern art movements and explore key themes. We will look at a wide-range of art genres, including painting, sculpture, and photography. (C)

ARTH 143 - Art and Social Ideals 2 hours. This course will introduce students to the development of the concept of modernism in art and will focus on discussing examples of related utopian visions of an idealized past or an anticipated future. (C)

ARTH 144 - The Ideal Body 2 hours.

ARTH 146 - Modern Sculpture 2 hours.

ARTH 148 - The American Century: Modern Art and National Identity, 1900-2000 2 hours. This course provides a critical survey of 20th century art in the United States, a period when American art was developing as an independent aesthetic. A central theme is the construction of modern art in America: its multiple styles, its public presentations, its critical receptions, and its continued dialogue with national identity.

ARTH 211 - Issues and Debates in Contemporary Art 3 hours. A topically structured, discussion-based thematic study of issues and debates relevant to major movements and developments in contemporary art. Students are introduced to vital, ongoing conversations within the School as well as a variety of coexisting and competing opinions about investments in art. The course encourages students to develop, strengthen, and present their own views about art. Should be taken Spring Semester sophomore year.

ARTH 300 - Topics in Art History 2 or 4 hours. Topics vary from semester to semester. May be repeated for credit.

ARTH 301 - African Art I 4 hours. A survey of the arts of sub-Saharan Africa with an emphasis on sculpture. The course focuses on the role art plays in African cultures and also introduces students to a wide range of art forms and styles. (GP)

ARTH 302 - African Art II 4 hours. Continuation of ARTH 301, a survey of the arts of sub-Saharan Africa. (GP)

ARTH 321 - Topics in Greek and Roman Art and Architecture 4 hours. A study of art and architecture from ancient Greece and Rome. Among other issues, the course addresses changing attitudes of style, function, and patronage during this period and investigates the influence of social and religious belief. The study of Greek art emphasizes the development of stylistic periods. Roman art study focuses on individual historical periods of various emperors as reflected in the patronage.

ARTH 322 - Topics in Medieval Art, AD 300-1500 4 hours. This course explores the medieval image in art with an emphasis on manuscript illumination. Various media, including wall painting, mosaic, enamel work, stained glass, ivory, wood, and (non-architectural) stone sculpture are investigated. The Early Christian, Byzantine, Early Medieval, Romanesque, and Gothic Eras are studied with regard to the work of art in its cultural and historical context, regional style, iconography, and patronage.

ARTH 323 - Medieval Architecture, AD 300-1500 4 hours. This course focuses on architecture and architectural sculpture. It traces the development of Imperial and Byzantine architecture of the Mediterranean region and then investigates early medieval, Romanesque and Gothic architecture. Topics discussed include the imperial tradition, the Pilgrimage Road, the monastic orders, birth of Gothic style under the patronage of Abbott Suger, and the development of High Gothic, both secular and ecclesiastical.

ARTH 331 - Italian Renaissance Art 4 hours. An in-depth study of the Renaissance Period and its theories. Artistic developments in Italy are emphasized.

ARTH 332 - Northern Renaissance Survey 4 hours.

ARTH 335 - Northern Baroque 4 hours. This course is a survey of the Southern and Northern Netherlands in the 17th Century that will look at the role of art in Netherlandish society and economy. We'll consider the methodological issues surrounding attribution and interpretation that confront art historians today. This course is writing intensive, with two short papers, a long research paper, and essay exams.

ARTH 342 - Primitivism: A Western Perspective 4 hours. This course will investigate the issue of primitivism, one of the major topics in modernism. We examine the problematic nature of primitivism, specifically artists' involvement in the broader discourse of colonialism. The class will critique a variety of art practices--including photographic mapping, "black deco" spectacle, ethnographic Surrealism--ranging from the mid 19th century to the present. Prerequisite: ARTH 211.

ARTH 343 - Modern Art 4 hours. Encompassing the movements of Symbolism to Surrealism, this course covers the developments in modern art during the first half of the 20th Century. Students explore such themes as modernity, primitivism, and utopian theory as well as the stylistic developments and formal innovations of this period.

ARTH 351 - In, of, and around Contemporary Craft 4 hours. This course investigates the nature and place of craft in modern culture. We traverse a century of craft-based practices--from the artisan guilds of the Arts and Crafts Movement to the virtual guilds of today--focusing on recent strategies and practices. Prerequisite: one 100-level art history course.

ARTH 352 - Contemporary Projects in Art 4 hours. This interactive course will focus on and study the projects of selected contemporary artists. These projects will serve as platforms for investigating issues and problems related to various contemporary art forms and movements including, the embodiment of the viewer, play and reality, new technologies and consciousness, ironic modernism, and the critique of the post-medium condition. This course can be substituted for ARTH 211 in the BFA curriculum.

ARTH 353 - Art as Industry 4 hours. What is at stake in calling art "work"? Where does craftsmanship end and ordinary manufacture begin? Examining "industry" locally, students conduct research in large-scale facilities working in ceramic, glass, and metal to ponder the social conditions of production. Prerequisite: ARTH 211.

ARTH 354 - Recent Sculptural Practices 4 hours. A series of recent projects exploring contemporary issues in sculpture will be the focus of this class. We will be looking an international array of artists, including: Matthew Barney (United States), Robert Irwin (United States), Juan Munoz (Spain), Doris Salcedo (Colombia), Thomas Schutte (Germany), and Rachel Whiteread (Britain). The work of these artists will be examined in the context of larger post-war debates. (GP)

ARTH 362 - History of Photography 4 hours. A survey course covering the pre-history of photography up to Post Modernism. Required readings directly related to the slide lectures are placed on reserve at Scholes Library. The course is open to Sophomores, Juniors, and Seniors.

ARTH 363 - Ceramics and Cultural Identity: Global Traditions and Innovations 4 hours. A thematic approach to the history of ceramics that is global and cross-disciplinary, designed for students to re-conceive their inheritance and its varied strands of tradition, convention and invention. Topics include ritual objects, tableware and dining customs and the funereal. Evidence will span an enormous range of cultures and era, from ancient to contemporary. The approach of material culture will reveal the complex cultural issues surround the ceramic medium. (GP)

ARTH 364 - Design and Culture 1600-1900: Tombstones to Telegraph Poles 4 hours. Trace chair, the coffee mug, and the printed page back in time to consider their significance in America between 1600 and 1900. Consulting primary documents, such as houses, furnishings, and photographs, and contemporary secondary readings, this course will examine the concepts, social meanings, styles, and craftsmanship of American material culture. Different theoretical models of interpretation will complement looking at stuff and learning about history.

ARTH 365 - Design and Culture, 1900-Present 4 hours. We will ponder design in the age of rapid obsolescence, and consider how typefaces, furniture, table settings, and facades reflect the changing values of our turbulent society. We will assess artifacts in terms of materials, craftsmanship, consumption, gender, authority, and cultural identity. Can a typeface engineer mass consumption? Can a chair articulate an existential crisis? Can a mug express emotional ambivalence? Theoretical and historical readings will be integral to this study of visual culture.

ARTH 370 - (Re)Considering the Ceramic Object 4 hours. This class will attempt to re-map twentieth-century ceramics and its critical place within the broader art system. Our discussions will be based on a range of texts and images, both within and beyond the field of ceramics. Particular emphasis will be placed on recent studio practices.

ARTH 382 - Women in Art 4 hours. This course considers various gender issues in art history including the role of women artists in western and non-western cultures, feminist re-evaluation of art history, and the existence of a "feminine art." Students are assigned research papers or oral reports on topics generated by readings, lectures, and class discussions. (Cross-listed as WMST 382)

ARTH 384 - Strategies of Display: Museums, Fairs, and Fleamarkets 4 hours. Theorizing artistic reception has an added urgency in our era when presentation is the product. Artists need to constantly re-think their own practice in relation to new technologies, new ideas and the resurgence of old ideas. This course will look at how artists have addressed modes and technologies of presentation and how theories of the space of art have played a role in defining culture and cultural institutions. A critical appreciation of light, frames, and framing devices and other exhibition technologies will be surveyed in museums and malls, flea markets, and artist's homes.

ARTH 392 - Art History Individual Projects 2-4 hours. Project or media based independent study with a faculty in the art history division. This course can only be used for elective credit. It is not intended to replace sophomore, junior or senior studio requirements. Permission of the instructor is required.

ARTH 400 - Topics in Art History 2 or 4 hours. Topics vary from semester to semester. May be repeated for credit. Prerequisite: One 300-level art history course.

ARTH 411 - Pre-Columbian Art 4 hours. A survey course that acquaints students with major monuments and styles of Pre-Columbian American art, including: architecture, sculpture, ceramics, dress, and body adornment Examined are several millennia of pre-contact art traditions in Meso America and South America from earliest art producing cultures to the Aztecs and Incas. The course looks at archaeological contexts and investigates possible meanings for art and written records dating from early periods that enhance our understanding of later cultures. Prerequisite: One 300-level art history course.

ARTH 440 - Ceramics from Arts and Crafts to Modernism, 1876-1929 4 hours. Beginning with the 1876 Philadelphia Centennial Exposition and ending with the 1929 International Exhibition of Ceramic Art, this course will survey tidal shifts in American ceramics, exploring the substance of styles. We will examine claywork in relation to patterns of consumption and emulation, artistic invention, and tradition. We will measure change by looking at expositions in galleries, world's fairs, and museum collections. Original archival research is an important component of the workload. Prerequisite: One 300-level art history course.

ARTH 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

ARTH 460 - Art Historiography and Methodology 3 hours. This writing-intensive seminar introduces students to research methods in art history and to a range of approaches of historical and current significance. Students identify art historical problems, formulate hypotheses, conduct research, read critically, build arguments, and present reports. Prerequisites: Completion of four upper-division Art History courses and permission of major advisor.

ARTH 461 - Viewing Sculpture: Figurative, Modernist, Minimalist, Performative 4 hours. A close examination of the nature of sculptural viewing over the past 200 years. Sculptural theory is considered alongside contemporary artistic practice, ranging from Antonio Canova's neoclassical figures to Janet Cardiff's audio walks. Primary sources will be used for class discussion, along with Potts' "The Sculptural Imagination".

In addition to thinking critically about the phenomenon of viewing, we will investigate the changing attitudes toward sculpture and the broadening definitions of three-dimensional work in the modern period. Prerequisite: One 300-level art history course.

