as loans to galleries, universities and major cultural institutions throughout the Southeast.

**DANCE (DAN)**

The dance curriculum is designed for students interested in dance as an art form. Their objectives may be to continue their education in graduate school, to teach in a college or a private school, or pursue a career as a performer and/or choreographer.

Concerts are presented each semester as well as workshop performances. Major dance companies perform on campus and in the community providing students with the opportunity of studying with visiting artists.

**Requirements for the B.A. Degree Performance Concentration (44 semester hours minimum)**

Suggested core curriculum pattern:

<table>
<thead>
<tr>
<th>First Year</th>
<th>all students (11 credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN 3610</td>
<td>2 Music for Dance I</td>
</tr>
<tr>
<td>DAN 3611</td>
<td>2 Music for Dance II</td>
</tr>
<tr>
<td>TPA 2223</td>
<td>3 Basic Theatre Crafts</td>
</tr>
<tr>
<td></td>
<td>4 Fundamental Dance Techniques</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Year</th>
<th>all students (12 credit hours plus electives)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAA 2160</td>
<td>3 Modern Dance II (Ballet requirement, Modern elective)</td>
</tr>
<tr>
<td>DAA 2201</td>
<td>3 Ballet II (Modern requirement, Ballet elective)</td>
</tr>
<tr>
<td>DAA 3700</td>
<td>2 Choreography I</td>
</tr>
<tr>
<td>DAA 3701</td>
<td>2 Choreography II</td>
</tr>
<tr>
<td>DAN 3590</td>
<td>2 Practicum in Dance Production</td>
</tr>
<tr>
<td>DAN 4120</td>
<td>3 Survey History of Dance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Year</th>
<th>Modern Concentration (16 credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAA 3161</td>
<td>6 Modern Dance III</td>
</tr>
<tr>
<td>DAN 3202</td>
<td>3 Ballet III</td>
</tr>
<tr>
<td>DAA 4702</td>
<td>2 Choreography III</td>
</tr>
<tr>
<td>DAN 3710</td>
<td>1 Repertory</td>
</tr>
<tr>
<td>DAN 4151</td>
<td>3 19th &amp; 20th Century Dance History</td>
</tr>
<tr>
<td>DAN 4906</td>
<td>1 Directed Study (Junior Project)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Year</th>
<th>Modern Concentration (14 credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAA 4162</td>
<td>8 Modern Dance IV</td>
</tr>
<tr>
<td>DAA 4703</td>
<td>2 Choreography IV</td>
</tr>
<tr>
<td>DAN 3710</td>
<td>1 Repertory</td>
</tr>
<tr>
<td>DAN 4170</td>
<td>2 Dance Senior Seminar</td>
</tr>
<tr>
<td>DAA 4790</td>
<td>1 Senior Project</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Year</th>
<th>Ballet Concentration (14 credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAA 4203</td>
<td>8 Ballet IV</td>
</tr>
<tr>
<td>DAA 3220</td>
<td>2 Ballet Variations</td>
</tr>
<tr>
<td>DAN 3710</td>
<td>1 Repertory</td>
</tr>
<tr>
<td>DAA 4170</td>
<td>2 Dance Senior Seminar</td>
</tr>
<tr>
<td>DAA 4790</td>
<td>1 Senior Project</td>
</tr>
</tbody>
</table>

**Department Policy For Academic Progress**

A maximum of 17 credit hours of Dance electives may apply toward the dance degree.

TPA 2200 or 2223 Theatre Crafts: Lighting, Costume or Stage Crafts (3) is required of all dance majors and may apply toward Area II of the General Distribution Requirement, or non-major electives, or the 6 hour Special College Requirement.

Dance majors must enroll for at least a minimum of 2 credit hours (1 per semester) in DAN 3590 Practicum in Dance Production. By doing technical preparation and working backstage in a minimum of two major concerts, the student will have a better grasp of production problems and their solutions. The major student is expected to earn 2 credits in DAN 3710 Repertory by performing in at least two faculty directed concerts in their junior or senior year.

Dance majors are required to do a complete dance project through directed studies (DAN 4906) and senior dance majors are required to choreograph a group work and perform a solo as a senior project in a dance program.

Entrance to all technique courses is by faculty examination. Until the student is accepted into Modern Dance III or Ballet III he/she will be considered as a probationary dance major. DAA 2160 or DAA 2201 may be repeated only once for credit towards degree requirements.

Prospective Majors must contact the dance department to arrange for an audition prior to registration.

**Critiques**

1. All students will be evaluated periodically at faculty sessions as well as critiqued per semester. Majors will be advised accordingly.
2. If the faculty feels that a student is deficient in some area which necessitates a probationary action, the student in question will be advised and asked to sign a probation form. This form is kept on file with the student’s advisor.
3. Failure to make satisfactory progress within the following semester shall constitute grounds for Departmental recommendation to drop and discontinue the major.

**Minimum Grade for Dance Courses**

A student must receive a “C” grade or better in required major courses. Should a student fail to do so, the course(s) in which the student received a “D” or “F” must be repeated and a “C” grade or better earned.

**Additional Standards**

In addition to meeting the specific requirements and standards discussed above, the student and advisor will periodically evaluate the student’s general progress. A less-than-satisfactory rating in one or more of the following areas could place the student on probation. A student on probation is given a specific amount of time to achieve a satisfactory rating before being dropped from the major program:

1. Adequate technical skill and adaptability.
2. Evidence of creative potential.
3. “B” average in major studio classes.
4. Good health which includes adequate control of body weight.

Class probation and department probation require review and final determination at the end of the subsequent semester. Students will be notified of the results of final faculty review, i.e., reinstatement in good standing or recommendation to drop major.

A dance major is expected to keep his/her weight at a level that is aesthetically acceptable to the dance faculty for classroom training and all performances.

For other non-major requirements see both Fine Arts College requirements and the University’s General Distribution and graduation requirements.

**Requirements for a Minor in Dance**

(20-semester-hour minimum)

1. Minimum of 10 semester hours upper-level courses (3000 and 4000 level courses).
2. Admission to all studio classes is by audition only (as with major students) and the student must be ranked by level before being admitted. Studio courses may be repeated for credit as stipulated in the Catalog.
3. Prospective students must contact the Dance department to arrange for an audition prior to registration. DAA 2160 and DAA 2201 may be repeated only once for credit toward the minor.
4. The student must audition each semester to stay at his/her present level or to advance to a higher level for all technique courses.

**Transfer Student Requirements**

Transfer students must have a minimum of 8 credits in major technique on campus. The Dance faculty will consider a transfer of credits and/or
a waiver of one or two credits for the remaining technique credits re-
quired upon the written request of the student. The written request
must be accompanied by a letter of recommendation from the student’s
former instructor. Such a request and letter of recommendation does
not obligate the faculty to accept the credits the student wishes to
transfer. No technique credits will be considered for transfer unless the
university or college from which the student is transferring has a
recognized major in dance.

**Visiting Artists and Artists-in-Residence**

By supplementing its excellent ongoing regular staff-instructed dance
curriculum with other professional resources made available through the
Visiting Artist and Artist-in-Residence programs, the Dance depart-
ment provides for dance students an overall dynamic program for prac-
tice, study and learning.

**MUSIC (MUS)**

**The B.M. Degree (Performance, Piano Pedagogy and Composition):**

The music curriculum is designed for those students gifted in the per-
formance and/or composition of music. Candidates for a major in music
are required to pass an entrance examination (audition) in their respective
performance area. Composition candidates are required to submit ap-
propriate scores and/or tapes of their compositions for faculty appraisal.
Before freshman students may enter the theory sequence, a grade of “C”
or better must be made on the theory placement test. If this grade
is not achieved, the student must enroll in a music fundamentals course.
This course will not apply toward the major requirements. If either por-
tion (written or aural) of the test is failed, the student must take the
fundamentals course. All transfer students are required to take a theory
placement test and required to enter at the appropriate level. Students
may obtain dates and times for these examinations from the music
department office. Completion of the examinations is required before
registration in music courses can be permitted.

Academic programs offered include:

  - Bachelor of Music degree with concentration in Performance (voice,
piano, organ, harp, guitar and orchestral instruments), Composition,
and Piano Pedagogy.

**General Requirements:**

All students seeking a degree in music are required to (1) complete suc-
cessfully the piano proficiency and music theory-history-literature re-
quirements; (2) present a partial public recital during the junior year
except composition majors; (3) present a full public recital during the senior year;
(4) present a record of satisfactory recital attendance dur-
ing each of the semesters of study at the University (the specific re-
quirements for satisfactory attendance are set by the music faculty).
Those requirements are in addition to the actual course requirements
listed below.

**Core Requirements for all Performance, Pedagogy and Composition Concentrations**

(36-40 semester hours minimum):

- **Music Theory (20)**
  - MUT 1111 (3)
  - MUT 1242 (1)
  - MUT 2246 (1)
  - MUT 1112 (3)
  - MUT 2116 (3)
  - MUT 2247 (1)
  - MUT 1241 (4)
  - MUT 2117 (3)
  - MUT 4471 (2)
  - One of MUT 3000 or 4000 course offerings (2)
- **Music Literature (3)**
  - MUL 2111 (3)
- **Music History (6)**
  - MUH 3300 (2)
  - MUH 3301 (2)
  - MUH 3302 (3)
- **Senior Seminar (1)**
  - MUS 4935 (1)
- **Major Ensemble Performance and Pedagogy (8), Composition (4)**

All undergraduate students enrolled in applied music for 3 credit
hours are required to be enrolled concurrently in a major ensemble ap-
propriate to their performing medium.

**Additional Requirements for Specific Concentrations:**

**Performance Concentration**

(64 semester hours minimum):

- A total of 24 credit hours of applied music is required with a minimum of 6 hours to be completed at the senior level.
- Promotion to the next higher level in applied music is made upon the recommendation of the faculty in the student’s respective per-
formance concentration based upon a jury examination conducted by that concentration’s faculty.

**Piano Pedagogy Concentration**

(68 semester hours minimum):

- The following requirements for the piano pedagogy concentration are in addition to the above performance concentration requirements:
  - Music Studio Pedagogy (4)
  - MVK 4640 (2)
  - MVK 4641 (2)
- Junior and senior recital requirements may be fulfilled in one of the following ways; (1) lecture/recital, (2) ensemble performance, (3) full recital with music.

**Composition Concentration**

(72 semester hours minimum):

- All students seeking a degree in music with a composition concentra-
tion are required to fulfill the senior composition requirements (with
the approval of the entire faculty) in one of the following ways; (a) a
complete public performance of works by the student composer, (b)
the public performance of several compositions in various concerts
throughout the composer’s senior year, (c) the formal presentation to
the composition faculty of an extensive portfolio of compositions plus
the public performance of at least one of these works during the senior
year, or (d) in other ways so designated by the composition faculty.
- **Major Ensemble (4)**
  - All undergraduate students enrolled in applied music for 3 credit
  hours are required to be enrolled concurrently in a major ensemble ap-
  propriate to their performing medium.
- **Applied Music (12)**
  - A minimum of 12 credit hours of applied music is required with
  a minimum of 6 credit hours at the 2000 level.
- **Composition Courses (24)**
  - Undergraduates concentrating in composition must complete a
  minimum of 24 credit hours from the following sequence of courses
  including MUC 3402, and at least one semester of MUC 4204, satisfy-
  ing all necessary prerequisites for all courses:
  - MUC 2201 (3,3)
  - MUC 3601,3602 (3,3)
  - MUC 2301 (2)
  - MUC 4203 (3)
  - MUC 3202 (3)
  - MUC 4405,4406 (3,3)
  - MUC 3401,3402 (3)
  - MUC 4501 (2)
  - MUC 3441,3442 (3)
  - MUC 4311,4312 (2,2)
  - For other degree requirements for all the above concentrations, see
  Fine Arts College requirements and the University’s General Distribu-
tion and graduation requirements.

**MUSIC EDUCATION**

**Requirements for the B.S. Degree (MUE):**

All students seeking a degree in music education are required to pass an
audition in their respective performance area. Before freshman
students may enter the theory sequence, a grade of “C” or better must
be made on the theory entrance test. If this grade is not achieved, the
student must enroll in a music fundamentals course. This course will
not apply toward the major requirements. If either portion (written or aural) of the test is failed, the student must take the fundamentals
course. All transfer students are required to take a theory placement
test and required to enter at the appropriate level. Students must
obtain the dates for these examinations from the music office. Compli-
tion of the examinations is required before registration in music courses
can be permitted.

Special requirements for all music education majors; successful com-

1. Core Curriculum:

Music Theory (8)
Introduction to Music Literature (3)
or
Music History (3)

2. Optional Concentrations:

a. History-Theory-Literature 9-10 hours
Music History and/or Theory and/or
Literature (7-8)
Music Ensemble (2)

b. Applied Medium 8-10 hours
Performance Studio courses which may include up to 2 semester hours of
class-studio (6-8)
Music Ensembles (2)

Faculty jury recommendations for sophomore-level studio study (minimum)
c. Composition 9 hours
Introduction to Electronic Music (2)
Composition Studio courses which may include

course one of orchestration (6)
Music Ensemble (1)

3. Admission to all studio courses is by audition with major students,
and the student must be ranked by level. Class-studio courses may serve
as preparation for auditions. Registration in all music courses is by permission of the instructor. Studio courses may be repeated
for credit as stipulated in the Catalog.

The Faculty:

USF's superior music faculty has been carefully chosen for its training,
performing ability, and ability to teach. It is in every sense a team. This achievement has been demonstrated by such fine musical ensembles as the Faculty String Quartet, the Faculty Brass Quintet, the Ars Nova
(faculty) Wind Quintet and the Faculty Chamber Players.

SYCOM
The SYtems COMplex for the Studio and Performing Arts exists to provide
essential instructional services and state-of-art reproducing, mixing,
editing, and electronic sound generating and processing equipment
digital and analog) for development and implementation of exploitative
research and creative activity by artists, scientists, and students (generally
enrolled in related classes) at USF.

Basic recording facilities in Studio A include a custom designed 12
channel quad. mixing console, constructed around an OVARFES frame
(with patch bay,remotes and monitor controls), an MCI eight-track
recorder (1-format; 7 1/2, 15, 30 ips) with DBX 208, an Ampex ATR
102 two-track recorder with Dolby A, a TEAC 40-4 four-track recorder
with DBX, a MCM MIX stereo reverb and four White 1/3 octave
equalizers, four JBL 4315 B studio monitors are powered by two Yamaha
amplifiers. Eu Systems provides a modular synthesizer with a real time
evocie microprocessor controlled; keyboard/sequencer (6000 notes of
storage, cassette "load and store" of software, a Prophecy-5 and Emulator
complete sound generating capabilities). Computer facilities include a
standard 820 8pu (system upgradable to a 8200) with 64 K of RAM,
and IBM compatible, digital tape drive (7 or 9 track; 800 or 1600 BPM),a
29 megabyte Shugart disk, two 500 K double density floppy diskettes,
four channels of 12 bit to a for synthesizer control (8 for pitch; 8
for amplitude; 16 separate triggers), one channel of analog-to-digital
conversion and two Hazeline 1500 terminals. A Megasystems hybrid
microprocessor/sequencer with 2000 notes of storage and an array of
specialized software entered on a standard ASCII terminal is also
available. Peripherals include a Technics SL 1600 BPI turntable system,
an Akai GX-M50 cassette deck, a frequency counter and a digital clock.

Written proposals for individuals or group projects to be sponsored or subsidized by SYCOM and/or extramural granting agencies should be submitted for consideration to the director of SYCOM. The subsequent result of project activities will be exhibited in the form of public lectures, performances, reports, publications, or large theatrical events
and special workshops, such as Sound Gallery, the Event/Complex

Requirements for a minor in Music

(19-22 semester hour minimum)
Theatre offers serious interested students the opportunity to prepare for the beginning of a professional career in the Theatre or to continue their studies at the graduate level. In addition, students from other departments and colleges have the opportunity to study and participate in the work of the department, thereby allowing them to gain insight into the creative experience of theatre.

**Unique Learning Opportunities:**

The music department at the University of South Florida offers the student the opportunity to study with a distinguished faculty, work with the newest in creative equipment, and to be in the company of other superior music students for an extensive, exciting and exacting period of study. In addition to the already established programs in the choral, orchestral and wind ensemble areas, opportunities are now available in jazz with performances with the jazz ensemble and chamber jazz ensembles, a full range of jazz courses and professional playing opportunities in the area.