ARTH 490 - Issues in Non-Western Art Seminar 4 hours. A round-table seminar based on extensive group discussions and in-depth individual research on non-Western art topics. (GP)

ARTH 492 - Contemporary Topics Seminar 4 hours. A round-table seminar based on extensive group discussions and in-depth individual research on significant contemporary events and developments in and around the art world. Prerequisite: One 300-level art history course.

ARTH 493 - Art in the Age of Digital Recursion 4 hours. A round-table seminar based on extensive group discussions and in-depth research on recent innovations in technology and how that technology has impacted art production and theory. Prerequisite: One 300-level art history course.

ARTH 494 - Pablo Picasso Seminar 4 hours. This course examines issues of representation and reception in the work of Pablo Picasso. Students will critically explore a broad range of Picasso's work, including painting and printmaking, sculpture, and ceramics. This artist, whose production spanned most of the 20th century, will serve as a case-study for discussions on the nature of modern theory and art criticism. Prerequisite: One 300-level art history course.

ARTH 499 - B.S. Thesis in Art History and Theory 2 hours. Capstone course open to graduating majors in Art History and Theory for the development of an article of publishable quality presented as a B.S. Thesis. Students write the thesis under the guidance of their primary advisor. Prerequisites: Completion of at least five upper-division Art History courses and permission of major advisor.

Kazuo Inamori School of Engineering

Biomedical Materials Engineering Science/Ceramic Engineering/ Glass Engineering Science/Materials Science and Engineering

CEMS 200 - Special Topics 2-4 hours.

CEMS 203 - Introduction to Ceramic Powder Processing 3 hours. An introduction to ceramic powder processing that couples lectures with laboratory experiments. The course the practical aspects of ceramic processing: powder characterization, colloidal stability and suspension rheology, ceramic fabrication and microstructure evolution (sintering and densification). Prerequisite: CHEM 106.

CEMS 214 - Structure and Properties of Materials 3 hours. This course introduces the student to the relationships between the various levels of structure (electronic, atomic, crystal, microstructure and macrostructure) in a material and the influence of structure on properties and performance. The influence of structure on mechanical, electrical, optical, thermal and magnetic properties are discussed in the context of bonding, defects, crystal, micro and macrostructure. A significant aspect is the emphasis on the raw materials from which fuels, engineering polymers, ceramics and metals are derived. Prerequisites: CHEM 106, MATH 152.

CEMS 215 - Microscopy and Microstructural Characterization 3 hours. Students learn how to use optical and scanning electron microscopes for a range of applications. Underlying principles of the interactions of light and electron beams with materials are presented, and these interactions are related to crystal structure and microstructure of materials. Topics covered include mineral, phase, and element identification, characterization of microstructure, measurements of geometrical quantities, determinations of index of refraction, identification of defects, analysis of fracture surfaces, uses of microscopy in quality control, specimen preparation, photography using microscopes. There are two lectures and one lab each week. Prerequisite: CEMS 214 or 216, previously or concurrently.

CEMS 216 - Bonding and Structure of Materials 3 hours. An introduction to the basic principles of solid materials structure. Electronic, atomic, and crystal structure are the primary focus for discussion. Structure is the foundation for understanding the physical and chemical properties of materials and for discussing defects in crystals. Key concepts are bonding within solids, rules that govern packing of atoms to form crystals, crystal structure, techniques for describing material's crystallography and selected properties of crystalline materials. Discussions culminate in an overview of common crystal structures in metals and ceramics. Prerequisites: CHEM 106 and CEMS 214.

CEMS 235 - Thermodynamics of Materials 4 hours. This course introduces the fundamental concepts of thermodynamics, equilibrium, and thermochemistry relevant to materials systems. Prerequisites: CHEM 106, MATH 253, CEMS 214.

CEMS 237 - Thermal Processes in Materials 4 hours. This course studies the basic principles of high-temperature reactions and processes. The course is divided into several subunits: ternary phase diagrams, surface and interface phenomena, atomic defects in materials, diffusion, and sintering theory. Students will get a solid foundation in each of these areas as well as seeing the interrelation and importance of those principles with respect to a control of the microstructure and properties of materials. Prerequisite: CEMS 235 or CHEM 343.

CEMS 251 - Mechanics of Materials 3 hours. Successfully completing this course enables students to understand the nature of forces acting on objects and to calculate the stresses and strains generated by those forces in simple situations. Situations include classic beam loading as well as more materials-oriented cases such as stresses in dams and reinforced materials (e.g., concrete, composites). Applications to engineering design and to mechanical testing of materials are demonstrated. Students learn to calculate the variations of stress and strain using Mohr's circle method. Prerequisite: PHYS 125.

CEMS 255 - Raw Materials for Artists 2 hours. This course introduces the science and application of ceramic raw materials and will include the geology of formation, chemistry, and appropriate uses for the development of bodies, in terms of forming and reactions on firing, and for glazes. (Not open to engineering students.)

CEMS 301 - Ceramic Science for the Artist 4 hours. The science and technology of whitewares covering mineralogy, raw material characterization, mixing, suspension behavior and control, rheology and plasticity, forming processes, drying, firing, the use of phase diagrams, thermal stress and microstructural evolution, mechanical properties, and glazing. This course provides the non-engineering student with the practical basis necessary for analyzing problems commonly encountered in the production of whitewares.

Homework assignments are practical in nature. The project will require the application of the principles learned in class. Prerequisite: Junior standing in a non-engineering program.

CEMS 314 - Ceramic Processing Principles 3 hours. Ceramic processing and fabrication is discussed in terms of scientific principles and engineering unit operations. Topics include the beneficiation and characterization of raw materials, colloidal behavior and rheology, additives, particle packing, mixing, forming processes, drying, and sintering. Prerequisite: CHEM 106.

CEMS 315 - Electronic Ceramics Laboratory 2 hours. Measurement and analysis of commercially significant electronic components: ferrites, varistors, capacitors, resistors, non-ohmic materials, etc. Laboratory emphasizes real-world conditions, problem solving, and development of engineering judgment. Prerequisites: Junior standing and CEMS 221, or ELEC 220, or CEMS 352.

CEMS 316 - Chemical Processing in Ceramics 3 hours. This course provides the knowledge and working understanding of the chemical facts and principles involved in the synthesis of raw materials and the chemical fabrication techniques used in current industrial practice. The discussion focuses attention on both oxide and non-oxide ceramics involved in high-performance structural and electronic applications. The design of chemical processes is emphasized in assignments. Prerequisite: CHEM 106.

CEMS 317 - Sintering 3 hours. This course covers solid-state, liquid-phase, viscous-phase, and reactive sintering in terms of mechanisms, grain growth, impurity segregation and grain boundaries, microstructural evolution, and microstructure related properties. Oxide and non-oxide materials and experimental methods are also discussed. Prerequisites: CEMS 237 and 314 or permission of instructor.

CEMS 318 - Refractories 3 hours. This course provides technical information concerning the raw materials, processing, microstructure, properties and applications of the principal types of refractories and high-temperature insulations. Technological and engineering factors pertinent to manufacture, process design and control and design of refractory and insulation systems are presented. An understanding of current practice is used as a basis for recognizing refractory needs for design and applications, and areas for research and development of materials for future applications.

CEMS 321 - Instrumentation and Controls for Engineers 2 hours. An introduction to LabView programming for data collection, data analysis and closed loop control of instruments and devises. Students will design simple virtual instruments, control programs and also study the function of complex electronic instruments and their control. Prerequisite: CEMS 221 or ELEC 220.

CEMS 322 - Introduction to Glass Science 3 hours. A survey of the nature of the vitreous state with detailed consideration of structural and kinetic theories of glass formation. Composition-structure-property relationships are emphasized to illustrate how glass compositions can be designed to fulfill a particular set of product requirements. Processes for "post-forming" treatments which further tailor properties are also presented. Prerequisite: CEMS 235.

CEMS 324 - Mass Transport in Glasses and Melts 3 hours. A thorough discussion of the fundamentals of diffusion processes, which will be followed by discussion of ionic diffusion and ion exchange, gas diffusion, viscosity, ionic conductivity and dielectric relaxation, mechanical relaxation, chemical durability, and weathering in glasses, glass-ceramics, and melts. The effects of both atomistic structure and morphology will be discussed for each of these topics. Prerequisites: CEMS 235, 237 and 322.

CEMS 325 - Glass Laboratory 2 hours. This laboratory prepares students to fabricate and measure the properties of glass correlating composition and property relations, and observing trends. Optical property analysis is emphasized as are novel fabrication techniques such as sol-gel glass design for high-tech applications such as biomedical and photonics. Pre- or co-requisite CEMS 322.

CEMS 328 - Industrial Glass and Glass-Ceramics 3 hours. Topics include glass compositions, raw materials, glass melting, furnace operation, glass forming-container, sheet tubing and pressed ware. Glass product manufacture, glass-to-metal sealing, annealing and tempering, quality control, glass-ceramics, phase transformation, immiscibility, homogeneous and heterogeneous nucleation, crystal growth, and industrial glass-ceramics processes. Prerequisite: CEMS 322.

CEMS 334 - Introduction to Polymers 3 hours. An introduction to the polymeric materials for engineering and industrial use that studies the fundamental classes, processing, properties, and uses of polymeric materials. In addition to the major polymers, specialty polymers for biological, electrical, and high-performance uses are discussed. Necessary organic nomenclature is covered. Prerequisite: CEMS 235 or CHEM 343.

CEMS 336 - Physical Metallurgy I 3 hours. Introduction to the physical and mechanical properties of metals with an emphasis on relating structure to properties. Strength, toughness, ductility, dislocations, phase diagrams, alloying, phase transformations, strengthening mechanisms, heat treatment, and solidification in metal systems. Processing and properties of plain carbon steels. Overview of forming and joining methods. Prerequisites: CEMS 214/235/251 or MECH 241/244/320.

CEMS 342 - Thermal and Mechanical Properties 4 hours. This course is an in introduction to the thermal and mechanical behavior of materials, including ceramics, glasses, metals, and polymers. Properties considered include strength, elastic modulus, hardness, toughness, thermal stresses, heat capacity and enthalpy, thermal conductivity, and thermal expansion. Heat transfer is also covered. Discussion includes the effects on thermal and mechanical properties structure (atomic scale and microstructure), processing, and temperature. Prerequisites: CEMS 214, 235 and 237.

CEMS 344 - Properties II: Electrical, Magnetic, and Optical 4 hours. Underlying the macroscopic electrical (electronic) properties of materials is the behavior of the atomic state. In this course, a summary of basic concepts covering the electrical, magnetic, and optical behavior of solids is presented. Emphasis is placed on the fundamental properties of electrons and ions in solids. The relationship of these fundamental properties to ceramics is discussed using microstructure, property relations. The use of materials (ceramics) in electrical, magnetic, and optical devices is discussed through solutions to numerical problems. Prerequisites: PHYS 126, MATH 271, CEMS 237.

CEMS 347 - Spectroscopy 2 hours. This course introduces spectroscopic techniques used to characterize the atomic structure of materials. Lectures focus on the fundamental physical/chemical phenomena associated with the various techniques, their practical application, and the interpretation of the resultant spectra. Capabilities and limitations of the various techniques are discussed. Laboratory exercises consist of hands-on characterization of the bulk and surface structure of various materials via the spectroscopic techniques discussed in lecture. Prerequisite: CEMS 216.

CEMS 349 - X-ray Characterization 2 hours. This course, which includes a laboratory, introduces x-ray techniques used to characterize materials. Prerequisite: CEMS 216 and junior standing.

CEMS 352 - Electroceramics 3 hours. A survey of ceramics that are used for their electrical, magnetic, optical and piezoelectric functions including discussion of their design, composition, critical properties, processing techniques and applications. Categories include insulators, ceramic superconductors, capacitors, resistors, gas sensors, thermistors, varistors, piezoelectric, magnetic and electro-optic ceramics. Prerequisite: PHYS 126, CEMS 214.

CEMS 368 - Introduction to Bioengineering 3 hours. Biomedical engineering combines advances in engineering, biology and medicine to improve human health. It is, by necessity, cross-disciplinary. This course surveys and integrates selected aspects of engineering, biomedical, and clinical sciences to provide students with a global perspective of the field. Offered Fall semesters only. Prerequisites: CEMS 214 and BIOL 362 or permission of the instructor.

CEMS 400 - Special Topics 2-4 hours. This course covers topics which are not ordinarily covered in detail in the general curriculum, but are either current areas of faculty research or areas of current or future industrial interest.

CEMS 411 - Science of Whitewares 3 hours. The science and technology of whitewares (i.e., primarily stonewares and porcelains) covering mineralogy, raw material characterization, mixing, rheology and plasticity, forming processes, drying, firing, phase equilibria, thermal stress evolution, microstructural characterization, physical properties, and glazing. This course provides students with a fundamental basis for analyzing problems encountered in whitewares production so that general knowledge can be used to solve specific problems. Prerequisites: CEMS 107 203, 314.

CEMS 420 - Optical Glasses 3 hours. A detailed discussion of the primary glasses used in optical applications. Approximately one-half of the course will focus on pure and doped vitreous silica. The remainder of the course will deal with glasses containing rare-earth ions, infrared- transmitting glasses, and traditional optical glasses. The production, structure, and general properties of each type of glass will be discussed in detail. The optical application of each glass will be stressed throughout the course. Prerequisite: CEMS 322.

CEMS 424 - Introduction to Photonics 3 hours. This course introduces the field of photonics, which can be defined as the creation, manipulation and detection of light for signal carrying capacity, in other words photonics is to light, what electronics is to electricity. Students learn about waveguides, both planar and fiber optic, lasers, semiconductor devices (Lasers, LED's, diodes, etc.) and nonlinear optics.

The materials processing aspects of these devices are emphasized, and the accumulation of devices and operations for communication systems computing and integrated optics are outlined. Prerequisite: CEMS 344.

CEMS 425 - Optical Spectra of Solids 2 hours. This course provides an introduction to the optical spectra of solids. Materials discussed will include crystalline and amorphous ceramics, metals, semi-conductors, and polymers. The course will consider the primary optical phenomena that occur between the ultraviolet and infrared edges. A number of applications of optical materials that are based on their optical spectra will be discussed, including lasers, phosphors, solar cells, infrared windows, optical sensors, and photochromic/electrochromic materials.

CEMS 426 - Advanced Glass Science 3 hours. This course covers advanced topics in glass and related fields which are not ordinarily covered in the general curriculum, but are either current areas of faculty research interest or areas of current or anticipated industrial or academic interest. Examples of possible topics include, but are not limited to, rare elements in glasses, non-silicate oxide glasses, halides in glasses, chalcogenide glasses, sol-gel processing, specialized experimental methods, such as neutron and or x-ray diffraction spectra, characterization of glasses, biological applications of glass, glass-ceramics, computer modeling of glass structure, natural glasses, and other topics which correspond to interests of the students and faculty. This course may occasionally be taught by visiting faculty in areas of their specialization. Readings from the literature will normally be a significant component of this course. Prerequisite: CEMS 322.

CEMS 434 - Polymer Characterization 3 hours. An introduction to the scientific principles of synthesis, processing, characterization, and testing of polymeric materials. Relationship of polymer properties and performance to the underlying structure and synthetic conditions is emphasized by application of appropriate scientific approaches. Hands-on experience with structure-property characterization of polymeric materials is included in the required laboratory. Prerequisite: CEMS 334 or CHEM 310.

CEMS 436 - Physical Metallurgy II 3 hours. Structure/processing/property relationships for metals with an emphasis on mechanical properties. Mechanical testing techniques and the effect of test temperature and strain rate on properties. Failure analysis, corrosion, fracture, fatigue, and creep. Brief introduction to the physical metallurgy of aluminum, titanium, magnesium and stainless steel alloys. Laboratory experiments emphasizing mechanical testing, heat treatment and microstructural development. Prerequisite: CEMS 336.

CEMS 438 - Nanotechnology 3 hours. The science and engineering of creating materials, functional structures and devices on the nanometer scale. Carbon nanotubes, nanocrystals, quantum dots, nanoscale films and composites, properties of materials as a function of size, self-assembly. Molecular engineering, bionanotechnology, devices and applications. Prerequisite: CEMS 214.

CEMS 446 - Composite Design and Fabrication 3 hours. The influence of materials, design and processing on composite properties is investigated. Discussions include details concerning state-of-the-art fabrication technology and performance of continuous-fiber-reinforced composites. Reviews of the open literature are presented concisely in order to understand and identify approaches toward addressing composite materials limitations. Prerequisites: (CEMS 251 or MECH 241), CEMS 214.

CEMS 456 - Ferroelectric Materials and Devices 3 hours. The course starts with a basic discussion of polarization in a dielectric, reviews electrostatic boundary conditions and then develops the concept of domains with the occurrence of spontaneous polarization. Domain reorientation is shown to develop anisotropic properties and frequency effects in the dielectric constant. The structural transitions are modeled with thermodynamic theory and soft mode concepts. The second part of the course is concerned with the effect of the symmetry of spontaneous polarization on the structure and properties. The properties are expanded into devices and the use of ferroelectric material as piezoelectrics, pyroelectrics, electrooptics, and dielectrics.

CEMS 458 - Materials for Electronic Packaging 3 hours. Electronic package systems for information processing include the function of electrical interconnection, cooling and physical support for the sets of semiconductor I.C. chips plus other components in electronic systems. Semiconductors, ceramics, polymers and metals are generally used in combinations in all packages; and, hence, it is necessary to understand their bulk properties as well as their interface structures and characteristics. This course focuses on the design of materials and processing needs for packaging technology from chip to board using principles involved in key areas of materials science and engineering disciplines. Basic properties and processing methods used in the design and fabrication of semiconductor IC's, ceramic substrates, metal interconnections, and polymers are discussed. Prerequisites: CEMS 314, 344.

CEMS 464 - Statistical Foundations for Manufacturing 3 hours. Following a review and extension of ANOVA and regression, experimental design is introduced as an extension of statistical methods. Various standard designs and their analysis are introduced and applied to research and quality control situations. Factorials, fractional factorials, response surface designs, and mixture designs are covered. Statistical process control, control charts, and optimization are introduced. Computer methods will involve some standard packages such as SPSS, Mini Tab, or IMSL on the mainframe, or software packages on computers in the College micro-computer labs. Prerequisites: ENGR 305 or MATH 241.

CEMS 466 - Skeletal Tissue 3 hours. The skeleton contains 206 bones that provide strength and rigidity yet allow flexibility. However, bone can fail as a result of both disease and insult. In this course we study the hierarchical structure of bone, how disease affects it and, subsequently, its repair both medically and surgically. Offered every year. Prerequisite: CEMS 368.

CEMS 468 - Biomedical Materials 3 hours. A survey of ceramic, metal and polymer materials and devices for repair and replacement parts in the human body. Emphasis is on the nature of the materials, the design and fabrication of devices, properties, applications and the problems of introducing foreign materials into the biosystem. Prerequisites: CEMS 214 and 251.

CEMS 480 - Thesis 2 hours. An independent research project carried out under the supervision of a faculty member. Senior standing required.

CEMS 481 - Thesis 2 hours. An independent research project carried out under the supervision of a faculty member. Senior Standing required.

CEMS 484 - Engineering Operations 4 hours. This course helps students understand the engineering and business aspects of a glass and ceramic manufacturing facility with an overview of large scale manufacturing processes of glass/ceramic products. Major topics covered are: quality control, plant layouts and the use of charts, the economics of manufacturing including cost estimation, cost accounting, depreciation, cash flow, tax consequences and rate of return analysis. Significant emphasis is placed on a term report covering set-up of business plans for a hypothetical glass or ceramic product. A visit to at least one glass or ceramic manufacturing plant is required. Senior standing required.

Electrical Engineering

ELEC 106 - Discoveries Laboratory 2 hours. A hands-on laboratory in which freshman electrical engineering students will build motors, generators, lasers, solar-cell power generators, programmable robots and more.

ELEC 210 - Digital Logic 4 hours. Number systems, conversion, module-N arithmetic and digital coding techniques. Boolean algebra and minimization techniques. Combinational and sequential logic design; registers and counters; memory and programmable logic devices.

ELEC 220 - Circuit Theory I 4 hours. Voltage and current laws, voltage and current sources, resistor, capacitor, and inductor. Series and parallel circuits, equivalent circuits, mesh and node equations, sinusoidal response, electric power and energy. Prerequisite: PHYS 126; pre- or co-requisite: MATH 271.

ELEC 303 - Software Engineering 4 hours. Software engineering concepts and techniques, structured design and modular construction, fundamentals of programming style; high level language programming, error detection and error location techniques.

ELEC 310 - Microprocessor Systems and Applications 4 hours. Microcomputer components, registers, buses, and memory systems, machine instructions, machine language arithmetic, assembly language, microprocessor interfacing. Prerequisite: ELEC 210.