**Visiting Artists and Artists-in-Residence**

The Department of Music utilizes guest composers, conductors, and performing musicians to enhance its offerings in terms of teaching faculty, forum appearances, and the conducting of musical programs, symposia, and clinics. Some prominent musicians who have appeared in the past are:

- Norman Dello Joio
- Randall Thompson
- Virgil Thompson
- Walter Trampler
- Fred Hemke
- Lukas Foss
- Maurice Andre
- Jean Pierre Rampal
- Adele Adison
- Byron Janis
- Louis Bellson
- David Samuel
- Julius Baker
- Ransom Wilson
- T. J. Anderson
- Hale Smith
- George Russell

**Student Organizations:**

Sigma Alpha Iota, national professional music fraternity for women, and Phi Mu Alpha Sinfonia, a professional music fraternity for men, are dedicated to serve the cause of music in America. Student Music Educators National Conference is an affiliate of the Music Educators National Conference and is open to all interested students.

**Financial Aid:**

The University has made available to highly qualified undergraduate students a number of music service awards. Usually these awards cover in-state tuition fees, and are distributed following open auditions held in February and March. The award is made for the following year for two semesters. Out-of-state tuition waiver is also possible. Also available are scholarships awarded in specified areas including Dawn Randall Zimmerman Scholarship, Mary Corey Bogdonas Scholarship, Richey Symphony Society Scholarship Fund, Steve Penovich Scholarship, Marjorie Roe Scholarship, and the Zbar Award. Additionally, loans, grants and work programs are available to qualified University of South Florida students. Financial aid is granted on need, academic promise and character.

**THEATRE (TAR)**

**The Department Major:**

Through its curriculum and production program, the Department of Theatre offers to seriously interested students the opportunity to prepare themselves for the beginning of a professional career in the Theatre or to continue their studies at the graduate level. In addition, students from other departments and colleges have the opportunity to study and participate in the work of the department, thereby allowing them to gain insight into the creative experience of theatre.

After a thorough orientation to all facets of the art gained in the basic courses, the theatre major pursuing the Bachelor of Arts degree concentrates in the areas either of Performance or Design.

To earn a B.A. in Theatre, the student following the design concentration must take a minimum of 55 credit hours. The Design students are required to take an additional 4 credits (ART 3301C) in the Art Department. These may be applied to the college requirement of 6 credit hours outside the department but within the college. The Design students are required to take an additional 4 credits (ART 3301C) in the Art Department. These may be applied to the college requirement of 6 credit hours outside the department but within the college. The Design students are required to take an additional 4 credits (ART 3301C) in the Art Department. These may be applied to the college requirement of 6 credit hours outside the department but within the college. The Design students are required to take an additional 4 credits (ART 3301C) in the Art Department. These may be applied to the college requirement of 6 credit hours outside the department but within the college.

**Requirements for the B.A. Degree with a Major in Theatre**

In the total of 124 credit hours for graduation, the student following a Performance concentration must take a minimum of 54 credit hours, and the student following the Design concentration or Theatre Arts concentration must take a minimum of 55 credit hours within the Department of Theatre. In addition, a maximum of 11 credit hours (Performance concentration) and a maximum of 10 credit hours (Design or Theatre Arts concentration) may apply to the theatre electives area.

The student may choose one of three tracks for the B.A. degree: Performance, Design, or Theatre Arts. Common to all tracks is the following core:

### Core Curriculum (35 hours)

<table>
<thead>
<tr>
<th>First Year (11 credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE 2020</td>
</tr>
<tr>
<td>TPA 2200</td>
</tr>
<tr>
<td>TPA 2223</td>
</tr>
<tr>
<td>TPA 2232</td>
</tr>
<tr>
<td>TPA 2210</td>
</tr>
</tbody>
</table>

### specialised courses

#### Performance (11 credit hours)

- Performance Electives
- Production Electives
- Directing and Production Electives
- Directing Electives

#### Design (11 credit hours)

- Design Electives
- Production Electives
- Directing Electives
- Directing and Production Electives
- Directing Electives

#### Theatre Arts (11 credit hours)

- Performance Electives
- Production Electives
- Directing and Production Electives
- Directing Electives
- Directing Electives
## Performance Concentration

(55 hours minimum with core) - 20 hours

<table>
<thead>
<tr>
<th>Fourth Year (6 hours)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>THE 4180</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>THE 4562</td>
<td>4 credit hours</td>
</tr>
</tbody>
</table>

Plus 2 credits of either THE 3925 or THE 4927 for ACPI*

*All Theatre Majors must complete 4 ACPI's (Advanced Course Production Involvement) as part of their graduation requirements. ACPI's must be taken under:

- THE 3925 - Performance 1 credit hour and/or
- THE 4927 - Advanced Performance 1 credit hour for a total of four (4) hours. Students may register for ACPI credit second semester of the Sophomore year and are expected to register each consecutive semester until completion of four involvements. A graduation requirement.

## Design Concentration

(55 hours minimum with core) - 20 hours

<table>
<thead>
<tr>
<th>Fourth Year (7 hours)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TPP 4152</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>TPP 4920</td>
<td>3 credit hours</td>
</tr>
</tbody>
</table>

## Theatre Arts Concentration

- Two credit hours from the Performance sequence of courses (TPP) plus eighteen hours to be selected from the Theatre Department's course offerings.

## Requirement for a Minor in Theatre

(21 hours minimum):

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE 2020</td>
<td>2 credit hours</td>
</tr>
<tr>
<td>TPA 2223</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>TPA 2232</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>TPA 2110</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>TPA 2200</td>
<td>3 credit hours</td>
</tr>
</tbody>
</table>

The remaining 10 hours are to be selected by the student based on personal interest. At least 9 hours must be upper level courses. The Theatre advisor will be available to assist the student in developing a course of study that will meet the needs of the individual student.

Students desiring admittance into the B.F.A. program must audition and those entering the Design sequence must have a portfolio review.

All Theatre minors must satisfy two ACPI's before they are approved for graduation.

All Theatre courses (with the exception of the above mentioned lab courses) are subject to consent of the instructor.

## Requirements for the B.F.A. Degree in Theatre

The student should submit a letter of application as early as the second semester of the Junior year. This should be accompanied by a transcript and a detailed description of production involvement.

The student will concentrate in either Performance or design technology.

Admission to the B.F.A. program is by audition or portfolio presentation and acceptance by the appropriate faculty committee.

The B.F.A. candidate must achieve a cumulative grade point average of at least 2.5. The student must choose the area of study that will meet the needs of the individual student. At least 9 hours must be upper level courses. The Theatre advisor will be available to assist the student in developing a course of study that will meet the needs of the individual student.

Students desiring admittance into the B.F.A. program must audition and those entering the Design sequence must have a portfolio review.

All Theatre minors must satisfy two ACPI's before they are approved for graduation.

All Theatre courses (with the exception of the above mentioned lab courses) are subject to consent of the instructor.

## Design Concentration

7 hours in Creative Project and Execution:

- THE 4905 or THE 5909 (Research & Design Creative Project) (4 credit hours)
- TPA 4102 Project Design: Honors (3 credit hours)

Complete third area of design and prerequisite (7 credit hours) 10 credit hours of additional electives of which 6 must be outside the Department of Theatre.

PLUS 6 credit hours.

TPP 4310 Directing I (3 credit hours)
THE 4900 Directed Reading (3 credit hours)
Performance Concentration

12 credit hours of production preparation through Performance classes from the following:

- THE 4905: 1-4 credit hours
- THE 4930: 1 credit hour
- TPA 2250: 1 credit hour
- TPA 3810: 3 credit hours
- TPA 3840: 4 credit hours
- TPP 3121: 3 credit hours
- TPP 3122: 3 credit hours
- TPP 3235: 3 credit hours
- TPP 3510: 2 credit hours
- TPP 4220: 2 credit hours
- TPP 4310: 3 credit hours
- TPP 4311: 3 credit hours

PLUS 6 credit hours:

- TPP 4610: 3 credit hours

12 credit hours of additional electives of which 6 must be outside the Department of Theatre

PLUS 6 credit hours:

- TPP 4180: Scene Study Honors (3 credit hours)
- THE 4900: Directed Reading (3 credit hours)

Honors Program

The Department of Theatre offers to majors designated for the Honors Program the following 6-credit sequence:

- a 2-credit seminar.
- a 3-credit course consisting of creative project work determined by the instructor and a guest artist.
- a 1-credit thesis or realized project designed by the student with consultation by a faculty committee.
Students in the College of Natural Sciences are trained in the tools of logical analysis and the modes of experimentation in the continuous attempt to better understand the nature of man and his relationship to the universe. In all its functions the College is dedicated to fostering a spirit of inquiry and intellectual growth.

The College of Natural Sciences offers programs in biology, including botany, microbiology, and zoology; chemistry; geology; marine science; mathematics; medical technology; and physics. These programs are designed for students planning scientific careers in the science fields or for those planning professional careers having a considerable component of science. These students will typically major in one of the sciences or in a combination of sciences as preparation for employment, transfer to professional schools or admission to graduate school.

In addition, the college administers advising for the preprofessional sciences non-degree program and the medical technology degree program. These programs combine specialized counseling and curriculum planning to assist the student in gaining admission to a professional school or internship program.

**BACCALAUREATE LEVEL DEGREE PROGRAMS**

**Admission to the College**

To be admitted to the College of Natural Sciences a student must make written application and satisfy the admission criteria of the college. Upon admission, the student will be assigned a faculty advisor for counseling and program planning. Students preparing for a science or mathematics career must plan their courses carefully because of the sequential nature of the science curricula, and students seeking entrance into a professional school or medical technology internship program require specialized counseling. Because of this, immediate application for admission into the college is strongly recommended.

Information on admission criteria, departments, majors, programs, counseling, and other services of the college may be obtained from the office of the Dean, College of Natural Sciences, University of South Florida, Tampa, Florida 33620.

**General Requirements for Degrees**

In addition to the University graduation requirements, the requirements for graduation in any undergraduate degree in the college are as follows:  
1. Completion of a major program with a grade of "C" or higher in each course. A major program is defined to be courses in a department of concentration plus supporting courses in related departments. All courses in the major program must be taken with letter grade (A, B, C) except those courses which are graded S/U only. For a more detailed description of the major program requirements, consult the appropriate departmental section. Certain courses offered in the college are designated for non-science major or the non-departmental major. These courses are designated "For non-major;" "No credit for (department) major;" "No credit for science majors;" or some similar phrase. For these courses the following rules apply:  
   "For non-majors" - For majors in the college, the course will count as credit toward graduation only as a free elective.  
   "No credit for (department) major" - the course will not count toward graduation for a science major in the specified department, but will count toward graduation as a free elective for all non-specified departments.  
   "No credit for science majors" - the course will not count toward graduation for any major college.  
2. Satisfaction of the University Distribution Requirement, except:  
   a. In area III, the minimum requirement of six hours in mathematics may be waived by credit in at least six hours of mathematics courses required by the major.  
   b. In area IV, the minimum of six hours in Natural Sciences may be waived by credit in at least six hours of natural sciences courses required by the major.  
3. Completion of 15 hours of courses from the Colleges of Fine Arts, Social and Behavioral Sciences, or Arts and Letters. The student may elect any course from any of these colleges provided:  
   a. No more than 9 hours are taken in courses in any one department.  
   b. The courses are taken with letter grades (A,B,C,D). Courses taken to satisfy the University Distribution Requirement may not be used to satisfy this requirement. However, "Gordon Rule" writing courses may be used, if not used in GDR.  
4. Subsequent to admission to the college, a student must complete at least 30 credit hours of letter graded courses in the college, of which at least 12 hours must be applicable to a major.  
   Up to 2 credits of elective physical education, and up to 9 credits in military science courses MIS 1000, 3404, 4421C may count as free electives toward graduation. Credits transferred from other schools will not be included in the grade point average computed for graduation. For graduation with honors, see section in Academic Policies and Procedures. The college or department in the college may have specific requirements in addition to those listed in this catalog. College rules or requirements are on file in the dean's office, and departmental rules or requirements are on file in each department office. The student is responsible for meeting all graduation requirements.  
5. Satisfactory completion of the College Level Academic Skills Test and the writing and computation course requirements of 6A-10.30.

**Grading Systems**

The College of Natural Sciences will provide some evaluation of performance in all structured undergraduate courses prior to the drop deadline.

Typically, courses in the University receive letter grades (A, B, C, D, F). However, the college recognizes that educational competence may be achieved and demonstrated by experiences other than classroom attendance leading to letter grades. The attention of the student is directed to the following:

1. CLEP and other advance placement examinations.  
2. Waiver by either documentation or examination.  
3. Off-Campus Term programs.  
4. Cooperative Education Program.  
5. Independent Study  

   a. With the exception of courses graded S/U only, all courses required to satisfy the departmental major and all supporting courses required by the departmental major are considered in the student's major program and may not be taken S/U. However, once the requirements of the major program have been satisfied, subsequent courses taken in the major or supporting areas are considered free electives and may be taken S/U. All hours required to complete the 15-hour rule must be taken by letter grade.  
   b. With the exception of ENC 1101 and ENC 1102, all courses in Distribution Requirements and all courses in free electives may be taken S/U. There is no restriction regarding the number of hours to be taken S/U except the graduation requirement that the student must earn at least 30 credit hours with letter grades in the College of Natural Sciences.  
   c. Students will be permitted to enroll in a course by an S/U on the basis of a written contract signed by the student, and the in-
sional schools and is an important resource center for preprofessional sciences advising office for students transferring from any other college division of the University will be subject to the above requirements.

**Programs Leading to the Baccalaureate Degree**
The College offers the Bachelor of Arts degree with majors in Chemistry (CHM); Geology (GLY); Mathematics (MTH); Physics (PHY); and Interdisciplinary Natural Sciences (INS) with a concentration in one of the above disciplines or in Biology. The college offers the Bachelor of Science degree with majors in Biology (BIO), Botany (BOT), Microbiology (MIC), and Zoology (ZOO); Chemistry (CHS), Clinical Chemistry (CHC), Geology (GLS), Medical Technology (MET), and Physics (PHS). The College has a unique track in Biotechnology within the Biology degree, and a unique combined B.A./M.A. program in Chemistry. We also anticipate approval of an accelerated B.A./M.A. program in Mathematics for the fall 1987-88. For specific requirements, consult appropriate departmental sections of this Catalog.

**Academic Minor Programs**
Academic Minors are offered in the departments of Geology and Mathematics. To complete a minor, a student must satisfy the course requirements found in the departmental sections of this catalog and must satisfy the University requirements. In addition, the student must earn a grade of "C" or higher in each course used to meet a minor requirement of departments of the College of Natural Sciences.

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**PREPROFESSIONAL SCIENCES**
The University of South Florida is an excellent location to prepare for a health profession. The Veterans Administration Hospital, University of South Florida Medical Center, Shriner's Hospital for Crippled Children, H. Lee Moffitt Cancer Center and Research Institute, University of South Florida Mental Health Institute, and University Community Hospital are within walking distance of the campus and offer students excellent opportunities for observation, research, and experience.

The College of Natural Sciences offers programs designed to prepare students for admission to professional schools of medicine, osteopathic medicine, dentistry, optometry, podiatric medicine, and veterinary medicine. Usually these professions require four years of preprofessional preparation followed by four years of training in a professional school. A few well prepared students with exceptional qualifications may be admitted to some professional schools as early as the completion of the junior year of preprofessional work. The preprofessional programs do not meet requirements for a degree. Students should plan to also complete a degree while at USF because professional schools prefer students with a bachelor's degree, although they do not specify the choice of major. Most preprofessional students major in the sciences because of their interests in the health sciences, and because of the considerable overlap between an optimal preprofessional curriculum and the degree requirements for majors in the biology and chemistry departments. The College also offers two-year programs leading to the A.A. degree that prepare students for admission to programs in the health professions of pharmacy and physical therapy. Entrance into all professional schools or programs is competitive, and students should begin establishing a record of excellence with the first semester at USF. Furthermore, it is essential that students pursue courses developing a sense of understanding of cultural and humane values and basic social problems.

The College of Natural Sciences provides academic advising in the Preprofessional Sciences Advising Office. The office maintains a library of current catalogs and books on admission requirements for professional schools and is an important resource center for preprofessional students. Students considering one of the health professions should consult the College of Natural Sciences during the first semester at USF to declare their interest in a preprofessional sciences program. Students are then assigned to the preprofessional sciences advising office for curriculum planning, and each semester the office provides students with updated academic records. The advisers constitute the Preprofessional Sciences Committee, which evaluates students at the time they apply to professional schools. The Committee's evaluation is based upon academic record and test scores, individual evaluations submitted by five faculty members, and an interview. The evaluation is important in the admission selection process and is sent to every school where students are applying.