ELEC 320 - Circuit Theory II 4 hours. First order and second order circuits, natural and forced response, step response, passive and active filters, transformers, dependent sources (modeling, biasing, and gain calculation), Fourier series, Fourier series analysis. Prerequisite: ELEC 220.

ELEC 322 - Signals and Systems 3 hours. Signal and system modeling concepts, system analysis in time domain, Fourier series and transform, Laplace transform, state variable techniques, z-transform, analysis and design of digital filters, FFT and applications. Prerequisite: ELEC 220.

ELEC 354 - Device Electronics 3 hours. Semiconductor devices and circuits. Unipolar. bipolar, and MOS devices. Introduction to amplifiers, oscillators, and filters. Prerequisite: MATH 271.

ELEC 356 - Electronic Circuits 4 hours. Analysis and design of small signal and large signal electronic amplifiers. Frequency response, feedback, operational amplifiers. Prerequisite: ELEC 354.

ELEC 400 - Topics in Electrical Engineering 2-4 hours. Special topics in electrical engineering which vary from year to year. Prerequisite: Permission of instructor. (Sufficient demand)

ELEC 410 - Computer Architecture 3 hours. The main objectives of this course are gaining familiarity with fundamentals of architecture and learning how to apply cost-performance. Topics include instruction set principles, advanced pipelining, multi-cycle instructions, dynamic scheduling, instruction-level parallelism, and high-performance memory hierarchies. Different computer design options are discussed. Students learn the issues and tradeoffs involved in the design of modern processors. In particular, pipelining and memory management/access are stressed. Prerequisite: ELEC 310.

ELEC 422 - Control Systems 3 hours. Linear feedback control system modeling analysis, and compensation techniques. Prerequisite: ELEC 322.

ELEC 424 - Digital Control Systems 3 hours. Discrete time systems and the z-transform, sampling and stability analysis techniques, digital controller design, microcomputer implementation of digital systems, quantization and round off noise analysis. Prerequisite: ELEC 422.

ELEC 431 - Wind Energy 3 hours. The primary objective of this course is to gain an elementary familiarity with wind energy. After a brief review of power and energy, wind energy is introduced. Topics of discussion include history and evolution of wind energy technology, power in the wind, wind turbines, components and operation of typical wind systems, small scale hybrid energy systems, markets, demand, and resources. The course also includes a class project.

ELEC 435 - Embedded Systems 3 hours. This course covers fundamentals of embedded systems to include: hardware, software, embedded processors, logic, circuits, debugging, development tools, architecture, designs, automatic control systems, block diagrams, math descriptions.

ELEC 440 - Networking I 3 hours. This course covers topics based on Cisco Networking Academy CCNA1 and CCNA2 Exploration courses. This includes the open systems interconnection (OSI) model, IP addressing and subnetting, Ethernet, the Cisco Eagle server, basic router configuration, static routing, and dynamic routing protocols RIP, EIGRP, and OSPF. Prerequisite: permission of instructor. (Cross-listed as MIS 440)

ELEC 442 - Applied Electromagnetism 3 hours. Complex vectors, Maxwell's equations, uniform plane waves, reflection and transmission of waves, waveguides and resonators, transmission lines, antennas, special topics in waves, electrostatic fields, electric force and energy, special techniques to solve electromagnetic equations, direct currents, magnetostatic fields, magnetic circuits, electroquasistatic fields, magnetoquasistatic fields, examples of applications. Prerequisites: PHYS 126, MATH 271.

ELEC 443 - Networking II 3 hours. This course covers topics based on Cisco Networking Academy CCNA3 and CCNA4 Exploration courses. This includes LAN switching, VLANs, inter-VLAN routing, basic wireless concept and configuration, wide area networks (WANs), PPP, frame relay, network security, and ACLs. Prerequisite: permission of instructor. (Cross-listed as MIS 443)

ELEC 444 - Optical Fiber Communication Systems 3 hours. Basic optical fiber communication components including optical fibers, optical transmitters, and optical receivers; basic concept of analog and digital signals, channel multiplexing, and modulation; geometrical-optics description, wave propagation, dispersion, and fiber loss; system design and performance.

ELEC 452 - Superconducting Electronics 3 hours. Metals, alloys and ceramics in the superconducting state: London, Ginzburg-Landau and BCS theories; High Tc superconductor theories such as Anderson's RVB model, types I and II, and high Tc superconductors. Applications in power generation and transmission, computers, magnetic field control systems, Josephson junctions, SQUID. Prerequisite: PHYS 126.

ELEC 468 - Electric Machinery 3 hours. Magnetic theory and circuits, balanced polyphase circuits, and fundamentals of electromechanical energy conversion. Phasors, per-unit notation, transformers, three-phase and single-phase induction motors, synchronous, direct current and specialized machines. Prerequisite: ELEC 220.

ELEC 472 - Image Processing 3 hours. An introductory course containing both optical and digital image processing. Contents include: partial coherence and optical transform, optical signal processing, spatial light modulators and detectors, image plane, impulse functions, fourier transform, convolution, restoration, projection-slice, tomography, compression, basics of pattern recognition. Prerequisites: PHYS 126, MATH 271.

ELEC 484 - Analog VLSI Design 3 hours. An introduction to the analog component of integrated circuit design. Transistor circuits, current sources and mirrors, differential operational amplifiers, comparators. Switched capacitor techniques. Analog-to-digital/digital-to-analog conversion, analog signal processing. Prerequisite: ELEC 354.

ELEC 486 - VLSI Design 3 hours. Design of VLSI circuits concentrating on CMOS technologies. Logic design, fabrication principles, CAD layout and introduction to VLSI systems architecture. Structured design emphasis will be with the concept of hierarchy. Design methodology will focus on design of VLSI subsystems using advanced hierarchical design tools including Verilog HDL. This will be in the form of class homework and short projects. Prerequisite: ELEC 210.

ELEC 487 - Laser Theory and Applications 3 hours. Wave mechanics, atom-field interaction, simulated emission and dipole oscillators. Semiclassical laser theory, multimode operation, gas laser theory, ring laser, Zeeman laser. Application of YAG and Excimer lasers. Prerequisite: PHYS 126, MATH 271.

ELEC 490 - Engineering Design Methods 2 hours. The purpose of design is to convert resources into devices, systems. processes and products to meet human needs. Detailed analysis and application of the design problem solving process from problem identification to implementation. Value engineering and other innovation processes are introduced. Prerequisite: Senior standing.

ELEC 496 - Senior Design Project 4 hours. Individual design project with a faculty advisor. Conception, design, construction and testing of an original project. Complete report required. Prerequisite: ELEC 490.

Engineering

ENGR 111 - Explorations in Biomaterials 1 hour. An "Engineering Exploration" course focusing on biomaterials. This hands-on laboratory course covers data collection, analysis and reporting. First-year engineering students enroll in two different "Engineering Exploration" courses.

ENGR 112 - Explorations in Ceramic Engineering 1 hour. An "Engineering Exploration" course focusing on ceramic engineering. This hands-on laboratory course covers data collection, analysis and reporting. First-year engineering students enroll in two different "Engineering Exploration" courses.

ENGR 113 - Explorations in Electrical Engineering 1 hour. An "Engineering Exploration" course focusing on electrical engineering. This hands-on laboratory course covers data collection, analysis and reporting. First-year engineering students enroll in two different "Engineering Exploration" courses.

ENGR 114 - Explorations in Glass Engineering 1 hour. An 'Engineering Exploration" course focusing on glass science and engineering. This hands-on laboratory course covers data collection, analysis and reporting. First-year engineering students enroll in two different "Engineering Exploration" courses.

ENGR 115 - Explorations in Materials Science and Engineering 1 hour. An "Engineering Exploration" course focusing on materials science and engineering. This hands-on laboratory course covers data collection, analysis and reporting. First-year engineering students enroll in two different "Engineering Exploration" courses.

ENGR 116 - Explorations in Mechanical Engineering 1 hour. An "Engineering Exploration" course focusing on mechanical engineering. This hands-on laboratory course covers data collection, analysis and reporting. First-year engineering students enroll in two different "Engineering Exploration" courses.

ENGR 208 - Energy in the World 2 hours. This non-technical energy course provides a basis for students to be engaged participants in the contemporary energy discussion. The disparate types of distributions of energy resources are examined as significant drivers in diplomacy, politics, and economics. The environmental effects of energy sources are complex, but are a central topic of the 21st century. Students learn why various nations have chosen, often been pushed, towards various energy responses, and gain an awareness of the complexity and global variability of issues. Counts toward the Humanities/Social Sciences requirement. (GP)

ENGR 401 - Sources of Renewable Energy 3 hours. The main objective of this course is to gain an elementary familiarity with renewable forms of energy. The course addresses three distinct areas: power and energy, generating power from renewable sources of energy, and the economics and markets of energy, in particular generation and distribution. Topics of discussion include the nature and physics of power and energy, different sources of energy, renewable sources of energy, in particular wind, solar and hydro, sustainability, depletion model, as well as demand and resources. Prerequisites: PHYS 125 and 126.

Mechanical Engineering

MECH 211 - Statics 3 hours. Two and three-dimensional force systems, the concept of equilibrium, analysis of trusses and frames, centroids, bending moment and shear diagrams, friction. Prerequisites: PHYS 125, MATH 152.

MECH 212 - Dynamics 3 hours. Rectilinear and curvilinear motion, translation and rotation, momentum and impulse principles, and work-energy relationships. Prerequisites: PHYS 125, MATH 253.

MECH 241 - Mechanics of Materials 3 hours. The mechanics of solid deformable bodies, members subjected to tension, compression, flexure and torsion. Beam topics, stability of columns, combined stresses and strains. Prerequisite: MECH 211.

MECH 320 - Thermodynamics I 3 hours. Thermodynamic properties of gases, vapors and liquids. Laws of thermodynamics, energy and availability analysis. Prerequisites: MATH 253, PHYS 125.

MECH 321 - Thermodynamics II 3 hours. Applications of thermodynamic principles to the analysis of energy systems including power and refrigeration cycles. Mixtures and solutions, chemical reactions and equilibrium. Prerequisite: MECH 320.

MECH 324 - Fluid Mechanics I 3 hours. Principles of mechanics and thermodynamics applied to fluids at rest or in motion. Compressible and incompressible flow, viscous and non-viscous flows, boundary layers, pipe flow, dimensional analysis. Prerequisites: MECH 212, MATH 253.

MECH 326 - Heat Transfer 3 hours. Principles of steady-state and transient conduction, radiation and convection. Applications to heat exchangers and environmental problems. Prerequisites: MECH 320, 324.

MECH 327 - Thermal Sciences Laboratory 2 hours. Experiments are conducted to illustrate aspects of fluid mechanics, thermodynamics, and heat transfer. Concurrent Registration: MECH 321 and 326. Prerequisites: MECH 320, 324 or CEMS 235, 332.

MECH 343 - Mechanics of Materials Laboratory 2 hours. Experiments designed to illustrate the principles of mechanics of materials and the methods of experimental mechanics. Prerequisites: MECH 211, MECH 241, MATH 271.

MECH 362 - Kinematics and Dynamics of Machinery 3 hours. Analysis and synthesis of mechanisms. Applications to reciprocating engines, cams, gears, flywheels, balancing, critical speeds, torsional vibration. Prerequisite: MECH 212.

MECH 364 - Machine Design I 3 hours. Analysis, synthesis and design of machine elements and systems. Development of engineering judgment, stress and failure analysis, design for finite and infinite life. Corrosion, wear, lubrication, springs, and bolts. Prerequisites: (MECH 241 or CEMS 251), MECH 362.

MECH 366 - Manufacturing 3 hours. Analysis of manufacturing processes. Topics include casting, forging, extrusion, drawing, sheet-metal working, machining, powder metallurgy, fabrication of non-metals, joining, and many others. Plant tours are a required part of the course. Prerequisite: MECH 244 or CEMS 214. Pre- or Co-requisites: MECH 364 and ENGR 305.

MECH 400 - Topics in Mechanical Engineering 2-4 hours. Special topics in mechanical engineering which vary from year to year. Prerequisite: Permission of instructor. (Sufficient demand)

MECH 414 - Continuum Mechanics 3 hours. Vectors and tensors, analysis of stress and deformation. Velocity fields and compatibility conditions, constitutive equations, mechanical properties of fluids and solids. Derivation of field equations and boundary conditions for fluids and solids. Prerequisites: MECH 241, MECH 324, MATH 271.

MECH 415 - Mechanical Vibrations I 3 hours. Harmonic oscillator; response of damped linear systems; multi-degree of freedom systems; introduction to vibrations of continuous systems. Prerequisites: MATH 271.

MECH 416 - Mechanical Vibrations II 3 hours. A continuation of MECH 415 focusing on multi-degree of freedom and continuous systems as well as advanced dynamics concepts such as Hamilton's Principle, Variational Calculus, and Lagrange's equation. Computer solution techniques are emphasized via solutions to the eigenvalue problems and finite element method. Prerequisites: MECH 212, 415, MATH 271.

MECH 417 - Introduction to Finite Element Analysis 3 hours. Use of the finite element method to solve problems in the areas of stress analysis, heat conduction. and fluid flow. Weighted residual and variational approaches, shape functions, numerical integration, and the patch test. Prerequisites: (CEMS 251 or MECH 241), MATH 271.

MECH 418 - Finite Element Analysis II 3 hours. This is an advanced course for finite element analysis. The goal is to train students with a more solid foundation and effective skill for numerical simulation to solve engineering problems. Contents include: numerical algorithms such as the Newton-Raphson method and simulation of material and geometric nonlinearlity. Special topics may include FE modeling at small scales, micromechanics, plasticity, viscoplasticity and wear.

MECH 424 - Fluid Mechanics II 3 hours. Advanced topics in fluid mechanics: compressible flows, boundary layers, potential flow, turbomachinery. Prerequisites: MECH 320, 324, MATH 271.

MECH 432 - Combustion Engineering 3 hours. Combustion processes, combustion thermodynamics, and reaction kinetics. Flame ignition and stability limits. Detonation and deflagration waves. Gas phase reactions and solid particle fuel combustion (coal and wastes). Applications to furnaces, incinerators, gasifiers, gas turbines and engines. Prerequisites: MECH 320, 326, and 324.

MECH 434 - Heating, Ventilation, and Air Conditioning 3 hours. Applied engineering thermodynamics; psychometrics; humidification and dehumidification processes; air cooling processes, heating processes; heat vapor transmission, fluid flow and pressure losses; air conveying and distribution. Prerequisite: MECH 321, (MECH 326 or CEMS 332).

MECH 448 - Mechanics of Composite Materials 3 hours. An introduction to composite materials with an emphasis on their selection, analysis, and use in modern engineering applications. Advantages and limitations of composite materials, basic concepts and characteristics. Stiffness and strength theories for uniaxial and multidirectional composite materials, with a macromechanical emphasis. Prerequisites: MECH 241, MECH 244 or CEMS 214, MATH 271.

MECH 452 - Fatigue and Fracture Mechanics 3 hours. This course is an introduction to linear elastic fracture mechanics and calculation of stress intensity factors. Concepts of fracture, fracture toughness, fracture resistance are covered, along with fatigue crack nucleation, crack growth, high and low cycle fatigue, temperature effects, and predictive equations. Prerequisites: (MECH 241 or CEMS 251), MATH 271.

MECH 454 - Multiscale Analysis for Deformation and Failure 3 hours. The goal of this course is to develop tools for students to analyze deformation and failure of engineering materials from multiscale points of view. By developing knowledge of micromechanics, meso-mechanics and macro-mechanics students will have a foundation to develop more understanding and useful skill for analysis of elasticity, inelasticity, fracture and fatigue of engineering materials. Prerequisites: (MECH 241 or CEMS 251) MATH 271.

MECH 464 - Machine Design II 3 hours. Analysis, synthesis and design of machine elements and systems. Design of specific machine elements will be covered, including shafts, fasteners, springs, bearings, gears, clutches, brakes and flexible mechanical elements. Prerequisite: MECH 364.

MECH 486 - Modeling and Simulation of Dynamic Systems 3 hours. Mathematical modeling of physical systems and simulation of linear system responses. System response to varied inputs are studied using classical techniques. Laplace transforms and modeling and simulation software. Prerequisites: (MECH 326 or CEMS 332) and (ELEC 220 or CEMS 221).

MECH 495 - Senior Design Project I 3 hours. Individual and group comprehensive design projects employing basic and professional approaches to planning, organizing, judgmental and economic factors. Integrative aspects of creative design and analysis, interdisciplinary systems. Emphasis on technical communication skills. Prerequisite: Senior standing and permission of instructor.

MECH 496 - Senior Design Project II 3 hours. Continuation of MECH 495 and culmination in a comprehensive design report and developmental prototype, as required. Prerequisite: MECH 495.

Accounting

ACCT 211 - Financial Accounting 3 hours. Introduces financial reports and the underlying concepts and processes. Financial reports are a major way in which a business enterprise communicates its activities and their results to owners, government authorities and the general public. Prerequisite: sophomore or higher class standing.

ACCT 212 - Managerial Accounting 3 hours. Internal accounting reports are used by management to assess results, plan further operations and make decisions as to capital projects, product lines, and pricing. Illustrates the use of such interpretive techniques as cost-volume-profit analysis, variance analysis, cash forecasting, and rate of return to develop managerial decisions based on accounting data. Prerequisite: ACCT 211.

ACCT 361 - Financial Accounting II 3 hours. A transitional course in theory of financial accounting with heavy emphasis on the proper presentation of accounting information for external reporting purposes. Prerequisites: ACCT 211, junior standing.

ACCT 362 - Financial Accounting III 3 hours. An advanced course in theory of financial accounting. Special topics include: pensions-service cost, interest on liability, actual vs. expected return on plan assets, prior service cost amortization, unexpected gains and losses on plan assets, corridor amortization, minimum liability computation; leases-bargain purchase options and residual value considerations, direct financing and sales type leases, initial direct costs, sale-leaseback; earnings per share-for the complex capital structure-basic, primary and fully diluted EPS, materiality and anti-dilution, common stock Equivalents, modified treasury stock method, effective yield test; income tax accounting-deferred taxes, deferred tax liability, deferred tax asset and the valuation account, revision of future tax rates. Prerequisite: ACCT 361.

ACCT 371 - Personal Income Tax 3 hours. Income taxes, payroll taxes and estate and gift taxes. The importance of income taxation relating to business decisions and the need for tax research and planning emphasized. Preparation of individual, partnership, and corporate returns with detailed analysis of the underlying tax concepts. The burdens and benefits of social security taxes and unemployment taxes. The tax aspects of family estate planning. Prerequisites: ACCT 211, junior standing.

ACCT 372 - Cost Accounting 3 hours. Analysis of cost behavior, cost-profit volume analysis, budgeting, job order and process cost systems, standard costs and cost control. Quantitative methods and behavioral developments are applied to cost accounting data. The objective is improvement of the quality of the cost information provided for managerial decision making. Prerequisites: ACCT 212, ECON 201, junior standing.

ACCT 441 - Auditing Theory and Practice 3 hours. Current auditing practices and objectives of independent accounting firms examined in detail. Particular emphasis placed on auditing theory and procedures and the ethical and legal responsibilities of auditing. Prerequisite: ACCT 362 either previously or concurrently.

ACCT 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

ACCT 451 - Financial Reporting and Analysis 3 hours. A course covering a variety of complex topics in financial reporting. These include accounting for income taxes, employee compensation, disclosures, earnings per share, accounting changes, and statement analysis. Prerequisite: ACCT 362.

ACCT 460 - Seminar in Accountancy 3 hours. Details major issues in the field of accountancy with primary topics changing from semester to semester. May include taxes, financial accounting theory, managerial accounting theory, C.M.A. and C.P.A. problems, or international accounting problems. Primary resource material: library research and outside readings which are used as the basis for seminar presentation. Prerequisite: 6 hours of accounting. May be taken more than once for credit.

ACCT 462 - Applications of Advanced Accounting Principles 3 hours. An advanced course in the theory of financial accounting with heavy emphasis on special problem areas in accounting such as partnership accounting, home office and branch accounting, mergers and acquisitions, consolidated statements, bankruptcy, estates and trusts, fund accounting and international accounting problems. The current pronouncement of the major authoritative bodies reviewed and illustrated. Prerequisite: ACCT 362.

Business

BUSI 100/300 - Special Topics in Business 1-3 hours. Topics not covered in other Business courses are presented.