**Preprofessional Sciences Program**
The Preprofessional Sciences Program is designed to prepare students for admission to professional schools of dentistry, medicine, osteopathic medicine, and podiatric medicine. All of these professional schools have in common the following course requirements, which should be completed by the end of the junior year, the usual time of application:

**Biology:**
- CHM 2045 (3)
- CHM 2045L (1)
- CHM 2046 (3)
- CHM 2046L (1)

**Chemistry:**
- MAC 2233 (4)
- MAC 2234 (4)
- MAC 3311 (4)
- MAC 3312 (4)

**Physics:**
- PHY 2050 (3)
- PHY 2050L (1)
- PHY 2051 (1)
- PHY 2051L (1)

**Mathematics:**
- MAC 2233 (4)
- MAC 2234 (4)
- MAC 3211 (4)
- MAC 3212L (1)

In addition to these requirements it is generally expected that preprofessional students will complete two semesters of English. CLEP credit usually is not acceptable to professional schools.

- Premedical students must include the following courses to meet additional admission requirements of medical schools in Florida:
  - PCB 3063 (3) STA 3023 (4)

The following courses are recommended by some professional schools:

**Biology:**
- MCB 3010C (4)
- ZOO 4693 (4)
- PCB 4184C (4)
- PCB 3063 (3)
- PCB 4743C (4)
- ZOO 3713C (4)
- PCB 4023C (4)

**Chemistry:**
- BCH 3033 (3)
- CHM 3401 (3)
- CHM 3120C (4)
- CHM 3400 (3)

**Preoptometry Program**
Optometry schools differ somewhat in requirements, but all optometry schools require at least two years of preoptometry studies, and most schools require the following courses:

**Biology:**
- BSC 2010C (4)
- MAC 3211 (4)

**Chemistry:**
- CHM 2045 (3)
- CHM 2046 (3)
- CHM 3210L (1)
- CHM 2046L (1)
- CHM 3200 (4)
- or
- CHM 3212L (1)

**Mathematics:**
- MAC 2233 (4)
- STA 3023 (4)
- or
- STA 3122 (3)
The Pre-Veterinary Medicine program meets admission requirements of the University of Florida College of Veterinary Medicine, the only veterinary school in the state. Admission into veterinary school is highly competitive, and to be competitive students should obtain experience working with animals, preferably through employment with a veterinarian.

Pre-Veterinary Medicine Program

The Pre-Veterinary Medicine program meets admission requirements of the University of Florida College of Veterinary Medicine, the only veterinary school in the state. Admission into veterinary school is highly selective, and to be competitive students should obtain experience working with animals, preferably through employment with a veterinarian. Pre-veterinary students should complete a degree in the major of their choice while including the following entrance requirements:

**Biology:**
- BSC 2010C (4)
- ZOO 2010C (4)

**Chemistry:**
- CHM 2045 (3)
- CHM 2045L (1)
- CHM 2046 (3)
- CHM 2046L (1)
- BCH 3033 (3)

**Mathematics:**
- MAC 2233 (4) or MAC 3311 (4)

**Physics:**
- PHY 2050 (3)
- PHY 2050L (1)
- PHY 2051 (3)
- PHY 2051L (1)

In addition, some schools require MAC 2234, APB 3700, ZOO 3713C, CHM 3211, CHM 3211L, BCH 3033, PCB 4743C, PSY 2012, PSY 3013, PSY 3213, and a social sciences elective.

Pre-pharmacy Program

The College offers a two-year program to prepare students for transfer to regional colleges of pharmacy. Pre-pharmacy students must complete general education requirements and include the following science requirements:

**Biology:**
- BSC 2010C (4)
- ZOO 2010C (4)

**Chemistry:**
- CHM 2045 (3)
- CHM 2045L (1)
- CHM 2046 (3)
- CHM 2046L (1)
- BCH 3033 (3)

**Mathematics:**
- MAC 2233 (4) or MAC 3311 (4)

**Physics:**
- PHY 2050 (3)
- PHY 2050L (1)
- PHY 2051 (3)
- PHY 2051L (1)

It is required that students have a minimum of 80 hours including 6 hours of English with one course in composition, 6 hours of social science, 8 hours of humanities, and 7 hours of animal science courses which should be completed at the University of Florida no later than the summer prior to application. Recommended courses are ZOO 3713C (4), ZOO 4693 (4), PCB 4743C (4), and MAC 2234 or MAC 3312.

B.A. Degree for Medical and Dental Students

Students who are admitted to an approved U.S. medical or dental school after completing their junior year at the University of South Florida may be awarded the B.A. degree in Interdisciplinary Natural Sciences from the College of Natural Sciences subject to the following conditions:

1. Transfer of a minimum of 30 semester hours in science courses from an approved medical or dental school.

2. Fulfillment of the following minimum requirements in attendance at the University of South Florida:
   a. 90 hours with at least a "C" average (2.000).
   b. Completion of a minimum of 24 hours in the department of major concentration and a minimum of 16 hours in supporting courses in the College of Natural Sciences outside the department of major concentration. The 24 hours in the department of major concentration must be in courses applicable to a major in that department. The 16 hours in supporting courses must also be taken in courses applicable to a major in that department and must include a minimum of two courses at the 3000 level or above. At least a "C" must be earned in each course in both major concentration and supporting courses.

3. Credit in the following courses:

**Biology:**
- BSC 2010C (4)
- ZOO 2010C (4)

**Chemistry:**
- CHM 2045 (3)
- CHM 2045L (1)
- CHM 2046 (3)
- CHM 2046L (1)

**Mathematics:**
- MAC 2233 (4) or MAC 3311 (4)

**Physics:**
- PHY 2050 (3)
- PHY 2050L (1)
- PHY 2051 (3)
- PHY 2051L (1)

In addition, some schools require 3 or more hours of economics, and additional hours of electives in humanities, speech or communication, and social and behavioral sciences. Pre-pharmacy students should take the Pharmacy College Admission Test (PCAT) in the fall of the sophomore year and apply to pharmacy schools at that time.

Pre-Physical Therapy Program

This two-year program prepares students for entrance into upper level physical therapy programs at Florida institutions. Pre-physical therapy students must complete general education requirements and include the following science requirements:

**Biology:**
- BSC 2010C (4)
- ZOO 2010C (4)

**Chemistry:**
- CHM 2045 (3)
- CHM 2045L (1)

**Physics:**
- PHY 2050 (3)
- PHY 2050L (1)

In addition, one of the following mathematics courses must be taken: MAC 2233, MAC 2132, MAC 2102, or MGF 2102. The following courses are required or recommended at specific institutions: ZOO 3713C, APB 3700, STA 3023, AMH 2100 or AMH 2120, HSC 2100, PSY 2012, DEP 3103, SYG 2000, and a psychology elective.
The College of Natural Sciences in cooperation with the College of The College of Natural Sciences offers B.A. and M.A. degree programs courses in mathematics and science must be approved by the student's portion of the program:

dent will have an advisor in each college. At the outset the planned program. Teachers: preprofessional sciences teachers. Some

to participate in the program, students must have a bac-

calauareate degree and be admitted by both the Preprofessional Sciences Committee and the university. Students should usually have a GPA of 3.0 (on a 4.0 scale) and demonstrate to the Committee potential for success through this program by their recent improvement in academic record, performance in science courses, or previous test scores. Applications for the program may be obtained from the Preprofessional Sciences Committee with a minimum grade point average of 3.3 each semester. The curriculum is planned individually

Postbaccalaureate Preprofessional Sciences Program

A special two-year non-degree program is administered by the Preprofessional Sciences Committee of the College of Natural Sciences for students who hold a baccalaureate degree and need additional courses to prepare for application to professional schools. The program is designed for students who have not completed minimal admission requirements as undergraduates, or who have completed requirements but need to further demonstrate their ability to perform well in the sciences. Students in the program will have the advantage of priority registration in the College of Natural Sciences, and upon completion of the program the Preprofessional Sciences Committee will send letters of evaluation to the professional schools where the students are applying.

In order to participate in the program, students must have a bac-

calauareate degree and be admitted by both the Preprofessional Sciences Committee and the university. Students should usually have a GPA of 3.0 (on a 4.0 scale) and demonstrate to the Committee potential for success through this program by their recent improvement in academic record, performance in science courses, or previous test scores. Applications for the program may be obtained from the Preprofessional Sciences Advising Office. All materials must be in the Preprofessional Sciences Advising Office no later than March 15 for the fall semester and Oc-

tober 1 for the spring semester.

Once admitted to the program students must complete a minimum of 15 hours per semester (excluding summers) of courses approved by the Preprofessional Sciences Committee with a minimum grade point average of 3.3 each semester. The curriculum is planned individually according to the student's background, and an approved schedule would typically include at least three rigorous science courses. Courses will generally be at the undergraduate level. Some students may make application to professional schools after one year in the program, but a second year may be necessary. Students lacking familiarity with the profession are expected to obtain adequate exposure while enrolled in the program.

TEACHER EDUCATION PROGRAMS

The College of Natural Sciences offers B.A. and M.A. degree programs for secondary school teachers and the M.A. degree for junior college teachers.

B.A. Degree Program for Secondary School Teachers:

The College of Natural Sciences in cooperation with the College of Education offers degree programs in Mathematics (MAE), in Botany (B OE), in Chemistry (CHE), in Physics (PHE), in Zoology (ZOE), and in Science (SCE). Because requirements exist in both colleges, a student will have an advisor in each college. At the outset the planned courses in mathematics and science must be approved by the student's advisor in the College of Natural Sciences. There are two options available to the student to satisfy the science portion of the program:

1. The student may complete the requirements of the departmental major. Departmental majors in Botany and Zoology may be found in this section of the catalog under the heading Biology. The departmental requirements of Chemistry, Mathematics, and Physics are found in this section of the catalog under the respective headings Chemistry, Mathematics, and Physics.

2. The student may complete requirements of the Interdisciplinary Natural Sciences major with concentration in Biology, Chemistry, Physics, and Mathematics. A complete description of this major is found in the College of Education Section. This major is particularly appropriate for Science Education majors (SCE).

Prospective students should consult the College of Education portion of this catalog under the heading “Science Education (SCE)” for the required education courses and sample programs.

CURRICULA

BIOLOGY (BIO/BOT/MIC/ZOO)

In addition to a set of basic courses in biology, students must have a thorough preparation in other areas of natural sciences in order to be competitive for jobs or for further study beyond the baccalaureate. A modern biology curriculum is built on a foundation of mathematics, chemistry and physics.

Four specific Bachelor of Science degrees (Biology, Botany, Microbiology, and Zoology) are available for students interested in the biological sciences. They are all preparatory for careers in teaching, agriculture, medicine, dentistry, marine biology, biotechnology, or for post-graduate study in any of the various life sciences. The Department attempts to schedule sequences of 5000 level courses which allow seniors in the Biology program to concentrate in such areas as: Ecology, Cell & Molecular Biology, Physiology, and Marine Biology. Students should study the requirements listed below and then make maximum use of the vigorous advising program maintained by the Department in structuring their total program. A reading knowledge of a modern foreign language (German, French, or Russian) is strongly recommended for those who intend to enter graduate school.

Requirements for the B.S. Degree

1. Department of Biology Courses
   a. Biology Core Courses (Required for all B.S. degrees, 19 cr. hrs.)
      BSC 2010C (4)
      Two of the following:
      BOT 2010C (4)
      ZOO 2010C (4)
      MCB 3010C (4)
      plus
      PCB 3063 (3) and PCB 4023C (4)
   b. Individual Degree Requirements
      BIOLOGY MAJOR (BIO) (21 cr. hrs.)
      One of the following:
      PCB 4743C (4)
      BOT 4503 (4)
      MCB 4404 (4)
      plus one of the following:
      PCB 4184C (4)
      ZOO 4693C (4)
      ZOO 3713 (4)

      The remaining credits may be taken from electives in the department structured and applicable to the major to meet the minimum requirement (at least 8 hours must be at the 4000 level or higher). BCH 3033 may apply toward the Biology electives as well as 4 hrs. of BSC 4910.

      BOTANY MAJOR (BOT) (21 cr. hrs.)
      BOT 2010C (0)
      ZOO 2010C (0) or MCB 3010C (0)
      BOT 4503 (4)
      PCB 4043C (3) or equivalent

      Of the remaining credits, not less than 9 must be selected from structured Botany (BOT) courses at the 4000 level or above.
3. General Distribution requirements (required for all B.S. degrees, 18 cr., assuming waivers of Areas 3 and 4). Each student is required to satisfy the General Distribution requirements of the College of Natural Sciences. The selection of courses within the requirements is to be done in conference with Biology Department advisors.

4. Liberal Education Electives
The student must satisfy 15 hours of liberal education electives as described in item 3 of the graduation requirements of the College of Natural Sciences.

5. Free Electives (including General Distribution waivers) can be taken over and above major requirements and major electives to complete a 120-hour program.

Teacher Education Programs:
For information concerning the degree programs for secondary school teachers and junior college teachers, see College of Education and USF Graduate Catalog.

Marine Biology:
The field of marine biology is especially important in Florida, and there is a good demand for trained personnel. Several faculty members in the department teach courses and conduct research in this area. Undergraduates interested in specializing in marine biology may do so by taking marine-oriented courses offered within the department. Appropriate courses include:

- BSC 3263 (Marine Biology)
- BOT 5185C (Marine Botany)
- ZOO 3203C (Introductory Invertebrate Zoology)
- ZOO 5555C (Marine Animal Ecology)
- ZOO 5535C (Biogeography)

The Biology Department offers M.S. degrees and the Ph.D. degree which allow specialization in marine biology.

Chemistry (CHS/CHM/CHC)
The Department of Chemistry offers three degrees at the baccalaureate level, Bachelor of Arts degree in Chemistry, Bachelor of Science degree in Chemistry, and Bachelor of Science degree in Clinical Chemistry, and two degrees, Master of Science and Doctor of Philosophy, each with specialization in the areas of analytical chemistry, biochemistry, inorganic chemistry, organic chemistry, and physical chemistry, at the graduate level. In addition, a Master of Arts degree in Chemistry is offered as part of a carefully integrated accelerated B.A.-M.A. program. The chemistry faculty is comprised of 27 full-time senior faculty members, of whom all hold the Ph.D. degree. A comparable number of teaching assistants, graduate students who offer courses, and electives provides students with programs of study which can be tailored to fit individual needs while maintaining a sound background in all general aspects of chemistry.

The Bachelor of Science degree in Chemistry (CHS) is a rigorous program which supplies the foundation in chemistry required for both the student who begins a chemical vocation immediately upon graduation as well as the one who pursues advanced study in chemistry or related areas. In accord with this goal the curriculum for the B.S. degree meets the requirements for degree certification by the American Chemical Society.

The Bachelor of Science degree in Clinical Chemistry (CHC) offered by the Department of Chemistry, one of only few programs in the country, is specifically designed to train personnel for this new and growing field of the medical profession, however, the strong scientific background and specific technical expertise provided by this program also afford the student an excellent preparation for graduate study in clinical chemistry, biochemistry, or medicine. Interested students should see the Coordinator of the Clinical Chemistry Program in the Department of Chemistry for further information.

The Bachelor of Arts degree (CHM) provides a course of study designed for the student who does not intend to become a professional chemist but whose career goals require a thorough understanding of chemistry. Inherent in this program is a high degree of flexibility which permits tailoring a course of study to the student's own educational objectives. As such it offers considerable advantages to pre-professional students planning careers in medicine and the other health-related fields and an excellent preparation for primary and secondary school teachers of chemistry or physical science. The B.A. student whose goals change in the direction of graduate work in chemistry should supplement this...
curriculum by addition and/or substitution of a selection of advanced courses from the B.S. program.

The combined Bachelor of Arts-Master of Arts program is a carefully integrated accelerated course of study and research in which an exceptionally able student can earn both degrees within five years from entry as a freshman to the bachelor’s level, for American Chemical Society certification and with an unusually strong research background. For the student who elects to exit from the program at the bachelor’s level, to enter medical school, for example, can depart with a degree which meets requirements for American Chemical Society certification and with an unusually strong research background. For the student who continues into the graduate year, the M.A. program allows considerable freedom of choice among the available chemistry courses, so that the student's own preference within chemistry may be cultivated with unusual intensity. Research and coursework proceed without interruption, there being no additional admission requirements or diagnostic examinations, and the graduate degree is earned by the end of the summer of the graduate year. Upon completion of the program, the student is exceptionally well placed to continue to professional school or to further graduate work leading to the doctorate degree.