BUSI 105 - Business Perspectives 1 hour. This course is a survey of business concepts, principles, techniques and theories. The goal of the course is to expose students to the need for a high level of awareness of the business function interactions a decision maker faces in a competitive information-driven world. Topics covered include, but are not limited to, the following: global business environment, marketing, production operations, information technology, and innovation management.

BUSI 113 - Business Statistics 3 hours. The elements of basic statistical theory and technique are introduced with an emphasis on applications to business situations. Computer-based software packages complement these objectives.

BUSI 205 - Student Managed Investment Fund 1 hour. A lecture course designed to introduce the student to topics that will facilitate the student's ability to participate in the management of the Student Managed Investment Fund. Topics to be covered in lecture course include but are not limited to the following: History of Equity Ownership; Debt and Equity Securities; Ratio Analysis; Risk and Return (beta and portfolio analysis), Financial Publications, Research Tools and Databases, Analysis of Financial Statements, Stock and Bond Valuation Techniques; Financial Markets and Stock Screening. Prerequisite: at least Sophomore standing or permission of instructor.

BUSI 206 - Student Managed Investment Fund Laboratory 1 hour. Students will gain practical experience in managing a stock portfolio by engaging in the trading of stocks under the supervision of faculty. The laboratory is worth one credit and shall be graded pass/fail. May be repeated for credit to a maximum of five credits. In combination with BUSI 205, three credits will satisfy the field experience requirement for College of Business majors. Prerequisite: at least Sophomore standing or permission of instructor.

BUSI 261 - Operations Research 3 hours. Scientific approach to the analysis and solution of economic and business problems to provide a quantitative basis for model building and decision making. Mathematics is applied to business decision making through techniques such as linear programming, queuing theory, network models, Markov analysis, etc. Prerequisites: MATH 107 and BUSI 113; ECON 201 either previously or concurrently.

BUSI 301 - Family Business Management 3 hours. This course explores the unique issues that a family business encounters from its initial founding through its generational development and to its ultimate success or demise. Family businesses that prosper generation to generation pursue unconventional strategies. Because they are values-driven and think very long-term, it is theorized that successful family businesses take approaches not commonly found in the current management practices at most companies. Issues addressed include: family firm performance, family business culture, challenge of succession, conflict and harmony, business vs. family communication, family constitution, and corporate vs. family business governance.

BUSI 400 - Seminar in Business 3 hours. A seminar that focuses on special topics in the field of management and business administration. Topics vary from one semester to another. May be repeated for credit.

BUSI 439 - Entrepreneurship in the 21st Century 3 hours. The primary objectives of this course are twofold: 1) provide students with an introduction to the theoretical and practical aspects of entrepreneurship and small business development, and 2) identify, probe and gain insights into the role family based business plays in socio-economic development and private enterprise.

BUSI 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

BUSI 457 - International Business 3 hours. The volume, composition, and pattern of worldwide trade; the significance of international trade to the American economy. An introductory description of the international payments mechanism, an elementary analysis of the balance of payments, and a survey of U.S. continental policies, the role, impact and structure of the multinational enterprise and the government policies towards it, firms, marketing, accounting and management responses to the international environments. Prerequisite: Junior standing. (GP)

BUSI 485 - Internship 1-4 hours. Faculty-supervised experience in which the student applies theoretical knowledge in practical situations. Each student submits a paper outlining the experience and is responsible for procuring an on-site supervisor's evaluation of his/her work. A minimum of 80 hours of practical experience is required for each credit. A maximum of four (4) internship credits can be included in the 120 academic credits required for graduation.

BUSI 499 - Policy Formulation and Administration 3 hours. An integrating course approaching the fields of policy making and strategy from the point-of-view of top management. The course also covers the new tools and emerging concepts in the policy area. By means of the case study approach, the student is taught to develop the habit of solving strategic management problems from a systemic perspective. Prerequisites: MGMT 328, FIN 348, MKTG 221; Senior standing.

Economics

ECON 100/300 - Topics in Economics 1-4 hours. Topics not covered in other Economics courses are presented.

ECON 201 - Introduction to Economics and Markets 4 hours. Introduction to the principles of microeconomics and a survey of contemporary economic issues. Includes study of market systems and structures, government regulation of business, labor markets and income distribution, strategic behavior, and market failure. Prerequisite: sophomore standing. (E)

ECON 202 - Principles of Macroeconomics 3 hours. Study of the factors involved in the problems of unemployment, inflation, economic growth, and the role of fiscal and monetary policies. Includes coverage of the money and banking system and international trade.

ECON 312 - Environmental Economics 3 hours. (see ENVS 312)

ECON 331 - Money and Banking 3 hours. The principles and organization of the monetary and banking system and importance of the money supply. The structure of the banking system and the techniques used by the Federal Reserve are covered, along with monetary theory, other factors affecting income, employment and inflation, the controversies surrounding the use of monetary and fiscal policies and the international dimensions of the issues. Prerequisites: ECON 201/202, junior standing.

ECON 400 - Seminar in Economics 3 hours. An introduction to current work in economics. The focus is on particular topics of special interest within the discipline. Students are responsible for presenting, discussing, and writing about ideas expressed in the professional literature. Prerequisite: One course in Economics numbered 300 or above.

ECON 412 - International Economics 3 hours. An introduction to the workings of the world economic system and the interactions among different countries. It consists of three parts: Trade, which asks how and why different countries engage in the process of exchanging goods and services and the consequences of such interactions on the country itself and on others; International financial and monetary system, which looks at a country's balance of payments account, exchange rate determination, and open macroeconomic analysis and policy; International development, which surveys experiences of developing countries, including their relationship with developed countries. Builds upon students' earlier knowledge of economic models and analytical tools, tailoring them to analyzing developments in the world economy, and using them to judge the soundness and/or appropriateness of government actions. Prerequisites: ECON 201/202, junior standing. (GP)

ECON 445 - Managerial Economics 3 hours. Emphasizes the application of fundamental theoretical and analytical tools of economics useful in managerial decision making. Empirical studies and cases involving actual managerial situations at the levels of industry and firms are examined. Prerequisite: FIN 348 or permission of instructor. (Cross-listed as FIN 445)

ECON 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

ECON 462 - Industrial Organization 3 hours. In this course, the theory of the firm is extended using the structure-conduct-performance paradigm and more recent theories of industrial organization. An important portion of the course is allocated to presentation of factual and institutional material on market structure, firm conduct, industry performance, and antitrust policy. Prerequisites: ECON 201/202 and junior standing.

Finance

FIN 348 - Managerial Finance 3 hours. An introductory course explaining the tools and the new responsibilities modern financial managers deal with in a rapidly changing world environment characterized by uncertainty. The course identifies and examines the financing needs of the firm, its cost of capital, and assets and liabilities management using modern decision support systems for the application of new financial innovations, such as contingent claims and securitization of assets. Prerequisites: ACCT 211/212, ECON 201/202.

FIN 410 - Introduction to Financial Planning 3 hours. Introduction to the concepts of estate and financial planning. Provides the student with a firm grounding in the basic lifetime financial planning process along with an overview of the tax advantages of proper estate planning.

FIN 445 - Managerial Economics 3 hours. (see ECON 445)

FIN 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

FIN 453 - Financial Markets and Institutions 3 hours. Surveys the dynamic roles played by financial intermediaries in transforming traditional financial institutions to a modern financial services industry responding to new institutions and individual investors in channeling savings and investments. The course focuses on the role played by non-bank financial institutions, the structure of interest rates, the flows of loanable funds and the measurement and management of risk in a regulated and deregulated financial system, using financial instruments such as SWAPS and asset securitization. Prerequisite: FIN 331 or permission of instructor.

FIN 454 - Security Analysis 3 hours. Provides a comprehensive introduction to the application of the techniques of security analysis and portfolio management. Relates economic-industry-company analysis to evaluate individual securities: bonds, preferred stocks, common stocks, and options. Considers the procedures involved in the selection of securities portfolio along the concept of risk-return tradeoffs. Prerequisite: FIN 348.

FIN 455 - Business Financial Decisions 3 hours. Examines the question of how financial resources available to the firm should be allocated to many possible investment projects. Emphasizes developing analytical techniques which make it possible to answer questions such as: Should a new plant be built? Equipment replaced? Bonds refunded? A new product introduced? Should a merger or divestment take place? Prerequisites: FIN 348 and BUSI 261.

FIN 458 - International Financial Management 3 hours. Emphasizes the practical relevance of the microelements of international finance which influence the profit and loss accounts and balance sheets of corporations with overseas operations.

Factors such as the impact of exchange rate fluctuations, major alternative non-traditional sources of financing and regional investment decisions, imperfections in world product, factor and financial markets along with country risk-return profiles are examined. Prerequisite: FIN 348 or permission of instructor. (GP)

FIN 460 - Seminar in Finance 3 hours. Examines financial theory both at the macro and micro-levels and attempts to develop the interdependency between security analysis and the cost of funds to the firm with emphasis on capital structure and dividend policies and portfolio analysis. Prerequisites: FIN 454/455 and permission of instructor.

Law

LAW 241 - The Legal Environment of Business 3 hours. An introduction to the body of law associated with the business environment. Topics include the judicial system and court procedure, business torts and crimes, contracts, bailments, forms of business structure, bankruptcy, an overview of securities regulations and the antitrust laws and consumer protection statutes.

LAW 442 - Commercial Law 3 hours. An overview of the common law principles and statutory law affecting commercial transactions. Topics include agency, partnerships, corporations, commercial paper and sales. Prerequisites: LAW 241, junior standing.

Management

MGMT 328 - Management and Organizational Behavior 3 hours. This course builds an understanding of individual and group behavior within organizations, the means of assessing such organizational behavior and specific techniques for managing behavior toward improved performance. The goal for the course is for students to develop skills grounded in behavioral science that are essential for assuming a leadership position in organizational environments. Prerequisite: Junior standing.

MGMT 400 - Seminar in Management 3 hours. Seminar in management considers major issues in the management field in detail. These issues change from year to year. Examples of topics include corporate culture, creativity, computer based simulations, total quality management, managing strategic change, and human capital development. Prerequisite: MGMT 328. May be repeated for credit.

MGMT 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

MGMT 472 - Human Resource Management 3 hours. Examines the contribution that a properly functioning personnel department makes to the effectiveness of a business. Covers internal organization and workings of the personnel department, its relationship to the rest of the enterprise, major problem areas, and the legal environment defining the employer-employee relationship. Prerequisite: MGMT 328.