Requirements for the Baccalaureate Degrees

1. Chemistry Courses *

   **B.A. CHEMISTRY (CHM) (39 cr. hrs.)**
   - CHM 2045 (3) - CHM 3211 (4)
   - CHM 2045L (1) - CHM 3211L (1)
   - CHM 2046 (3) - CHM 3400 (3)
   - CHM 2046L (1) - CHM 3401 (3)
   - CHM 3120C (4) - CHM 3402C (1)
   - CHM 3210 (4) - CHM 3610C (4)
   - CHM 3210L (1) - Chemistry electives (3000 level or above; may include not more than one hour of CHM 4970 (6)

   **B.S. CHEMISTRY (CHS) (50 cr. hrs.)**
   - BCH 3033 (3) - CHM 3211 (4)
   - CHM 2045 (3) - CHM 3211L (1)
   - CHM 2045L (1) - CHM 3610 (4)
   - CHM 2046 (3) - CHM 4060 (1)
   - CHM 2046L (1) - CHM 4130C (4)
   - CHM 3120C (4) - CHM 4131C (4)
   - CHM 3210 (4) - CHM 4410 (3)
   - CHM 3210L (1) - CHM 4411 (3)
   - CHM 4610 (3) - CHM 4412 (3)

   **B.S. CLINICAL CHEMISTRY (CHC) (48 cr. hrs.)**
   - BCH 3033 (3) - CHM 3211 (4)
   - BCH 3033L (2) - CHM 3211L (1)
   - CHM 2045 (3) - CHM 4410 (3)
   - CHM 2045L (1) - CHM 4412 (3)
   - CHM 2046 (3) - CHS 4100C (3)
   - CHM 2046L (1) - CHS 4300 (3)
   - CHM 3120C (4) - CHS 4301L (1)
   - CHM 3210 (4) - CHS 4302 (4)
   - CHM 3210L (1) - CHS 4310C (4)

2. Supporting Courses in the Natural Sciences

   **B.A. CHEMISTRY (CHM) (24 cr. hrs.)**
   - MAC 3281 (3) - PHY 2050 (3)
   - or PHY 2050L (1)
   - MAC 3282 (3) - PHY 2051 (3)
   - or PHY 2051L (1)
   - MAC 3283 (3) - PHY 2051L (1)
   Electives (must be acceptable for credit towards a Natural Science College discipline major) (8)

   **B.S. CLINICAL CHEMISTRY (CHC) (37-40 cr. hrs.)**
   - BSC 2010C (4) - MCB 3010C (4)
   - ZOO 2010C (4) - PHY 4744C (3)

   **B.S. CHEMISTRY (CHS) (20-23 cr. hrs.)**
   - MAC 3281 (3)
   - MAC 3282 (3) or MAC 3283 (3)
   - MAC 3283 (3)
   - APB 3190 (5) or PCB 4743C (4)
   - PHY 2050 (3)
   - PHY 2051L (1) or PHY 2051L (1)
   - PHY 2051L (1) or PHY 2051L (1)
   - PHY 3040 (3)
   - PHY 3040L (1)
   - PHY 3041 (3)
   - PHY 3041L (1)

   Natural Science or Engineering Elective (3000-4000 level except PHY 3020 (3)

   The required sequence of Chemistry courses should be started immediately in the freshman year and the mathematics and physics requirements should be completed before the junior year so that CHM 3400 (B.A. degree) or CHM 4410 (B.S. degree) can be commenced at that time. CHM 4410 is a prerequisite also to other advanced courses required for the B.S. degree in chemistry.

3. General Distribution Courses

   **(40 cr. hrs. excluding waivers) The student is required to complete the General Distribution requirements of the College of Natural Sciences.**

4. Liberal Education Electives

   The student must satisfy 15 hours of liberal education electives as described in item 3 of the graduation requirements of the College of Natural Sciences.

5. Free Electives (including General Distribution waivers)

   **B.A. CHEMISTRY (CHM); 24 cr. hrs.**
   **B.S. CHEMISTRY (CHS); 20-23 cr. hrs.**
   **B.S. CLINICAL CHEMISTRY (CHC); 0-3 hrs.**

   In choosing elective courses students are urged to consider additional advanced courses in physics and mathematics as well as courses in the closely allied sciences such as biology and geology. Additional courses in computer programming, economics, management, engineering statistics, writing, and other applied disciplines are strongly recommended to strengthen the degree for subsequent professional employment.

Transfer Credit

It is strongly recommended that students transferring from community/junior colleges to the University of South Florida complete whole sequences of chemistry courses, such as general and organic chemistry, before the transfer. Even though courses may carry the same common course number, topics may vary sufficiently from school to school to leave the transfer student ill-prepared to proceed within a sequence.

Teacher Education Programs:

For information concerning the degree programs for secondary school teachers, see College of Education section this Catalog and junior college teachers, see USF Graduate Catalog.

Requirements for the Combined BA-MA Program:

**Admission**

Regular admission to the program will normally occur towards the end of the sophomore year or early in the junior year, or at transfer from junior college. Students who have completed not less than ten semester credit hours of chemistry courses, and have maintained a "B" average in chemistry courses and overall, may apply. Applications will be considered individually and applicants may be called for interview. Provisional admission may be granted to incoming freshmen whose academic background and performance indicate the likelihood of their meeting the regular requirements in due course. It should be noted that, in view of the heavy research component and orientation of the program,
the limitations of facilities and individual faculty time available for research direction, admission to the program is by no means automatic upon meeting minimum requirements.

**Course Requirements**

Undergraduate: The B.A. coursework curriculum (q.v.) is augmented as follows:

1. CHM 4410, 4412, and 4310C (or CHS 4310C) replace CHM 3400, 3401 and 3402C.

2. Chemistry coursework hours (excluding research) total 40 rather than 39.


Graduate: Not less than 20 credit hours of formal, regularly scheduled chemistry graduate courses, including not less than two of the five core courses (BCH 5065, CHM 5225, CHM 5425, CHM 5621, CHM 6150).

At least 10 of the credit hours must be at the 6000 level. The core course requirement may be waived in part or entirely by recommendation of the supervisory committee on the basis of past work, performance on a test, or substitution of more comprehensive and advanced courses.

**Research and Thesis:**

CHM 4970 (12) CHM 6973 and CHM 6971 (10)

To satisfy the research credit hour requirements and to produce results suitable for publication in a refereed scientific journal, it will be necessary for the student to be enrolled during the summers of his junior, senior and graduate years. Completion of the program will require the presentation and formal defense of a research thesis for the master's degree.

**Supervision and Promotion:**

A supervisory committee consisting of two faculty members will be appointed for each student admitted to the program. A carefully planned individual timetable will be worked out and progress will be monitored each semester. Continuation from the senior year into the graduate year will be contingent upon the maintenance of the "B" average in chemistry and overall, and upon satisfactory recommendation by the student's research director. Diagnostic and qualifying examinations will not be required of students in this program. The supervisory committee during the graduate year will consist of three faculty members, including the research director.

**GEOLOGY (GLY)**

The Department of Geology offers programs leading to the Bachelor of Arts or Bachelor of Science degree, and to a Master of Science degree. Geology is one of the broadest of all sciences because of its dependence on fundamentals of biology, chemistry, mathematics, and physics as applied to the study of the earth. As a result, undergraduate students are expected to obtain a broad background in the other sciences as well as a concentration in geology.

The Bachelor of Science degree program is designed to provide the geology major with a broad foundation that will prepare the student for employment in industry or with various governmental agencies as well as the necessary training to continue study in graduate school. The Bachelor of Arts program is designed primarily for the liberal arts student who has interest in the subject but is not preparing for a career in the field or for the pre-professional school student. A student who elects the B.A. program and decides to pursue the geology profession or attend graduate school will need at least physics and field geology in his/her program.

The graduate program in geology allows the student to specialize in nearly all of the major areas of concentration. Because of the geographic and geologic location of the University in a rapidly expanding urban center of coastal Florida, there is a number of areas of specialization which are being emphasized. These include coastal geology, hydrogeology, low temperature and pollution geochemistry, applied geophysics, geology of carbonate rocks, structural geology, volcanology, and phosphate deposits. All of these are closely related to local problems of the environment.

**Requirements for the B.A. Degree:**

1. Geology Courses (30 sem. hrs.)

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<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>GLY 2010</td>
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<tr>
<td>GLY 2100</td>
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<tr>
<td>GLY 3400</td>
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<tr>
<td>GLY 4200</td>
<td>(4)</td>
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<tr>
<td>GLY 4220</td>
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</tbody>
</table>

A minimum of 2 sem. hrs. from:

GLY 4920 (1)

2. **Supporting Courses** (22-28 sem. hrs.)

   a. CHM 2045 (3) CHM 2046 (3)
   b. CHM 2045L (1) CHM 2046L (1)

   One year of calculus (MAC 2233, 2234 or 3311, 3212, or 3281, 3282). STA 3023 may be substituted for one semester of calculus.

   c. Two courses in biology or physics selected from:

      BSC 2010C (4) BOT 2010C (4)
      ZOO 2010C (4)

      PHY 2050-2050L (4) or PHY 3040-3040L (4)
      PHY 2051-2051L (4) or PHY 3041-3041L (4)

3. **General Distribution Courses** (40 sem. hrs. excluding waivers.)

   The student is required to satisfy the General Distribution requirements of the College of Natural Sciences.

4. **Liberal Education Electives**

   The student must satisfy 15 hours of liberal education electives as described in item 3 of the graduation requirements of the College of Natural Sciences.

5. **Free Electives** (including Distribution waivers) (29-35 sem. hrs.)

**Requirements for the B.S. Degree:**

1. Geology (40-42 sem. hrs.)

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<th>Course</th>
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<tr>
<td>GLY 2010</td>
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<td>GLY 2100</td>
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<td>GLY 3400</td>
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<td>GLY 4200</td>
<td>(5)</td>
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<tr>
<td>GLY 4550</td>
<td>(3)</td>
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</table>

   GLY-prefixed, structured electives (6)

   A minimum of 2 sem. hrs. from:

   GLY 4920 (1)

   Field Geology requirement: GLY 4791 (3) and GLY 4792 (3).

2. **Supporting Courses** (22-26 sem. hrs.)

   a. CHM 2045 (3) CHM 2045L (1)
   b. CHM 2046 (3)
   c. CHM 2046L (1)
   d. MAC 3281 (3) or MAC 3311 (4)
   e. MAC 3282 (3) or MAC 3312 (4)
   f. PHY 3040 (3)
   g. PHY 3040L (1)
   h. PHY 3041 (3)
   i. PHY 3041L (1)

3. **General Distribution Courses** (40 sem. hrs. excluding waivers.)

   The student is required to satisfy the General Distribution requirements of the College of Natural Sciences.

4. **Liberal Education Electives**

   The student is required to complete the liberal education electives of the College of Natural Sciences.

5. **Free Electives** (Including Distribution Waivers) (19-25 sem. hrs.)

   The student will choose, in consultation with his/her Geology adviser, such courses in the College of Natural Sciences that support his/her major interest in the field of Geology. Courses in computer programming and additional Mathematics are of particular value. Those students who anticipate continuing for a doctorate in graduate school are encouraged to take a foreign language, preferably French, German, or Russian.

   All geology majors are strongly urged to take a course in technical writing.

All entering students anticipating a major in Geology are advised to enroll in:

<table>
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<th>Course</th>
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<tr>
<td>GLY 2010</td>
<td>CHM 2045</td>
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<td>CHM 2046</td>
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<td>GLY 2100</td>
<td>CHM 2045L</td>
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<tr>
<td>CHM 2046L</td>
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in the freshman year and to seek curriculum counseling with a Geology adviser.

**Minor in Geology**

A minor in geology consists of 16 credit hours and must include GLY 2010 and 2100. Additional courses, approved by the geology adviser, are designed to complement the student's major program. Only those
courses which are acceptable toward the major in geology may be used toward the minor.

Teacher Education Programs:
Prospective elementary and secondary school teachers desiring to teach science should include basic courses in Geology and related sciences as part of their curriculum.

INTERDISCIPLINARY NATURAL SCIENCES (INS)
The Bachelor of Arts in the Interdisciplinary Natural Sciences major is designed for majors in an interdisciplinary program in the College and for majors in Science Education and Mathematics Education. For information on teacher certification in science or mathematics, prospective teachers should consult the section entitled Teacher Education Programs, and also consult the College of Education section of the catalog.

The requirements for graduation for this degree are the same as those contained in College of Natural Science General Requirements for Degree except that item 1 of the requirements is altered as follows:

la. For Science Education and Mathematics Education Majors only completion of a major consisting of a minimum of 45 hours in College of Natural Sciences courses applicable to a major in the College. In these hours there must be a minimum of 24 credit hours in a discipline of major concentration and a minimum of 16 credit hours in supporting courses outside the discipline of major concentration. At least two of the supporting courses must be at the 3000 level or above. The student must earn a grade of "C" or better in each course in the major concentration and in each supporting course.

lb. For College of Natural Sciences Majors only completion of a minimum of 45 credit hours in College of Natural Sciences courses applicable to a major in the College. In these hours there must be a minimum of 24 credit hours in a discipline of major concentration and a minimum core of supporting courses comprising a calculus sequence and the introductory science sequence from each department in the College outside the discipline of major concentration. Courses in the supporting core must be taken from the following:

BSC 2010C and one of the following:

BOT 2010C
ZOO 2010C
MCR 3010C
CHM 2045
CHM 2045L
CHM 2046
CHM 2046L
GLY 2010
GLY 2100
MAC 2233
MAC 2234 or MAC 3311
MAC 3312
MAC 3313 or MAC 3312
MAC 3313 or MAC 3312
MAA 4211
MAA 4212
MAC 3312 (formerly MAC 3412)
MAC 3313 (formerly MAC 3413)
MAP 4302
MAS 4301
MAS 4301
MAT 4937
STA 4442
STA 5206

The student must earn a grade of "C" or better in the major concentration and in each supporting course.

MATHMATICS (MTH)
The Department of Mathematics offers a diversity of courses designed not only to enable the student to pursue a profession in mathematics itself, but also to enhance his competence in the fields of engineering, the physical sciences, the life sciences, and the social sciences. The department offers programs leading to the B.A., M.A., and Ph.D. degrees. The undergraduate program emphasizes the broad nature of modern mathematics and its close associations with the real world. The program is designed to prepare students for entry into graduate school or careers in industry or secondary education.

The department has a flexible Ph.D. program which is designed to encourage students to take an active role in the shaping of their own curricula. This flexibility is coupled with a desire to promote interdisciplinary research. In cooperation with the Departments of Marine Science and Physics, and the Colleges of Engineering and Medicine, the department offers special Ph.D. programs in the applications of mathematics. While programs in the more traditional areas of pure mathematics are offered, the department is committed to emphasizing applied mathematics at both the graduate and undergraduate levels. For both undergraduate and graduate work, students and faculty have access to the University's computers, an IBM 3033 and 3081, and to the college's Harris minicomputers.

The Department of Mathematics consists of 31 full-time faculty members, whose areas of interest include algebra, applied mathematics, applied statistics, approximation theory, celestial mechanics, complex analysis, functional analysis, graph theory, harmonic analysis on Lie groups, logic, mathematical physics, nonlinear functional analysis, number theory, ordinary differential equations, partial differential equations, probability theory, real analysis, statistics, theoretical computer science, and topology.

Requirements for the B.A. Degree
The courses taken to satisfy the requirements below will constitute the major program referred to in the general graduation requirements of the College of Natural Sciences.

1. Mathematics Requirement (Min. 46 cr. hrs.)

Majors must complete the following core courses:

COP 3215 Computer Applications of Mathematics -6A (3)
MAA 4211 Advanced Calculus I -6A (4)
MAA 4212 Advanced Calculus II -6A (4)
MAC 3311 (formerly MAC 3411) Calculus I -6A (4)
MAC 3312 (formerly MAC 3412) Calculus II -6A (4)
MAC 3313 (formerly MAC 3413) Calculus III -6A (4)
MAP 4302 Differential Equations -6A (3)
MAS 3103 Linear Algebra -6A (3)
MAS 4301 Elementary Abstract Algebra -6A (3)
MAT 4937 Mathematics Majors Seminar -6A (2)
STA 4442 Introduction to Probability -6A (3)

In addition, majors must complete four (4) courses (including one sequence) from the following electives:

COP 4216 (3) MAA 5306-5307 (6)
MAD 5101 (3) MAA 5405-5406 (6)
MAD 5305 (3) MAD 4124-4401 (4)
MAP 5205 (3) MAP 5316-5317 (6)
MAS 5107 (3) MAP 5407-5345 (6)
MAS 5215 (3) MAS 5311-5312 (6)
MHF 5302 (3) MTG 5316-5317 (6)
MTG 4212 (4) STA 4442-4321 (6)
STA 5206 (4) STA 5166-5167 (6)

Majors in mathematics for teaching should consult the section Mathematics (MAE) on mathematics requirements.

The following is a suggested course program for the first two academic years:

Semester I
Freshman Year
MAC 2132
MAC 2132
Sophomore Year
MAC 3311
MAC 3312

Students with a strong background in high school mathematics may omit MAC 2132. Students with a strong background in algebra, but who are deficient in trigonometry, should take MAC 2114 instead of MAC 2132.

2. Mathematics-related Courses (6-8 cr. hrs.)

Majors, except for majors in mathematics for teaching, must take two courses with laboratories in the College of Natural Sciences, outside the Department of Mathematics, that are required courses for some major within the college.

Majors will not receive credit toward graduation for the following courses:
The University of South Florida offers a four-year program leading to a baccalaureate degree, essential preparation for certification as a medical technologist. For information concerning the degree programs for secondary school teachers, see junior college teachers section in USF Graduate Catalog.

**Mathematics Minor**

Although open to all students, the minor in mathematics is designed particularly for students in science and engineering who wish to enhance their mathematical capabilities to benefit their major. A student wishing to receive a minor in mathematics must take the following courses:

- Total credit hours required: 29 (minimum)
  - COP 3215 Computer Applications of Mathematics -6A (3)
  - MAA 4211 Advanced Calculus I -6A (4)
  - MAA 4212 Advanced Calculus II -6A (4)
  - MAC 3311 (formerly MAC 3411) Calculus I -6A (4)
  - MAC 3312 (formerly MAC 3412) Calculus II -6A (4)
  - MAC 3313 (formerly MAC 3413) Calculus III -6A (4)
  - MAS 3103 Linear Algebra -6A (3)
  - MAS 4301 Elementary Abstract Algebra -6A (3)

In addition, students wishing to receive a minor must take two courses with laboratories in the College of Natural Sciences, outside the Department of Mathematics, that are required courses for some major within the college.

**Honors Program in Mathematics**

The program is designed for students who wish to obtain a B.A. degree that will indicate unusual strength in the field of mathematics. Successful completion of the program will be prominently displayed on the student's diploma and will be recorded on the official U.S.F. transcript of the student's work.

Students are eligible for admission to the program when they (a) have completed MAS 3103 (Linear Algebra), MAA 4301 (Elementary Abstract Algebra) and one of the calculus sequences MAC 3281-3283 or MAC 3311-3313, (b) have at least a 3.0 overall average in their college courses, and (c) have at least a 3.5 average in their college mathematics courses. Applications are submitted to the undergraduate committee of the mathematics department.

The requirements for a B.A. Degree in Mathematics with Honors are as follows:

1. Successful completion of the requirements for a B.A. Degree in Mathematics.
2. Six credits of those graduate level mathematics courses at U.S.F. that are prerequisites for qualifying examinations required by mathematics graduate programs.
3. At least two credits in MAT 4939, Mathematics Honors Seminar.
4. Successful completion of MAT 4970, Mathematics Senior thesis.
5. An overall 3.0 G.P.A., with at least a 3.5 G.P.A. in all mathematics courses.

**MEDICAL TECHNOLOGY (MET)**

Medical Technology is one of the growing professions associated with the advances in modern medical science. Working in the clinical laboratory, the medical technologist performs chemical, microscopic, bacteriologic, and other scientific tests to help track the cause and treatment of disease. This talent requires specialized training and a baccalaureate degree is essential preparation for certification as a medical technologist.

The University of South Florida offers a four-year program leading to the Bachelor of Science degree in Medical Technology. A student electing to major in Medical Technology will spend the first three years of the program on the campus of the University of South Florida; the fourth year (12 months) will be spent in one of the affiliated hospitals or clinical laboratories. Admission to the fourth year is limited by the number of openings in the affiliated hospitals. Selection of interns is made by the hospitals.

During the first three years, the medical technology student will complete the liberal arts and basic science requirements for entrance into the fourth year of the program for clinical training. To remain in good standing as a Medical Technology major during this period, a reasonable grade point average, determined by the College of Natural Sciences, must be maintained. To be eligible for entrance into the program's fourth year, the student must have completed not less than 90 credit hours of work (excluding physical education courses). Of these hours, at least 20 credit hours must be from the College of Natural Sciences (in courses approved by the Director of the Medical Technology Program). The following courses must be included in the three years of work which precedes the fourth year of clinical training.

1. **Biological Sciences**
   A minimum of 16 hours is required with at least one course in microbiology and one course in immunology. Physiology APB 3700 or PCB 4743C and Determinative Bacteriology (MCB 4115) are strongly recommended.

2. **Chemistry**
   A minimum of 18 hours is required including one semester of Elementary Organic Chemistry (CHM 3200, CHM 3210L) and one semester of Elementary Analytical Chemistry (CHM 3210C). Biochemistry (BCH 3033) and Clinical Chemistry (CHS 4300) are strongly recommended.

3. **Physics**
   A minimum of 8 hours (one full-year majors-type course) is required.

4. **Mathematics**
   A minimum of 6 hours including at least one course at the level of College Algebra (MAC 1132) or Elementary Calculus I (MAC 2233) is required. Statistics (STA 3122 or STA 3023) is required.

5. **General Distribution Requirements**
   Courses satisfying the general distribution requirements of the College of Natural Sciences.

6. **Courses in non-science fields to insure a broad background.**
   Upon successful completion of this curriculum, recommendation by the College, and acceptance by one of the affiliated hospitals or clinical laboratories, the student will complete 12 continuous months of training at that hospital or laboratory.

   This training period usually begins in early August or September of each year. During this period, one will continue to be registered as a full-time student of the University and will receive a total of 30 credit hours of work in:
   - MLS 3031
   - MLS 4309
   - MLS 4605C
   - MLS 4215
   - MLS 4405
   - MLS 4625C
   - MLS 4216
   - MLS 4545

   These courses will be taught at the hospital or clinical laboratory. Students successfully completing this program will be granted a Bachelor of Science degree in Medical Technology.

**PHYSICS (PHY/PHS)**

The Department of Physics offers programs leading to a Bachelor of Arts or a Bachelor of Science degree, and to a Master of Science degree. Both thesis and non-thesis programs are available for the M.S. degree.

Qualified graduate students with appropriate backgrounds may obtain a Ph.D. in Applied Mathematics or Engineering Science. An interdisciplinary arrangement with the Department of Mathematics and with the College of Engineering provides for such an opportunity. Students should consult with the Physics Graduate Adviser for details.

Special courses may be offered upon sufficient demand. Modern excellently equipped classrooms and laboratories provide an outstanding environment for students.

At the graduate level, research areas include theoretical and experimental plasma physics, theoretical and experimental solid state physics, experimental gaseous electronics, elementary particle theory, environmental science and medical physics. Supporting facilities include IBM 3081D and 3033N computer systems, a Tektronix 4501 graphics systems terminal located in the Physics Building, an excellently equipped machine shop and electronics shop, a glass-blowing shop, an electron microscope, and an x-ray photoelectron spectrometer. Teaching assistantships and financial aid are available through the College.
Requirements for the Baccalaureate Degrees:

1. Physics Courses

**B.A. PHYSICS (PHY)** (34 cr. hrs.)
- PHY 3040 1 (3)
- PHY 3040L 1 (1)
- PHY 3041 1 (3)
- PHY 3041L 1 (1)

**Physics Electives** (6)
- PHY 3040L 1 (1)
- PHY 3041L 1 (1)
- PHY 3041L 1 (1)
- PHY 4224 (3)
- PHY 4910 (1)
- PHY 4930 (1)

**B.S. PHYSICS (PHS)** (44 cr. hrs.)
- PHY 3040 1 (3)
- PHY 3040L 1 (1)
- PHY 3041 1 (3)
- PHY 3123 (3)
- PHY 3223 (3)
- PHY 3323C (4)
- PHY 3822L (2)
- PHY 4224 (3)
- PHY 4324C (4)
- PHY 4526 (3)
- PHY 4604 (3)
- PHY 4823L (2)
- PHY 4910 (1)
- PHY 4930 (1)
- PHY 5405 2 (3)

1. The sequence PHY 2050 (3), PHY 2050L (1), PHY 2051 (3), and PHY 2051L (1) may be substituted for the sequence indicated.
2. Substitutions permitted subject to approval of adviser.

2. Supporting Courses in the Natural Sciences

**B.A. and B.S. PHYSICS** (20 cr. hrs.)
- CHM 2045 (3)
- CHM 2046 (3)
- MAC 3311 1 (4)
- MAP 4302 (3)

3. General Distribution Requirements
   (40 cr. hrs. excluding waivers)
   The student is required to complete the general distribution requirements of the College of Natural Sciences. Selection of a foreign language, preferably French, German, or Russian is also strongly recommended.

4. Liberal Education Elective
   The student must satisfy 16 hours of liberal education electives as described in item 3 of the graduation requirements of the College of Natural Sciences.

5. Free Electives
   (Including general distribution waivers) to complete a 120 hour program.

**Teacher Education Programs:**
For information concerning the degree programs for secondary school teachers, see Teacher Education Programs this college; for junior college teachers, see USF Graduate Catalog.
NEW COLLEGE OF USF

New College of the University of South Florida, located on USF's Sarasota campus, is a distinguished residential college that serves as the honors college of the State University System. It offers a nationally recognized liberal arts education at regular state tuition rates. The New College student/faculty ratio is approximately 10:1; ninety-four percent of the faculty hold earned doctorates. Students work closely with faculty members in small classes, tutorials, and on individual projects. Study at New College culminates in a senior thesis.

Admission criteria are highly selective. The College looks for students who have demonstrated above average ability, academic motivation and self-discipline. About half the students are from Florida. Admission is based on ACT or SAT scores, teacher's recommendation and school report. An interview is strongly recommended. Transfer students may have the number of semesters required for graduation reduced through the awarding of transfer credit for college-level work done elsewhere.

The New College Natural Science laboratories, open to students around the clock, feature many research-grade instruments, including a scanning electron microscope. The College has special access to significant biological field research sites in the Sarasota area. Computer facilities available to students range from "user friendly" Macintoshes to an IBM main frame. Campus-based studies can be supplemented by off-campus field research and internships, and by study abroad. The College participates in the Florida State University Study Centers in London and Florence, as well as in other programs, and has exchange programs with the University of Glasgow and University College Dublin.

The New College Natural Science Library contains a collection of over 170,000 volumes. The library is linked through inter-library loan to the USF system of over one million volumes, and to a network of thousands of other libraries. It also subscribes to computerized databases that extend its reach beyond the region. The New College Natural Science laboratories, open to students around the clock, feature many research-grade instruments, including a scanning electron microscope.

The College has special access to significant biological field research sites in the Sarasota area. Computer facilities available to students range from "user friendly" Macintoshes to an IBM main frame.

Campus-based studies can be supplemented by off-campus field research and internships, and by study abroad. The College participates in the Florida State University Study Centers in London and Florence, as well as in other programs, and has exchange programs with the University of Glasgow and University College Dublin.

Areas of Study

All programs at the College lead to the Bachelor of Arts. Students may concentrate in a specific discipline or they may design, with faculty approval, an interdisciplinary concentration. The faculty offers the following areas of study:

- American Studies
- Anthropology
- Art History
- Biology
- Chemistry
- Child Development
- Classics
- Cognitive Science
- Computer Science
- Economics
- Environmental Studies
- Fine Arts
- History
- Languages
- Latin American Studies
- Literature
- Mathematics
- Medieval & Renaissance Studies
- Music
- Philosophy
- Physics
- Political Science
- Psychology
- Public Policy
- Religion
- Sociology
- Urban Studies

Elementary through advanced studies in French, German, Russian, Spanish, Latin and Greek language and literature.

Study at New College leads to a wide range of careers. Graduates from New College go to medical, dental and law school. A large number do graduate work in the arts and sciences, leading to teaching, research and careers in government and industry. Others obtain advanced degrees in business, education, religion and architecture. Those not going on for advanced degrees have launched successful careers in journalism, fine arts, retailing, management, finances, environmental planning and a host of other fields. Quite a few have become entrepreneurs, founding businesses of their own based on skills acquired while students.

The Academic Calendar and Residence Requirements

The New College calendar consists of two 15-week semesters and a four-week independent study period in January. Fall semester begins in late August and ends just before Christmas. Spring semester begins the first week in February and ends in late May. Enrollment at New College is full-time.

Students may complete the degree in seven semesters—three and one-half years—as a result of New College's longer academic year and the advanced nature of the program. Three Independent Study Projects are carried out during January and/or the summer recess. Students may register for up to two additional semesters if their academic programs require it; they may also take up to two semesters of academic leave during their tenure at the College without loss of scholarship support. By special petition and with summer study, qualified students may complete the degree requirements in three years. All students must complete a senior thesis and pass a baccalaureate examination based upon the senior thesis.

Transfer students may have the number of semesters required for graduation reduced through the awarding of transfer credit for college-level work done elsewhere. The maximum allowable transfer credit is equivalent to three semesters and one independent study project.

Admissions Requirements

New College actively seeks those students who will benefit most from the demanding academic program and flexible curriculum. The College looks for evidence of intellectual potential, strong academic preparation, self-motivation and initiative, tenacity, curiosity and concern for others.

Applicants must submit a State University System application, New College supplementary application, official high school transcript, SAT or ACT scores, teacher's recommendation and school report. An interview is strongly recommended. Transfer applicants must also submit transcripts from all colleges or universities they have attended.

New College welcomes transfer applicants. A growing number of students come to the College from Florida's two-year community colleges.

New College tuition is the same as for other institutions within the State University System. During the first two semesters of study, students are considered lower level for fee purposes; for the remaining semesters, they are considered upper level.

This low tuition is made possible through generous annual grants to the University by the New College Foundation.

Both need-based financial aid and merit-based scholarships are available to New College students, and about 75% of the students receive some type of direct financial assistance. Students must apply for need-based aid and for USF scholarships. Merit scholarships from the New College Foundation are awarded by the New College Admissions Of-
New College of USF

Office to those students the College believes will make an outstanding contribution to the New College community.

The New College Admissions Office processes applications on a rolling basis, with decisions beginning about December 1. Students applying for need-based financial aid and USF scholarships must apply by February for the fall semester.

Application forms and literature can be obtained from the New College Admissions Office, 5700 N. Tamiami Trail, Sarasota, Florida 34243. Phone (813) 355-2963 or 355-7671, ext. 201.

Student Life

New College is a residential college, with the majority of its students living on campus or in adjacent neighborhoods. All students attend full-time. Students are challenged to accept major responsibilities for the direction of their own affairs, including their social and extracurricular activities. The Student Affairs Office, through its professional staff, is responsible for personal counseling, housing, health services, and other support services.

All first-year students live on campus and participate in the community dining plan. Upper-class students may choose College or non-College housing.

A medical plan gives students access to a physician.
The College of Nursing is committed to the improvement of nursing and health care services through its educational programs, community service, and related research activities. In order to carry out its commitment in nursing education, the college offers an upper division competency-based program that leads to a Bachelor of Science degree with a major in nursing.

The program provides for (a) generic students (qualified students with no previous preparation in nursing), and (b) registered nurses, who are graduates of diploma or associate degree nursing programs. The program is designed so that generic students with appropriate preparation equivalent to two years of college can enroll in the nursing major and complete requirements for the degree in four semesters and a summer session of full time study on the Tampa campus. The curriculum is also designed so that registered nurses are provided with: (a) choices in learning experiences for those with special areas of interest and preparing for a shift in career goals to focus on leadership in nursing and the health care system, (b) a variety of opportunities to validate previous education and experience and to demonstrate achievement of program competencies, and (c) opportunities for full-time and part-time enrollment on the Tampa campus or part-time enrollment on the regional campuses at Fort Myers, Sarasota, and St. Petersburg. Registered nurses who attend college as full-time students may complete requirements for the degree in three semesters.

The program is accredited by the National League for Nursing and approved by the Florida State Board of Nursing. Graduates of this program are eligible for admission to examinations leading to licensure to practice as professional nurses in the State of Florida or to apply for licensure to practice in other states. Graduates also have the educational background necessary for graduate study in nursing.

Applications from all qualified applicants are accepted without regard to age, sex, cultural, racial, religious or ethnic background.

The College of Nursing has quota programs in that limitations are set on enrollments on the basis of availability of sufficient qualified faculty, laboratory and classroom facilities, and clinical resources for nursing practice experience for students. Therefore, admissions are based upon selection processes developed by the faculty of the College of Nursing. Florida residents are given priority.

**Professional Nursing**

The health care delivery system is rapidly changing and these changes are creating new demands on health care professionals, including nurses. The primary purpose of the College of Nursing is to prepare professional practitioners who can function in a variety of settings to assist clients/patients in maintenance and promotion of health, prevention of disease and restoration to an optimal level of functioning in society.