MGMT 484 - Operations Management 3 hours. Introduces students to functions, problems, and techniques associated with management of production operations in manufacturing firms and service organizations. The problem oriented approach focuses on analytical techniques so students learn to recognize problems arising in operations management areas and to apply analytic techniques meaningfully.

Topics include plant location, plant layout and design, inventory control, quality control, production planning and control (including PERT), production scheduling, queuing, mathematical programming, simulation, and forecasting. Prerequisites: BUSI 113, BUSI 261, ACCT 212, MGMT 328.

Management Information Systems

MIS 101 - Computer Applications for Business 3 hours. This course helps students develop a sense of business systems, methods and issues. It is designed to raise sensibilities about the business environment, ethics, and decision making. It also acknowledges the importance of fundamental computer concepts for business, covering spreadsheet, database, presentation software, as well as website design.

MIS 190 - Introduction to Management Information Systems 3 hours. This first course in information theory covers the subjects of computer hardware and software, the system development process, principles of data management and modern computer-based information systems. Emphasis is placed on business problem analysis and determining how automation can contribute to satisfying business needs. Development of computer-based business applications. Prerequisite: MIS 101 or equivalent.

MIS 290 - Computer Programming 3 hours. An introduction to the fundamentals of computer programming. The course is offered using Visual Basic and Java in alternate years, and may be repeated once for credit. Topics covered include programming concepts, program design and development, debugging and testing.

MIS 400 - Seminar in Information Theory 3 hours. Seminar course serving as a capstone for the information theory emphasis. The course emphasizes information theory as related to planning, organizing and controlling information systems in the business environment. Prior seminar topics include Neural Networks, Expert Systems, Artificial Intelligence, and Web Development. Prerequisite: MIS 190 or permission of instructor.

MIS 440 - Inter-Networking Fundamentals 3 hours. This course covers topics based on Cisco Networking Academy CCNA1 and CCNA2 Exploration courses. This includes the open systems interconnection (OSI) model, IP addressing and subnetting, Ethernet, the Cisco Eagle server, basic router configuration, static routing, and dynamic routing protocols RIP, EIGRP, and OSPF. Prerequisite: permission of instructor. (Cross-listed as ELEC 440)

MIS 443 - Networking II 3 hours. This course covers topics based on Cisco Networking Academy CCNA3 and CCNA4 Exploration courses. This includes LAN switching, VLANs, inter-VLAN routing, basic wireless concept and configuration, wide area networks (WANs), PPP, frame relay, network security, and ACLs. Prerequisite: permission of instructor. (Cross-listed as ELEC 443)

MIS 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/ classroom setting. Approved Plan of Study required.

MIS 465 - Data Base Management Systems 3 hours. Providing a comprehensive coverage of organizational data base systems, this course is structured around the data base development life cycle which provides the framework for conceptual data base design, for data base implementation, and for the management of data base systems.

Using a strategic and tactical management framework, issues covered include data base planning, data base management system selection, data base administration, security and integrity, and distributed data bases. Prerequisite: MIS 190 or permission of instructor.

MIS 466 - System Analysis and Design 3 hours. Information system development beginning with a study of the decision making process and the levels of decision making to provide a framework for the information system. Emphasis is on information analysis and logical system design. Topics covered include information need analysis and information systems development methodology. Prototyping and development software are addressed and used. Prerequisite: MIS 190 or permission of instructor.

Marketing

MKTG 221 - Marketing Principles and Management 3 hours. A survey of marketing concepts, principles, techniques and theories. Emphasizes the development and implementation of an effective marketing strategy, and control of the marketing function within the firm. The role of marketing in society and the efficient distribution of goods and services are addressed. Prerequisite: Sophomore standing.

MKTG 400 - Seminar in Marketing 3 hours. Intensive investigation of marketing techniques, theories and issues. Students are required to investigate specific topics, make class presentations and submit reports. Prerequisites: MKTG 221 and senior standing.

MKTG 450 - Independent Study 1-4 hours. Academic inquiry into an area not covered in any established course, and carried on outside the usual instructor/classroom setting. Approved Plan of Study required.

MKTG 452 - Market Research 3 hours. Emphasizes planning, organization and application of marketing research in making marketing decisions. Topics include: marketing information systems, research design, data collection and analysis, and evaluating research results. Emphasis given to sampling methods, hypothesis testing, market measurement and forecasting, use of models in marketing, decision making techniques, and behavioral research methodologies. Cases are used as part of the course. Prerequisite: MKTG 221.

MKTG 453 - Marketing Practicum 3 hours.

MKTG 479 - Consumer Behavior 3 hours. Deals with changing markets and the influence of environmental and interpersonal factors on consumer behavior. Integrates concepts, theories and tools from social science and quantitative disciplines to provide a framework of understanding consumers and forecasting market demand. Different strategies and techniques of consumer research are presented and evaluated. Prerequisite: MKTG 221.

MKTG 482 - Sales Management 3 hours. Concerned with the management of the personal selling function, this course uses theories and tools of behavioral sciences for developing an effective sales force through recruiting, selection, training, compensating and evaluation of sales performance. Emphasizes sales forecasting, establishment of sales quotas, and sales analysis. Prerequisite: MKTG 221.

MKTG 486 - Promotion Strategy 3 hours. Investigates current theory and methods of promotion. The major elements of the promotional mix are analyzed in detail with emphasis on using pertinent decision theory models when allocating scarce resources to the defined elements of the total promotional mix. Prerequisite: MKTG 221.

MKTG 489 - International Marketing 3 hours. Emphasizes marketing management problems, techniques and strategies in the global marketing environment and the culture dynamics involved in international marketing. Strategies are developed for product, price, promotion and distribution functions given the complex international legal environment and consumer customs in foreign business. Prerequisite: MKTG 221. (GP)

MKTG 499 - Strategic Marketing Management 3 hours. This capstone course offers students the opportunity to focus their experience and knowledge of marketing on an aggressively competitive environment. The course will explore ways in which corporate strategy can be executed by marshalling marketing-oriented resources, and directing them to the achievement of marketing goals.

Reserve Officers Training Corps Military Science Program

Seneca Battalion - (Courses offered at St. Bonaventure University)

MS 101 - Foundations of Officership 2 hours. (Course and Lab) The purpose of this semester is to introduce cadets to fundamental components of service as an officer in the United States Army. These initial lessons form the building blocks of progressive lessons in values, fitness, leadership, and officerships. Additionally, the semester addresses "life skills" including fitness, communications theory and practice (written and oral), and interpersonal relationships. (Fall)

MS 102 - Basic Leadership 2 hours. (Course and Lab) This course builds upon the fundamentals introduced in the previous semester by focusing on leadership theory and decision-making. "Life skills" lessons in this semester include: problem solving, critical thinking, leadership theory, followership, group interaction, goal setting and feedback mechanisms. (Spring)

MS 201 - Individual Leadership Studies 2 hours. (Course and Lab) Building upon the fundamentals introduced in the first year, this instruction delves into several aspects of communication and leadership theory. The use of practical exercise is significantly increased and cadets are increasingly required to apply communications and leadership concepts. Virtually the entire semester teaches critical "life skills." The relevance of these life skills to future success in the Army is emphasized throughout the course. (Fall)

MS 202 - Leadership and Teamwork 2 hours. (Course and Lab) The final semester of the Basic 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 our institutional values and their practical application in decision-making and leadership. (Spring)

MS 301 - Leadership and Problem Solving 2 hours. (Course and Lab) The MSL 300 level curriculum is intended to build leadership competencies and facilitate the cadet's initial demonstration of individual leadership potential at LDAC, while also preparing cadets for their future responsibilities as officers. The 300 level instruction uses small unit infantry tactics as the context for the development and assessment of leadership.

While a measure of technical and tactical understanding of small unit operations is necessary, the focus of instruction is on the leadership competencies. (Fall)

MS 302 - Leadership and Ethics 2 hours. (Course and Lab) The final semester of the third year continues focusing on doctrinal leadership and tactical operations at the small-unit level. This critical semester synthesizes the various components of training, leadership, and team building. The MS 302 curriculum complements progression through the cadet's campus evaluation process and in the culminating event of the MSL III year in the field training environment of the Leaders Development Assessment Course (LDAC). (Spring)

MS 401 - Leadership and Management 2 hours. (Course and Lab) This semester of the Advanced Course concentrates on leadership, management, and ethics, and begins the final transition from cadet to lieutenant. The course focuses cadets, 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. Fall.

MS 402 – Officership 2 hours. (Course and Lab) The final semester focuses on completing the transition from cadet to lieutenant. The course starts with a foundation in the legal aspects of decision-making and leadership. Following modules reinforce the organization of the Army and introduce how the Army organizes for operations from the tactical to strategic level. Instruction on administrative and logistical management focuses on the fundamentals of soldier and unit level support. The final module focuses on the process of changing duty stations and reporting to a new unit. The Capstone Exercise requires the cadets, both individually and collectively, to apply their knowledge to solve problems and confront situations commonly faced by junior officers. (Spring)

Summary of Registered Academic Programs

The following programs of study (majors) are offered by Alfred University. Their Higher Education General Information System (HEGIS) codes are listed to allow cross-reference between Alfred University and other New York institutions. These numbers may be requested by state and federal offices when filing for loans and awards.

Note: Enrollment in other than registered or otherwise approved programs may jeopardize a student's eligibility for certain student aid awards.