The faculty believe that man is a holistic being who lives in an ever-changing environment. Throughout the life span, man functions as an individual in a variety of systems, including family, community and society. The potential for wellness at any given point in time is influenced by factors such as: ability to meet needs, cultural determinants, value systems, socioeconomic states, religious beliefs, and interaction with environment. Nursing practice is influenced by environmental variables which make an impact upon professional nursing practice and health care delivery.

Nursing is a professional discipline which demonstrates a set of scholarly, pedagogical, social and political practices carried out by a professional community. Nurses are responsible for performing professional services on the basis of a body of knowledge which is continuously expanding through research.

The conceptual framework for the curriculum is derived from the philosophy and purposes of the College of Nursing. Man, health, environment and nursing are the major concepts from which subconcepts relevant to the profession of nursing are identified. Nursing process, a method of scientific inquiry, provides for the implementation of nursing care in primary, secondary and tertiary care settings.

**Goals of the University of South Florida College of Nursing**

The College of Nursing is committed to providing a climate of excellence for the acquisition and utilization of knowledge in programs of studies which foster inquiry, autonomy, responsibility and accountability in the preparation of professional nurses. In order to achieve this the College of Nursing will:

1. Attract and retain students who demonstrate potential for leadership in nursing, including those with nontraditional backgrounds who have diverse skills, experiences, and learning preferences.
2. Offer comprehensive curricula that prepare the learner to make an impact on the changing health needs of society.
3. Expand education leading to the first professional degree and at the graduate level, including development of doctoral programs, to prepare nurses to meet predicted societal health care needs.
4. Promote and facilitate life long learning opportunities responsive to students, graduates, faculty, community, and regional needs.
5. Be committed to the advancement of knowledge and its application to nursing and health care of people through collaboration with faculty within the University of South Florida, the Medical Center, and with professionals in other health care and community agencies.
6. Promote scholarship and research among students and faculty.
7. Promote faculty development by providing time, resources and programs.
8. Support activities that interpret and promote the role of the professional nurse.
9. Plan for the establishment of a center for research which will provide a resource for the nursing community.

**Undergraduate Education in Nursing**

Qualified students with no previous preparation in nursing, and registered nurses who are graduates of associate degree or hospital programs are eligible for admission. Students may complete all requirements for admission to the College of Nursing through enrollment at the University of South Florida, or they may complete the University’s general education distribution requirements and College of Nursing admission prerequisites elsewhere and transfer to USF for the nursing major. College graduates and transfer students from other baccalaureate nursing programs are also eligible for admission to the major.

Lower division students who enroll at USF are admitted to the Division of Undergraduate Studies. They must meet the same requirements as other applicants for admission to the University, and should follow the admission procedures outlined elsewhere in this Catalog.

Transfer students seeking admission to the College of Nursing must also apply for admission to the University. Applications for admission to the University may be obtained by contacting the Office of Admissions, University of South Florida, Tampa, Florida 33620. Transfer students may not be admitted to the College of Nursing unless they are eligible for admission to the University. Official transcripts certifying completion of all requirements for admission must be available to the College of Nursing before admission will be confirmed and enrollment permitted.

At the present time, one class of general students is admitted in the fall semester of each year. The deadline for University application is January 4 of the year in which the student enrolls. Applications are available from the Office of Admissions, University of South Florida, Tampa, Florida 33620. In addition, a separate application must be submitted directly to the College of Nursing no later than February 1. College applications are
available from: College of Nursing Undergraduate Admissions, University of South Florida, Tampa, Florida 33612.
Registered nurse students may be admitted to the College on a more flexible basis contingent upon completion of admission prerequisites and requirements, and the available of the appropriate sequence of nursing courses on the campus to which they are seeking admission. The deadline for receipt of an application from registered nurse students is at least one (1) semester in advance of the semester in which they intend to enroll. For more specific information contact the College of Nursing Undergraduate Admissions Office.

Honors Program
An Honors Program in Nursing is available for highly qualified students. Emphasis is on individual research and creative scholarship and each student is required to complete and defend orally an undergraduate thesis.

GENERAL REQUIREMENTS
Admission Requirements and Course Prerequisites

Overall Requirements
1. Completion of 60 semester hours of college-level work with a cumulative grade-point average of 2.5. Credit received on the basis of CLEP or Advanced Placement examinations or other appropriate procedures may be included to meet some of these requirements.
2. Completion of the University of South Florida general education distribution requirements as part of the above. These requirements may be satisfied by the completion of 40 semester hours in the following areas with not less than 6 semester hours in each area:
   a. English Composition
   b. Humanities/Fine Arts
   c. Mathematics/Quantitative Methods*
   d. Natural Sciences*
   e. Social Sciences*
3. Students with an A.A. degree (other than in nursing) will be considered to have met all of the USF General Education Distribution requirements but also must meet specific college requirements in the areas marked "**".

Admission Requirements
In order to be considered for admission to the college, the applicant must:
1. Have submitted application to USF by the appropriate deadline.
2. Have submitted application and all supporting materials, including transcripts, to the College of Nursing by the appropriate deadline.
3. Have a minimum grade point ratio of 2.5 with a grade of "C" or better in each prerequisite Course.
4. Be able to complete prior to enrollment in the major all those general education and specific prerequisites required for admission to the major.
5. Have completed all prerequisites with not more than two (2) repeated courses and not more than one (1) repeat of any given prerequisite course.
6. Have completed the College Level Academic Skills Test and the writing and computation course requirements of 6A-10.30.
7. Have completed an approved cardiopulmonary resuscitation (CPR) course. (Generic students must have completed also a course in First Aid.)
8. Provide evidence of computer literacy.
9. Have current licensure in Florida if enrolling in the program as a registered nurse.
10. Have one year’s work experience in nursing if enrolling in the program as a registered nurse.
In addition to the minimum requirements listed above, applicants will be evaluated on factors which are relevant to program completion and professional nursing practice: cumulative grade point average, performance in specific courses, and ability to communicate verbally and in writing. All applicants who appear to be eligible for admission may be interviewed.

Those applicants with the highest total rankings are accepted in order until the quota is filled. As vacancies occur prior to the enrollment date, those next on the list are accepted to fill them. Enrollment of all students is contingent upon verification through official transcripts of satisfactory completion of all requirements for admissions.

Specific Course Prerequisites
The College of Nursing requires certain courses within the general education distribution for the natural, social and behavioral sciences, and mathematics. These requirements are outlined below. The student must:
1) earn a grade of "C" or better in each course, 2) repeat no course more than once, 3) repeat no more than two (2) courses. Suggested courses are also included. Courses taken at another institution will be evaluated individually on the basis of content. Students in Florida community colleges can obtain information about equivalent courses from their counselors or by contacting the College of Nursing Undergraduate Admissions Office (813-974-2191).

1. Mathematics/Quantitative Methods: completion of at least one course in mathematics and one course in statistics.
   a. Mathematics - one course in college level algebra must be completed with a grade of "C" or better. CLEP subject exams are acceptable.
   b. Statistics - one course in statistics must be completed with a grade of "C" or better. STA 3122
2. Natural Sciences: minimum of 14 semester credits (excluding anatomy, microbiology, and physiology). Each course taken toward meeting this requirement must have been completed with a grade of "C" or better. At least one course must include a laboratory or have a prerequisite laboratory course. At least 6 semester credits must have been completed by the admissions application deadline.
   a. Biology - minimum of 6 semester credits. Courses should include content in 1) cell theory, 2) biological transport, 3) genetics, 4) evolution, 5) phylogenetic survey of plant and animal kingdoms, 6) ecology, etc. CLEP is acceptable.
   b. Chemistry - A minimum of 6 semester credits. Courses should include content in 1) principles of chemistry, 2) structure of matter, 3) atomic and molecular structure, 4) states of matter, 5) chemical formulas and nomenclature, 6) solutions, 7) chemical kinetics and equilibirium, 8) theory and practice of quantitative analysis, 9) organic chemistry. Can be partially met with CLEP.
   c. Other - the remaining credits can be earned by completing additional courses in biology and chemistry, or in genetics, physics, physical science, etc. (A course in non-quantitative physics is recommended but not required.)
3. Social Sciences: completion of each of the following with a grade of "C" or better in each course.
   a. American government - one course in modern American government or state and local government. CLEP is acceptable. POS 2041, POS 2112, PAD 3003, POT 4204, POS 4424
   b. Individual and Social/community behavior: completion of at least three courses with at least one course in psychology and one course in sociology and one additional course in psychology, sociology, anthropology, gerontology or human sexual behavior. CLEP is acceptable.
4. Supporting Sciences: All courses must be completed prior to enrollment in the nursing major with a grade of "C" or better in each course.
   a. Microbiology - one course. CLEP is not acceptable. APB 3110 or MCB 3010C
   b. Anatomy and Physiology - one course. A combined course in anatomy and physiology which is equivalent to PCB 3700 is acceptable or individual courses.
   c. Nutrition - one course. College of Nursing Challenge Examination or University of Florida correspondence course are acceptable. HUN 3201
   d. Human Growth and Development (Life Span) - Must include birth through aging process to death. CLEP is not acceptable. HUS 4020 or DEP 3103 and GEY 3000 or DEP 4005 and GEY 3000.
N.B. Each of the above supporting science courses is not offered every
In accordance with University policies, College Level Examination Program (CLEP) general and subject examinations may be taken in several areas. The CLEP general examinations apply toward the distribution requirements at USF, and successful performance results in credit for any one or all five of the required areas. In addition, credit may be earned for a number of College of Nursing prerequisite courses, including: American Government, English Composition, Biology, Chemistry, and Statistics. Additional information may be obtained from the Office of Evaluation and Testing, University of South Florida.

ACT/PEP and College of Nursing Examinations

Successful completion of the following examination(s) can be used to fulfill course requirements as designated below:

1. College of Nursing - Nutrition Challenge Examinations: a total of 3 semester credits can be earned by any undergraduate student to meet the course requirement in nutrition. Information about the college examination in nutrition may be obtained by contacting the College of Nursing Undergraduate Admission, University of South Florida.

2. Registered nurses who are graduates of diploma programs may receive 20 semester general elective lower level credits through successful completion of the ACT/PEP examinations in nursing. These credits do not apply toward meeting the University requirement of 40 upper level credits, or toward meeting the requirements of the upper level nursing major. The credits earned by passing the ACT/PEP examinations in nursing apply only to the B.S. degree with a major in nursing offered by the College of Nursing. Additional information about the CLEP and ACT/PEP examinations may be obtained from the Office of Evaluation and Testing, University of South Florida.

3. Registered nurses who are graduates of associate degree programs may receive up to 20 semester general elective lower level credits for their previous nursing education.

4. Both generic and registered nurse students may earn up to 6 semester credits and fulfill the college's prerequisite requirement in anatomy and physiology through successful completion of the ACT/PEP examination in anatomy and physiology.

Degree Requirements

Students will be certified for the Bachelor of Science degree with a major in nursing upon completion of a minimum of 126 semester hours composed of general education requirements, science prerequisites (physical, biological, social and political), upper level and nursing electives, and required nursing courses.

A minimum grade of "C" or better must be attained in each course in the major and cumulative grade point ratio of 2.0 or better must be maintained throughout the program. At least 40 semester hours must be upper level work (courses numbered 3000 and above). At least 60 semester hours must be earned from a baccalaureate-granting institution regardless of credit hours transferred from a Community/Junior College unless the student has received prior written approval from the college of his/her intended major.

Nursing Courses - Generic Students

**Junior Year (3 semesters)**
- NUR 3117 - Introduction to Professional Nursing (3)
- NUR 3615 - Nursing Process I (3)
- NUR 3615L - Nursing Intervention I (2)
- NUR 3066C - Client Assesment I (2)
- NUR 3829 - Ethical-Legal Aspects in Nursing and Health Care (2)
- NUR 3456 - Nursing Process II (2)
- NUR 3456L - Nursing Intervention II (3)
- NUR 3536 - Nursing Process III (2)
- NUR 3536L - Nursing Intervention III (2)
- NUR 3067C - Client Assessment II (2)
- NUR 3835 - Leadership-Management Aspects in Nursing and Health Care (2)
- NUR 4285 - Nursing Process IV (1)
- NUR 4256 - Nursing Process V (2)
- NUR 4256L - Nursing Intervention V (4)

**Senior Year (2 semesters)**
- NUR 4165 - Introduction to Research (2)
- NUR 4257 - Nursing Process VI (2)
- NUR 4257L - Nursing Intervention VI (2)
- NUR 4258 - Nursing Process VII (2)
- NUR 4265 - Nursing Process VIII (2)
- NUR 4837 - Nursing Core V (3)
- NUR 4946L - Preceptorship (6)

In addition to the requirements listed above, a minimum of 10 credits in upper level electives will be required for graduation: at least six (6) credits in upper level courses in general education (courses in arts, humanities, natural or behavioral sciences, economics, business or management, education, etc., are acceptable) and at least four (4) credits in nursing electives (NUR 4935, Selected Topics in Nursing, and/or NUR 4905C, Independent Study in Nursing, are currently used for this purpose).

Nursing Courses - Registered Nurse Students

(3 semesters)
- NUR 3007 - Nursing Process (2)
- NUR 3829 - Ethical-Legal Aspects of Nursing and Health Care (2)
- NUR 3117 - Introduction to Professional Nursing (3)
- NUR 3066C - Client Assessment I (2)
- NUR 3654 - Nursing Concepts in Secondary Care (4)
- NUR 3654L - Nursing Practicum I (3)
- NUR 4165 - Introduction to Research (2)
- NUR 4641 - Nursing Concepts in Primary Care (4)
- NUR 4641L - Nursing Practicum II (3)
- NUR 4827C - Leadership/Management Concepts for Nursing Practice (4)
- NUR 4943L - Nursing Practicum III (4)

In addition to the requirements listed above, a minimum of 10 credits in upper level electives is required for graduation: at least six (6) credits in upper level courses in general education (courses in arts, humanities, natural or behavioral sciences, economics, business or management, education, etc., are acceptable) and at least four (4) credits in nursing electives (NUR 4935, Selected Topics in Nursing and/or NUR 4905C, Independent Study in Nursing, are currently used for this purpose).
COLLEGE OF SOCIAL & BEHAVIORAL SCIENCES

The social and behavioral sciences are primarily concerned with human beings: their history, their individual behavior, their social and political institutions, and their manifold problems. The study of man by the broadly-conceived methods of science contributes to an understanding of the individual in a social context. Such insight provides an essential component of a liberal education by instilling a more enlightened world view and by helping the student to become a better informed citizen realistically prepared for a fulfilling role in contemporary society.

The social and behavioral sciences deal not only with the human but also with the humane. While the basic disciplines are dedicated to the unfeathered search for truth about the human condition, the applied social sciences seek to use the knowledge gained to alleviate significant social problems. The setting of the University in the rapidly expanding Tampa Bay metropolitan area provides exceptional opportunities for the development of urban related applied social science activities.

The Human Resources Institute of the College of Social and Behavioral Sciences was established to address critical issues in the human resources sector through a comprehensive program of research and service. By authorization of the Board of Regents, a Program of Emphasis in Human Services was established at the University of South Florida for the enhancement of selected programs including several in the College of Social and Behavioral Sciences. With a virtually even balance of basic and applied programs, the College is uniquely structured to allow the student to gain the general knowledge necessary to pursue graduate education as well as to gain experience and background for future applications in human service fields, in government, in business and in other fields of endeavor.

BACCALAUREATE LEVEL DEGREE PROGRAMS

Admission to the College

Admission to the College of Social and Behavioral Sciences is open to students who have been accepted to the University of South Florida and who declare a major in a particular field within the college. The Bachelor of Social Work, however, is a limited access degree program and does require satisfaction of additional criteria prior to admission.

Undergraduate students must submit a formal application for admission to the College. This usually occurs during Orientation and Advising for New Students. This application is also available in the College Office of Academic Programs and Student Records for continuing students. Following admission to the College, students will then be counseled by an academic adviser in his/her major field. Information about majors, departments, programs, advising, and other services of the college may be obtained from the Coordinator of Advising, College of Social and Behavioral Sciences, University of South Florida, Tampa, Florida 33620.

Any student in the University may take courses in the College of Social and Behavioral Sciences. Students in other colleges or adults in the community may select social and behavioral science courses of particular interest.

Honors Programs

Faculty and selected students in the college participate in the University Honors Program. In addition, the College of Social and Behavioral Sciences offers undergraduate honors programs in four fields: Anthropology, History, Political Science and Psychology. Students interested in any of these honors programs should consult the appropriate department for further information.