Major	HEGIS Code	Degree
Accounting	0502	BS
Art History and Theory	1003	BS
Art K-12 Teacher	0831	BFA
Athletic Training	1299.30	BS
Biology	0401	BA
Biomedical Materials Engineering Science	0905	BS
Business Administration	0506	BS
Business Education	0838	BS
Ceramic Art	1009	BFA
Ceramic Engineering	0916	BS
Chemistry	1905	BA
Communications Studies	0601	BA
Comparative Cultures	4903	BA
Criminal Justice Studies	2105	BA
Early Childhood Ed/Childhood Ed	0802	BA
Electrical Engineering	0909	BS
English	1501	BA
Environmental Studies	0420	BA
Finance	0504	BS
French	1102	BA
General Science	4902	BA
Geology	1914	BA
German	1103	BA
Gerontology	2299.10	BA
Global Studies	2210	BA
Glass Engineering Science	0916	BS
History	2205	BA
Individually Structured Major	4901	BA
Interdepartmental Major	4901	BA
Interdisciplinary Art	1001	BA
Marketing	0509	BS
Materials Science and Engineering	0915	BS
Mathematics	1701	BA
Mechanical Engineering	0910	BS
Middle Child Ed/Adolesc Ed-Earth Sci	1917.01	BA
Middle Child Ed/Adolesc Ed-Social Studies	2201.01	BA
Middle Child Ed/Adolesc Ed-Biology	0401.01	BA
Middle Child Ed/Adolesc Ed-Chemistry	1905.01	BA
Middle Child Ed/Adolesc Ed-English	1501.01	BA
Middle Child Ed/Adolesc Ed-French	1102.01	BA

Middle Child Ed/Adolesc Ed-Math	1701.01	BA
Middle Child Ed/Adolesc Ed-Physics	1902.01	BA
Middle Child Ed/Adolesc Ed-Spanish	1105.01	BA
Philosophy	1509	BA
Physics	1902	BA
Political Science	2207	BA
Psychology	2001	BA
Sociology	2208	BA
Spanish	1105	BA
Special Subjects: Visual Arts	1002	BFA
Theatre	1007	BA

Personnel of the University

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B.F.A., Alberta College of Art and Design; M.F.A., The Ohio State University
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WILLIAM B. CARLSON (1988)
B.Arch. Engineering; M. Engineering; Ph.D., Pennsylvania State University
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Division of School Psychology

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Libraries

Herrick Memorial Library

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Dean, AU Libraries, Director, Herrick Memorial Library; Librarian

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Scholes Library of Ceramics

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Professor of Photography and Printmaking, Emeritus

GLENN E. ZWEYGARDT
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Professor of Sculpture, Emeritus

Academic Calendars

2011-12 Academic Year

Fall Semester 2011	Day(s)	Date(s)
New Student Check-In/Move-In Day	Thu	Aug 25
Orientation for New Students	Thu-Sat	Aug 25-27
Opening Convocation	Fri	Aug 26
Residence Halls Open for Returning Students	Sat	Aug 27
Classes Begin	Mon	Aug 29
Last Day to Add courses (other than “B” Block courses), and Last Day to Drop or select P/F in "A" Block courses	Fri	Sep 2
Last Day to Drop, select Pass/Fail in a course that meets all semester	Fri	Sep 9
Family Weekend	Fri-Sun	Sep 16-18
Last Day to Withdraw from a course, cancel Pass/Fail, select or cancel Audit in "A" Block	Fri	Sep 23
Last Day to apply for Study Abroad in Spring Semester	Mon	Oct 3
Homecoming Weekend	Fri-Sun	Oct 7-9
Last Day of “A” Block	Fri	Oct 14
Mid-Term Break - no classes	Mon-Tue	Oct 17-18
Mid-Term grades and A-Block final grades due by 10a.m.	Mon	Oct 17
Classes Resume; B-Block begins	Wed	Oct 19
Last Day to Add/Drop or select P/F in "B" Block courses	Fri	Oct 21
Last Day to Withdraw from a course, cancel Pass/Fail, select or cancel Audit in a course that meets all semester	Tue	Oct 25
Advisement Week for Spring 2012 Registration	Mon-Fri	Oct 31-Nov 4
Registration for Spring Semester Begins	Mon	Nov 7
Last Day to Withdraw from a course, cancel Pass/Fail, select or cancel Audit in "B" Block	Tue	Nov 15
Thanksgiving recess begins after last class	Tue	Nov 22
Classes Resume	Mon	Nov 28
Classes End (after last class meeting)	Fri	Dec 9
Final Exams begin (grades due within 48 hours of exam or last class, if no exam)	Mon	Dec 12
Fall Semester ends after last Final Exam	Fri	Dec 16
All Final Grades for the Semester due by 10:00 a.m.	Mon	Dec 19

Spring Semester 2012		
Residence Halls open 10:00 a.m.	Sun	Jan 15
Classes Begin	Tue	Jan 17
Last Day to Add courses (other than “B” Block courses), and Last Day to Drop or select P/F in "A" Block courses	Mon	Jan 23
Last Day to Drop, select P/F in a course that meets all semester	Mon	Jan 30
Last Day to Withdraw from a course, cancel Pass/Fail, select or cancel Audit in "A" Block	Mon	Feb 13
Last Day to Apply for Study Abroad in Fall Semester	Thu	Mar 1
Last Day of "A" Block; Spring Break begins after last class	Fri	Mar 2
Mid-Term grades and A-Block final grades due by 10a.m.	Mon	Mar 5
Classes Resume; B-Block begins; Summer School Registration Begins	Mon	Mar 12
Last Day to Add/Drop or select P/F in "B" Block	Wed	Mar 14
Last Day to Withdraw from a course, cancel Pass/Fail, select or cancel Audit in a course that meets all semester	Mon	Mar 19

Advisement Week for Fall 2012 Registration	Mon-Fri	Mar 26-30
Registration for Fall Semester Begins	Mon	Apr 2
Last Day to Withdraw from a course, cancel Pass/Fail, select or cancel Audit in "B" Block	Mon	Apr 9
Honors Convocation	Fri	Apr 20
Spring Family Weekend/Hot Dog Day Weekend	Fri-Sun	Apr 20-22
Last Day to Defend a Graduate Thesis/Project	Fri	Apr 20
Classes End (after last class meeting)	Mon	Apr 30
Final Exams begin (grades due within 48 hours of exam or last class, if no exam)	Wed	May 2
Spring Semester ends after last Final Exam	Mon	May 7
All Final Grades for the Semester due by 10:00 a.m.	Wed	May 9
Commencement	Sat	May 12

Summer Sessions 2012

First Session	Mon-Fri	May 14-Jun 22
Second Session	Mon-Fri	Jun 25-Aug 3

2012-13 Academic Year (tentative)

Fall Semester 2012	Day(s)	Date(s)
New Student Check-in/Move-in Day	Thu	Aug 23
Orientation for New Students	Thu-Sat	Aug 23-25
Opening Convocation	Fri	Aug 24
Residence Halls Open for Returning Students	Sat	Aug 25
Classes Begin	Mon	Aug 27
Last Day to Add courses (other than “B” Block courses), and Last Day to Drop or select P/F in "A" Block courses	Fri	Aug 31
Last Day to Drop, select P/F in a course that meets all semester	Fri	Sep 7
Last Day to Withdraw from a course, cancel P/F, select or cancel Audit in "A" Block	Fri	Sep 21
Family Weekend	Fri-Sun	Sep 21-23
Last Day to apply for Study Abroad in Spring Semester	Mon	Oct 1
Homecoming Weekend	Fri-Sun	Oct 5-7
Last Day of “A” Block	Fri	Oct 12
Mid-Term Break - no classes	Mon-Tue	Oct 15-16
Mid-Term grades and A-Block final grades due by 10a.m.	Mon	Oct 15
Classes Resume; B-Block begins	Wed	Oct 17
Last Day to Add/Drop or Select P/F in "B" Block courses	Fri	Oct 19
Last Day to Withdraw from a course, cancel Pass/Fail, select or cancel Audit in a course that meets all semester	Tue	Oct 23
Advisement Week for Spring 2013 Registration	Mon-Fri	Oct 29-Nov 2
Registration for Spring Semester Begins	Mon	Nov 5
Last Day to Withdraw from a course, cancel Pass/Fail, select or cancel Audit in "B" Block	Tue	Nov 13
Thanksgiving recess begins after last class	Tue	Nov 20
Classes Resume	Mon	Nov 26
Classes End (after last class meeting)	Fri	Dec 7
Final Exams begin (grades due within 48 hours of exam or last class, if no exam)	Mon	Dec 10
Fall Semester ends after last Final Exam	Fri	Dec 14
All Final Grades for the Semester due by 10a.m.	Mon	Dec 17

Spring Semester 3013

Residence Halls open 10:00 a.m.	Sunday	Jan 20
Classes Begin	Tue	Jan 22
Last Day to Add courses (other than “B” Block courses), And Last Day to Drop or select P/F in "A" Block courses	Mon	Jan 28
Last Day to Drop, select Pass/Fail in a course that meets all semester	Mon	Feb 4
Last Day to Withdraw from a course, cancel P/F, select or cancel Audit in "A" Block	Mon	Feb 18
Last Day to Apply for Study Abroad in Fall Semester	Fri	Mar 1
Last Day of "A" Block, Spring Break begins after last class	Fri	Mar 8
Mid-Term grades and A-Block final grades due by 10a.m.	Mon	Mar 11
Classes Resume; B-Block begins; Summer School Registration Begins	Mon	Mar 18
Last Day to Add/Drop or Select P/F in "B" Block courses	Wed	Mar 20
Last Day to Withdraw from a course, cancel P/F, select or cancel Audit in a course that meets all semester	Mon	Mar 25
Advisement Week for Fall 2013 Registration	Mon-Fri	Apr 1-5
Registration for Fall Semester Begins	Mon	Apr 8
Last Day to Withdraw from a course, cancel Pass/Fail, select or cancel Audit in "B" Block	Mon	Apr 15
Honors Convocation	Fri	Apr 26
Spring Family Weekend/Hot Dog Day Weekend	Fri-Sun	Apr 26-28
Last Day to Defend a Graduate Thesis/Project	Fri	April 26
Classes End (after last class meeting)	Mon	May 6
Final Exams begin (grades due within 48 hours of exam or last class, if no exam)	Wed	May 8
Spring Semester ends after last Final Exam	Mon	May 13
All Final Grades for the Semester due by 10a.m.	Wed	May 15
Commencement	Sat	May 18

Summer Sessions

First Session	Mon-Fri	May 20-Jun 28
Second Session	Mon-Fri	July 1-Aug 9

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Telephone Directory

General Information	**607 871 2111 or 607 871 2175**
Specific Information Concerning an Academic Branch	
College of Business	607 871 2124
College of Liberal Arts and Sciences	607 871 2171
New York State College of Ceramics	
School of Art and Design	607 871 2412
Kazuo Inamori School of Engineering	607 871 2242
Graduate School	607 871 2141
Catalogs and Admissions Information	
Director of Admissions	607 871 2115 or 800 541 9229
Financial Aid and Scholarships	
Director of Financial Aid	607 871 2159
Housing	
Director of Residence Life	607 871 2186
Summer Sessions/Programs	
Summer Programs Office	607 871 2612
Student Service Center	607 871 2123
• Registrar	
• Student Accounts	
Parent Relations	
Director of Parent Programs	607 871 2612
Health Services/Health Records	
Wellness Center: Health Services	607 871 2400
Student Affairs	
Vice President for Student Affairs; Dean of Students	607 871 2132