General Requirements for Degrees

The College of Social and Behavioral Sciences currently offers three undergraduate degrees: Bachelor of Arts, Bachelor of Science and Bachelor of Social Work. Requirements for graduation are summarized as follows:

1. 120 credits with at least a "C" average (2.0) in courses taken at the University of South Florida. At least 60 of these credits must be from baccalaureate degree granting institutions. At least 40 of these 120 credits must be in courses numbered 3000 or above. (A maximum of two credits of physical education courses may be counted toward graduation requirements; no credits in physical education are required.) No more than 9 credits from R.O. T. C. (aerospace studies, military science), may count toward graduation.

2. 40 credits of general distribution courses are required by the University in the areas of English Composition, Fine Arts and Humanities, Mathematics and Quantitative Methods, Natural Sciences, and Social and Behavioral Sciences. (See General Distribution Requirements.) Transfer students with standard AA degrees will be considered to have met the University's General Education Requirements; however, such students who have not gained exposure to each of the five areas are strongly encouraged to make up deficiencies early in their USF careers.

3. 12 credits of courses requiring written assignments of 6000 words, 6 credits of college level math. (Transfer students with AA degrees from Florida public institutions will be considered to have met this requirement.) These courses may be used to satisfy General Distribution Requirements.

4. Completion of a major in a subject or an integrated major, with at least a "C" average (2.0), or 2.75 in the case of Social Work majors. (See following pages for requirements in specific majors offered in the college.)

5. Students graduating with a Bachelor of Arts degree must demonstrate competency in a foreign language.

6. 80 credits outside the major.

7. Credits transferred from other institutions will not be included in the computation of the grade point average for graduation. To be eligible for graduation with honors requires at least 3.5 average in all USF work and all previous college work.

8. A student must complete at least 30 of the last 60 credits in academic residence at USF. The approval of the Dean of the college granting the degree must be secured for any transfer credits offered for any part of these last 60 hours.

9. Satisfactory completion of the College Level Academic Skills Test, and the writing and computation course requirements of 6A+10.30.

Students are encouraged to consult regularly with an academic adviser in his/her major. It must be noted, however, that the student assumes full responsibility for satisfying all University, College, and departmental requirements for graduation.

Students must apply for graduation by the deadline at the beginning of their last term of residence at USF. Students who receive permission to complete requirements for the B.A., B.S. or B.S.W. as transient students should apply for graduation the term after the coursework has been completed.

Advice to Freshmen and Lower Level Transfers

Work with an advisor, plan a schedule each semester of 12 to 18 credits. Each term until you reach 60 hours take:

1. At least one course with writing assignments of 6000 or more words until you have completed 12 credits of such courses. Start with ENC 1101 and 1102 unless you have received CLEP credit for Freshman English.

2. A college level math course (if you are eligible following math testing) until you have completed 6 credits, or a natural science course (suggestions: BSC 2933, CHM 1015, PHY 2038, GLY 2850, GLY 3006,
The College of Social and Behavioral Sciences offers a major in 13 fields as described in the following pages. In addition to the departmental majors, interdisciplinary majors are offered. (See Interdisciplinary Social Sciences, International Studies, and Social Science Education listed below.) Economics offers two majors, one in the College of Social and Behavioral Sciences and the other in the College of Business Administration.

A Bachelor of Arts Degree is offered in the following:
- African and Afro-American Studies (AFA)
- Anthropology (ANT)
- Criminology (CCJ)
- Economics (ECN)
- Geography (GYP)
- Gerontology (GES)
- History (HIT)
- Interdisciplinary Social Sciences (SSI)
- International Studies (INT)
- Political Science (POL)
- Psychology (PSY)
- Sociology (SOC)
- Social Science Education (SSE*)
- Women's Studies (WST)

A Bachelor of Science Degree is also offered.
- Gerontology (GES)

A Bachelor of Social Work Degree (B.S.W.) is also offered.
- Social Work (SOK)

*Offered jointly with the College of Education.

Special Non-Degree Programs

The OFF-CAMPUS TERM PROGRAM offers a wide variety of opportunities for self-designed, supervised educational experiences for credit. This program is presently housed administratively in the Division of Interdisciplinary Social Sciences, and the courses are listed under Off-Campus Term and Social Science Interdisciplinary.

The HUMAN SERVICES courses are designed for students interested in careers in the human sciences and services, and may be taken in conjunction with any major or by special students. These courses are coordinated by the Department of Gerontology, and the courses are listed as:
- HUS 3001
- HUS 4020
- HUS 4700
- HUS 5505
- HUS 3502
- HUS 4100
- HUS 5325
- SOW 4332

Certificate of Interpretation For the Deaf

The College of Social and Behavioral Sciences offers a Certificate in Interpretation for the Deaf for students who want to facilitate the communicative needs of the deaf in our complex society. The certificate program incorporates academic training with practice designed to provide the student with interpreting experiences in a variety of situations. Students seeking this certificate must meet the admission requirements of the University and possess as a minimum the sign language proficiency equivalent of a Level II score on the Quality Assurance Examination for Sign Language. Information and advice about the certificate program may be obtained from the Interpreter Training Program Coordinator in the Department of Communicology. The program is open to students in all colleges.

The certificate program consists of the following courses:
- SPA 4004 (2)
- SPA 4040 (3)
- SPA 4930-003 (3)
- SPA 4363 (4)
- SPA 4930-001 (3)
- SPA 4050-001 (1)
- SPA 4334 (2)
- SPA 4930-002 (3)
- SPA 4050-004 (5)

Approval by the Coordinator of the Interpreter Training Program must be obtained prior to enrollment in this certificate training program. When the student has completed the above requirements, the Coordinator of the Interpreter Training Program will recommend the student for the certificate.

Certificate in Latin American Studies

The College of Social and Behavioral Sciences offers a Certificate in Latin American Studies for students who wish to gain an intensive multidisciplinary understanding of this important area.

A minimum of 24 semester hours is required of all students seeking such a certificate. Of these, at least 15 must be planned around the following core courses:
- GEA 3400 Geography of Latin America
- LAH 3022 Modern Latin America
- CPO 4930 Comparative Government and Politics

The remaining 9 hours must be selected from other specified courses with Latin American content, a list of which is available from the Latin American Studies Coordinator.

In addition, students seeking a Certificate in Latin American Studies must have ability in Spanish, Portuguese, or another major Indo-American language or must have completed no less than two semesters of study in that language, or its equivalent. It is hoped that the student will develop an even higher level of competency in one language and at least a minimum proficiency in a second language.

When the student has completed the above requirements, the Latin American Studies Coordinator will recommend the student for the Certificate, which will be awarded upon the successful completion of all degree requirements for the major.

Information and advice about the certificate program may be obtained from the Latin American Coordinator or the Associate Dean. Only degree-seeking undergraduate students may earn a Certificate in Latin American Studies. The program is open to all majors in all colleges.

Academic Minor Programs

In order to help students develop some concentration in elective work taken in conjunction with their chosen major, the College of Social and Behavioral Sciences offers minors in the following fields: African Studies, Afro-American Studies, Anthropology, Economics, Geography, History, Human Services, International Studies, Manual Communications, Political Science, Psychology, Sociology, and Women's Studies. (See following pages for requirements in specific minors offered in the colleges.) There are certain restrictions that apply to students earning a minor in the College of Social and Behavioral Sciences: (1) students who major and minor in the College of Social and Behavioral Sciences may not use courses in the major for the minor or for general distribution requirements; (2) only degree-seeking students may earn a minor in the social and behavioral sciences; and (3) SSI majors may not earn a minor in any of the social and behavioral sciences incorporated in their contracts. Minors will be certified at the time of graduation.

PROGRAMS AND CURRICULA

ANTHROPOLOGY (ANT)

Anthropology aims at comprehending people as biological and social beings. It is concerned with all forms of people through time and space. One consequence of this broad-ranging view is the presence within anthropology of four branches: physical anthropology, archaeology, cultural anthropology, and linguistics. Exposure to anthropological information
and the cross-cultural perspective produces heightened sensitivity in the student to the world about him/her. This helps the student to adopt an intellectual posture of disciplined skepticism with respect to any scheme which purports to define and account for regularities in human life. In response to an increasing interest on the part of students, an undergraduate focus in applied anthropology has been created to offer the Department's majors the option of including career training as part of their anthropology curriculum. The focus includes emphasis in applied anthropology coursework and a practicum course in which the student applies anthropological method and theory in off-campus settings.

Students majoring in other fields may find anthropology coursework an exciting and valuable supplement to their primary academic interest. A minor in anthropology has been developed with this purpose in mind. The minor program is structured to allow the student maximum flexibility in course selection within a broadly defined progression of anthropological concerns. Thus, the student is able to tailor a minor in anthropology to best suit special wants and needs in the context of an overall curriculum.

The M.A. program, initiated in 1974, was the first in the USA to focus on career training for the practice of applied anthropology. The student pursues major studies in one of three tracks: applied urban and medical anthropology and public archaeology (cultural resources management). In addition to core seminars in each of the four major branches of anthropology required of all students, each track has its own specialty coursework. Each student performs a full-time internship for one semester during which he/she works on a problem mutually defined and negotiated by the student, a faculty advisor, and a professional supervisor from the agency in which the internship is conducted. By 1986 over 100 graduates had been specifically trained for nonacademic employment in governmental and private-sector agencies and organizations. Graduates are employed in administration, program evaluation, planning, and research.

The Ph.D. in Applied Anthropology is the first such program in the USA. Its primary goal is to train students for nonacademic employment in such domains of application as health practice and services delivery, community, regional and international development, and urban planning, design, and services delivery. Training is also provided for those interested in teaching applied anthropology in academic settings. Each student performs a full-time internship for two semesters during which he/she works as a member of the professional staff of a governmental or private-sector agency or organization engaged in problem-solving in the USA or elsewhere. The Ph.D. program, while independent, complements the M.A. program. The deadline for receipt of all application materials for admission in fall Semester is March 1; for admission in either Spring or Summer Semester the deadline is November 1 of the preceding year.

The Center for Applied Anthropology is in the Human Resources Institute, College of Social and Behavioral Sciences. The Center is concerned with applying anthropological knowledge, theory, method, and perspectives to problems of contemporary society. Illustrative areas of activity include human services needs assessment, program planning and evaluation, social and environmental impact assessment, and public policy analysis.

Requirements for the B.A. Degree in Anthropology (ANT)

The major in Anthropology consists of a minimum of 33 credit hours. ANT 2000 is prerequisite to all subsequent courses. ANT 3100, ANT 3410, ANT 3511 and ANT 3610 are required as intermediate level training in the main subdivisions of the field, and ANT 4034 and ANT 4935 complete the specific requirements. Majors are required to complete a minimum of 12 hours of elective coursework, which must be chosen from the 4000-level courses in Anthropology. These courses are listed below. ANT 3511 counts in Area IV (Natural Sciences) of the General Distribution Requirements for non-majors.

Archaeology
ANT 4133 (3) ANT 4172 (3) ANT 4124 (4)
ANT 4153 (3) ANT 4181 (4) ANT 4158 (4)
ANT 4162 (3) ANT 4182 (3) ANT 4180 (4)
ANT 4163 (3)

Physical Anthropology
ANT 4542 (3) ANT 4583 (3) ANT 4586 (3)
ANT 4552 (3)

Anthropological Linguistics
ANT 4620 (3) ANT 4750 (3)

Cultural Anthropology
ANT 4226 (3) ANT 4316 (3) ANT 4462 (3)
ANT 4231 (3) ANT 4326 (3) ANT 4495 (3)
ANT 4241 (3) ANT 4342 (3) ANT 4521 (3)
ANT 4302 (3) ANT 4367 (3) ANT 4705 (3)
ANT 4305 (3) ANT 4432 (3) ANT 4723 (3)
ANT 4312 (3) ANT 4442 (3)

Anthropology majors are urged to become competent readers and speakers of a relevant foreign language, to acquire communicative and quantitative skills appropriate to their interests, and to achieve at least a minimal level of computer literacy. Exceptions to course prerequisites require the consent of the instructor.

Required Core Courses (21 cr. hrs.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 2000</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3511</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3610</td>
<td>3</td>
</tr>
<tr>
<td>ANT 4935</td>
<td>3</td>
</tr>
</tbody>
</table>

Requirements for the Minor in Anthropology

The minor in Anthropology consists of a minimum of 18 credit hours with a "C" average (2.0), distributed among three areas. Students will normally progress through these areas in the order listed below, selecting courses prerequisite or otherwise appropriate to courses desired in subsequent areas. Exceptions to this pattern must be approved by the department's undergraduate adviser. Students are urged to consult with the major and minor student advisers to create the most beneficial specific set of courses.

1. 2000-level required core course (3 cr. hrs.)
   ANT 2000 (3)

2. 3000-level subfield courses (3-6 cr. hrs.)
   ANT 3100 (3) ANT 3511 (3)
   ANT 3410 (3) ANT 3610 (3)

3. 4000-level elective courses (9-12 cr. hrs.) (as described above)

Requirements for the Undergraduate Focus in Applied Anthropology

This sequence is designed for Anthropology majors who wish to include career training as part of their Anthropology curriculum. The student is required to complete the major in Anthropology, including guided training in Applied Anthropology as determined through consultation with the undergraduate adviser.

The student must take ANT 4907 (3), the setting in which the off-campus practicum is pursued. A departmental Letter of Achievement is awarded upon graduation and successful completion of Focus requirements with a "B" average (3.0). Information regarding admission into the Focus program may be obtained from the department undergraduate adviser.

<table>
<thead>
<tr>
<th>COMMUNICOLGY (AUD/AUF/ARH/ARF/SPP/SPF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Department of Communicology does not offer baccalaureate degree programs. Undergraduate students who meet entrance requirements listed in the Graduate Catalog may enroll in a combined undergraduate/graduate program terminating in a master of science degree in Audiology, Aural (Re)Habilitation or Speech-Language Pathology.</td>
</tr>
</tbody>
</table>

Requirements for the Minor in Manual Communications

A Minor in Manual Communications is available to undergraduate students interested in attaining an understanding of the communication problems associated with deafness and developing competency in receptive; and expressive manual language skills.
The minor consists of the following courses:

- SPA 4333 (1)
- SPA 4336 (2)
- SPA 5380 (1)
- SPA 4334 (2)
- SPA 4363 (4)
- SPA 5384 (4)

Departmental approval for the minor must be obtained prior to enrolling in any of the required courses.

**CRIMINOLOGY (CCJ)**

The major in criminology offers students with an in-depth exposure to the total criminal justice system including law enforcement, detention, the judiciary, corrections, and probation and parole. The program concentrates on achieving balance in the above aspects of the system, from the perspective of the criminal justice professional, the offender, and society.

The objective of the undergraduate program in criminology is to develop a sound educational basis for professional training in one or more of the specialized areas comprising the modern urban Criminal Justice System.

**Requirements for the B.A. Degree:**

A minimum of 39 semester hours is required of all undergraduate majors in criminology including the following courses or their equivalents:

- CCJ 3020 (3)
- CCJ 3701 (3)*
- CCJ 4501 (3)
- CCJ 3280 (3)
- CCJ 3620 (3)
- or CCJ 4110 (3)
- CCJ 4621 (3)

*Subject to Departmental approval for required credit.

In addition to the above, a minimum of 15 hours in criminology must be selected by the student to complete the requirements.

Transfer student should be aware that by University regulation they are obligated to establish academic residency by completing the equivalent of an academic year (30 semester hours) in "on-campus" courses. All undergraduate transfer students electing criminology as their major will be required, moreover, to take a minimum of 27 credits in major coursework at the University of South Florida.

These residence requirements are designed to insure that transfer students who subsequently receive their baccalaureate degree from the University of South Florida with a major in criminology will have been exposed to the same body of knowledge in their major as those students who complete all or a major portion of their coursework at the University of South Florida.

Any student who receives a grade of "D" or lower in more than one USF CCJ course will be automatically barred from continuing as a criminology major.

**ECONOMICS (ECN)**

Economics offers a clear, logical way of thinking about complicated business problems as well as contemporary societal issues such as controlling unemployment, inflation, pollution, and crime. The department offers both major and minor programs requiring four courses in basic economic analysis. With elective courses offered in industrial organization, labor economics, international trade, public finance, monetary economics, econometrics, history of economic thought, economic development, comparative economic systems, and other areas, students may tailor their study toward business, teaching, or government service careers. The economics curriculum also provides excellent preparation for those students seeking graduate or professional degrees in social sciences, law, or business.

**Requirements for the B.A. Degree:**

A student may earn a Bachelor of Arts degree with a major in Economics by completing satisfactorily 33 credits in Economics in addition to college requirements. These 33 credits include:

- ECO 2013 (3)
- ECO 4501 (3)
- ECO 2023 (3)
- GEB 2111 (3)
- ECO 3101 (3)
- GEB 3121 (3)
- ECO 3203 (3)

Economics majors working at the regional campuses cannot expect to fulfill all economics course requirements at those regional campuses.

In addition to this core, students are encouraged to select 3000-level courses in several of the applied areas during their junior year. The remaining economics electives must be selected from those upper level courses that provide the type of program that better suits the student's interests and objectives. Not more than 6 hours of credit may be earned in ECO 4905 and ECO 4914.

Students majoring in economics are encouraged to supplement their programs with appropriate courses in other social sciences. Political science, psychology, sociology, and others contribute greatly to an enriched plan of study. Similarly, a variety of courses in economics are designed to permit students majoring in other disciplines to acquire the skills and insights provided in economics.

**Requirements for a Minor in Economics**

Students majoring in Social Sciences, as well as students from other colleges, may minor in economics. Total requirements are:

1. A minor must include these four courses in basic economics:
   - ECO 2023
   - ECO 2013
   - ECO 3101
   - ECO 3203

2. In addition, a minor must include two or more upper level courses taught in the Economics Department (excluding the variable credit courses ECO 4905, 4914, and 4935), bringing the total credit hours in economics to a minimum of 18. GEB 3121, Business and Economic Statistics II, or its equivalent, is acceptable for credit in a minor.

3. Before being recognized as a minor in economics, a student must obtain approval by the adviser in the Economics Department of the courses involved in the student's minor program.

4. A grade point average of 2.0 or better must be achieved in the minor coursework for a student to be certified for graduation with a minor in economics.

5. At least 12 of the required 18 credits must be taken in residence at USF.

**GEOGRAPHY (GPY)**

**Requirements for the B.A. Degree:**

Geography explains the variable character of the earth's surface. The two major divisions of geography are physical and cultural (human). Physical geography includes the study of earth-sun relationships, weather, climate, and natural features of the landscape, such as landforms, soils, vegetation, and hydrology. Cultural geography studies people, their various cultures, levels of technology, and economic activities that operate differentially to alter the natural landscape.

Geography's overriding purpose is to understand the earth as the home of man. A major concern of geography is the wise use of natural, human, and economic resources. Therefore, ecological and environmental considerations are central to the study of geography.

Students are encouraged to take elective credits in a wide variety of disciplines because of the cross-disciplinary approach to geography.

Geographers typically work as urban and regional planners, environmental specialists, map and aerial photographic analysts, and resource managers.

A major in geography consists of 36 credit hours as follows:

**Required core courses (12 credit hours):**

- GEO 3013 (4)
- GEO 3370 (4)
- GEO 4100C (4)

**One of the following (4 credit hours):**

- GEO 4280C (4)
- MET 4002 (4)

**Two of the following (8 credit hours):**

- GEO 3402 (4)
- GEO 4440 (4)
- GEO 4470 (4)
- GEO 4372 (4)
- GEO 4460 (4)
- GEO 4500 (4)

**One course with a GEA prefix (4 credit hours).**

Any additional 8 credit hours in geography, excluding GEO 3000, GEO 3910C.

**Requirements for the Minor:**

A minor in Geography consists of sixteen hours, with a minimum
grade-point average of 2.0. The required courses are:

- GEA 3000 (4)
- GEO 3013 (4)
- GEO 3370 (4)

One upper level elective (GEA, MET, or URP 3000-5000 level) (4).

## GERONTOLOGY (GEY)

Gerontology is the study of the process of human aging in all its many aspects: physical, psychological, and social. In the Department of Gerontology, particular emphasis is placed upon applied gerontology, with the goal of educating students who in their professional careers in the field of aging will work to sustain or improve the quality of life of older persons. To this end the Department offers the degrees of Bachelor of Arts in Gerontology, Bachelor of Science in Gerontology, and Master of Arts in Gerontology.

### Requirements for the B.A. Degree:

The Bachelor of Arts Degree in Gerontology entails 39 semester hours of required course work. In this program the course of study is intended to provide students with a liberal education in gerontology and some exposure to the various career opportunities in the field of aging. This degree is especially appropriate for students who are undecided about their eventual career goals in aging or who plan to pursue graduate work in gerontology or some other field.

#### Required courses:

- MAN 3025 (3)
- GEY 3601 (3)
- GEY 3625 (3)
- GEY 4323 (3)
- GEY 4360 (3)
- HUS 4700 (3)
- GEY 4930 (3)
- GEY 4940 (3)
- GEY 4945 (6)

Plus 3 of:

- MAN 3150 (3)
- HUS 4020 (4)
- SYP 4640 (3)
- GEY 5935 (3)

### Requirements for the B.S. Degree:

The Bachelor of Science Degree in Gerontology is a specialist degree which, in addition to providing students with a basic education in gerontology, is intended to prepare them for entry level positions in Nursing Home Administration. It is especially appropriate for students who intend to begin working immediately following completion of the degree program.

#### Required courses:

- MAN 3025 (3)
- MAN 3150 (3)
- GEY 3601 (3)
- GEY 3625 (3)
- GEY 4323 (3)
- GEY 4360 (3)
- GEY 4940 (3)
- GEY 4941 (3)
- GEY 4945 (6)

Prior to beginning course work in either the B.A. or B.S. option of the degree program, students must have taken certain prerequisites. For the B.A. the prerequisites are: GEY 3000, Introduction to Gerontology and HUS 3001, Introduction to Human Services. For the B.S., the prerequisites are: ACG 2001, Finance and Management Accounting I, ACG 2011, Finance and Management Accounting II, and GEY 3000, Introduction to Gerontology.

The gerontology prerequisite can only be satisfied by a student's having taken GEY 3000 at this university or its equivalent at another institution. The human services prerequisite can be satisfied either by a student's having taken HUS 3001 or an equivalent course at another institution or by having had suitable work experience in the human services. The prerequisites of accounting can be fulfilled by taking ACG 2001 and ACG 2011 at this university or comparable work at another institution.

Students interested in either the B.A. or the B.S. option should contact the Department as early as possible in their careers at the University of South Florida.

### Minor in Human Services

An undergraduate minor in Human Services is available for students interested in pursuing careers in fields such as social welfare, health care and mental health care, rehabilitation, and corrections. This minor may be taken in conjunction with any undergraduate major but it should be particularly beneficial to persons who are majoring in such disciplines as anthropology, criminal justice, nursing, political science, psychology, social work, and sociology. The Human Services courses are closely related to the Urban Community Psychology and Gerontology Program of Distinction and will be taught by qualified faculty from the various disciplines within the College of Social and Behavioral Sciences. The Human Services minor is coordinated by the Department of Gerontology. Requirements for the minor are a total of 15 hours of the following upper-level courses:

- HUS 3001
- HUS 4100
- HUS 4930
- HUS 3502
- HUS 4700
- HUS 4946
- HUS 4020

### Center for Applied Gerontology

The Center for Applied Gerontology is one of five specialized centers in the Human Resources Institute within the College of Social and Behavioral Sciences. The activities of the Center include research on aging, program evaluation, short-term training of agency personnel and other activities intended to complement the educational program in gerontology.

### HISTORY (HTY)

#### Requirements for the B.A. Degree:

A minimum of 32 semester hours is required for a major in history. Two hours, or 2000 level courses, or their equivalent, constitute the lower level requirements. At least 12 hours of course work must be drawn from the 3000-4000 level. HIS 4104 and 4936 constitute the upper level requirements for the degree.

It is recommended that history majors take ENC 3310, "Advanced Expository Writing," SPC 2023, "Fundamentals of Speech Communication," LIS 2001, "Use of the Library," and additional hours drawn from the following disciplines: Afro-American Studies, American Studies, Anthropology, Economics, Geography, Political Science, Interdisciplinary Social Sciences, Psychology, Philosophy, Sociology, Literature, the Humanities, and the Fine Arts. Majors intending to pursue graduate work should take a minimum of two years of classical or modern foreign language.

### Requirements for the Honors Program:

The department's honors program challenges the superior student to achieve academic excellence through individual research and individualized instruction. Admission to the program will be competitive. A maximum of 15 students per year will be selected. They must meet the following criteria: 20 hours (at least 8 at USF) of history courses (3.5 GPA or better), 75 hours total course work (3.5 GPA or better), and recommendation by a USF history faculty member. Honors students will be assigned faculty advisors who will guide their research and the writing of an honors thesis. Students will also participate in an Honors Colloquium. Students interested in the program should contact the departmental undergraduate advisor for details of this demanding and rewarding program.

### Requirements for the Minor:

The Department of History offers two options for students interested in the minor in History. Option one requires four history courses (at least 15 hours) at the 3000 and 4000 levels drawn from a minimum of three of the following fields: a) Ancient; b) Medieval; c) Modern European; d) United States; e) Non-Western; Latin American, Asian, African. Option two entails a 15-hour program organized and contracted by the student and the department around the specific needs of the student's major program. In both plans, a minimum of 8 hours must be completed at the University of South Florida and the student must maintain a 2.0 GPA in the minor. Certification of the minor will be supervised by the department. Students interested in a minor in history are encouraged to see the History department adviser as early as possible in their undergraduate program as possible.

### DIVISION OF INTERDISCIPLINARY SOCIAL SCIENCES (AFA/INT/OCT/SSI/WSP)

The Division of Interdisciplinary Social Sciences offers four academic majors: the College major (Interdisciplinary Social Sciences), and the majors in African and Afro-American Studies, in International Studies.
and Women's Studies. It offers a minor in Women's Studies, a minor in African and Afro-American Studies, a series of interdisciplinary social science core courses, and a series of independent study courses through the Off-Campus Term Program. Requirements for the Interdisciplinary Social Science major, the International Studies Program major and minor, the African and Afro-American Studies major and minor, and the major and minor in Women's Studies are described below.

**AFRICAN AND AFRO-AMERICAN STUDIES (AFA)**

The African and Afro-American Studies Program provides a quality undergraduate education leading to a Bachelor of Arts degree in African and Afro-American Studies. Essentially it is a service program which provides opportunities for all students to broaden the bases of their knowledge of the entire human experience and intercultural understanding so essential to living in a multi-racial society and a world that has become a global village. It provides a new horizon in liberal education that seeks reunification of the knowledge of human experience and strikes at the narrowness and ethnocentrism of the traditional disciplines which tended to contribute much to race prejudice and misunderstanding.

In the interest of general education the program provides a basic and broad knowledge about Africa and peoples of African descent from prehistoric times to the turbulent present. Part of its mission is to assist the black student to achieve a more dignifying identity and fuller participation in the mainstream of his society and nation. It attempts to help him to develop a greater awareness of himself and his talents and to provide him with educational and research opportunities necessary for the acquisition and understanding of political and economic realities and tools that must enable black people and other minorities to become effective determinants of their own political and economic life. To the non-black student the program provides an opportunity to acquire additional perspectives from which to view, analyze and deal with contemporary social issues and political problems.

Admission to the African and Afro-American Studies major is open to all students who have been duly admitted to the University of South Florida by the Office of Admissions and who file necessary papers in the Office of the Coordinator of Advising, College of Social and Behavioral Sciences, to declare a major in the field. All of the program's courses are open to all other students - regular and special - of the University.

**Requirements for the B.A. Degree:**

The major in African and Afro-American Studies consists of a minimum of 36 hours in the field specified as follows:

**Required Core Courses (15 cr. hrs.)**
- AFA 2001 (3)
- AFH 3200
- AMH 3572 (3)

**Required Supporting Core Courses (6 cr. hrs.)**
- AFA 4150 (3)
- PHM 4120 (3)
- AFS 3311 (3)
- ECP 4143 (3)

**Suggested Elective Courses (15 cr. hrs.)**
- AFA 4331 (3)
- INR 4254 (3)
- PUP 3313 (3)
- AFS 4321 (3)
- AFA 4900 (2-3)
- AFA 4931 (1-3)
- HUM 3420 (3)
- CPO 4244 (3)
- CPO 4254 (3)

Electives (9 hours) selected from:
- AFA 4150 (3)
- CPO 4204 (3)
- INR 4254 (3)
- AFA 4931 (1.3)
- CPO 4254 (3)
- PUP 3313 (3)

Division of Interdisciplinary Social Sciences

**Interdisciplinary Social Science Major**

This program of study is designed to provide an interdisciplinary focus in the social sciences for students who are interested in a broad educational experience, that extends beyond the boundaries of a single discipline. This major offers, within certain parameters, students a wide choice of courses, and an opportunity to design a program of study geared toward the student's individual career needs and interests. It should be understood, however, that each program of study has to be designed in such a way that quality and coherence are assured. For these reasons, the program of study is to be planned by the student in consultation with the advisor. Approval of the contract is provided by the advisor.

Specific requirements for a B.A. degree in Interdisciplinary Social Sciences (SSS) include:

1. the completion of 42 approved hours of course work from the College of Social and Behavioral Sciences (CSBS), with a minimum of 30 hours at the 3000 or above level.
2. the student has to choose between two cognate areas (provided below) and complete twelve hours in each, or the student can select one of the more structured curricula available: SSI with an emphasis in (a) Speech and Hearing Science, (b) Urban Studies.
3. it is suggested that the student work out a program of study during the junior year, particularly before too many courses are completed in CSBS. No student should assume, under any circumstances, that courses already completed in CSBS will automatically count toward the SSI degree.
4. students must maintain a minimum grade point average of 2.0 in SSI to graduate.
5. for those highly motivated students, with a minimum grade point average of 3.2, an individualized curriculum can be developed with the approval of the advisor. Under such circumstances core courses and restricted electives may be waived. This course of study will be directed toward the special educational interests of these students. A thesis will be required of students taking this option.

Cognate Areas - You must select two areas, and take 12 hours in each. Cognates A and B must be selected from the areas of study listed below:
- AFA, ANT, CCI, ECN, GEO, GYP, HTY, HUS, INT, LAS, PAD, POL, PSY, SOC, SOW, and WST.

**INTERNATIONAL STUDIES (INT)**

**Requirements for the B.A. Degree:**

The major in International Studies enables students to undertake programs of study which emphasize (a) preparation for careers in international activities, or (b) the study of particular international themes or
The major in Women's Studies provides a well-rounded Liberal Arts education based on the best and most current scholarship on women in many disciplines. Its subject is not only the evolution of historical attitudes, ideologies, and practices concerning women but also an analysis of the current status of different classes, races and groups of women.

Women's Studies offers excellent undergraduate preparation as well for (1) those who wish to apply to law school or to graduate study in a variety of fields, e.g., Urban or Medical Anthropology, Counselor Education, Criminal Justice, Gerontology, History, Rehabilitation Counseling, Social Work, Women's Studies; (2) those who want to focus on women in specific disciplines or professions; and (3) those whose training would benefit from a close scrutiny of the major issues facing women today.

 Majors must complete 33 hours, distributed as follows:

 1. **Required Core Courses** (18 hours)

     | Course   | Credits |
     |----------|---------|
     | WST 211  | 3       |
     | WST 212  | 3       |
     | WST 416  | 3       |
     | WST 430  | 3       |

 2. (3 hours)

     Either WST 3125 or ANT 4302

 3. (3 hours)

     Either REL 3145 or POS 4693 or WST 4320

 4. (9 hours)

     Three electives chosen from the remaining courses listed under Women's Studies, including those not taken under 2 and 3 above.

 Those electing to major in Women's Studies should consult the Program Coordinator for timely scheduling of classes.

**Minor in Women's Studies**

A student wishing to minor in Women's Studies will be required to take five courses:

- WST 1010
- WST 3100
- WST 4100
- WST 4200
- WST 4300

The minor in Women's Studies is basically a name given to a set of International Studies courses taken by a student that approximates one half of the upper level credits required for a major. The minor consists of 18 credit hours made up of six courses as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>WST 211</td>
<td>3</td>
</tr>
<tr>
<td>WST 212</td>
<td>3</td>
</tr>
<tr>
<td>WST 416</td>
<td>3</td>
</tr>
<tr>
<td>WST 430</td>
<td>3</td>
</tr>
</tbody>
</table>

and 3 upper level courses chosen from the International Studies Program's offerings of the Division of Interdisciplinary Social Sciences.

Each student's program must be planned with the International Studies Program major adviser, who is empowered to approve appropriate substitutions when educationally justified.

**Interdisciplinary Core Courses**

Two of these courses, one an introductory course and the other a senior seminar, are taught from an interdisciplinary social science perspective. The courses are designed to introduce students to methodologies in the study of humans in social groups on the one hand, and on the other hand, to bring into some coherence the various concepts, theories and methods studied in the social sciences. Social Science Statistics is also required for majors in Interdisciplinary Social Sciences.

**Off-Campus Term**

The Off-Campus Term Program, described in more detail elsewhere in this catalog, is a University-wide, interdisciplinary program which urges students to spend part of their time in college in pursuits that are self-designed and implemented in an environment entirely off campus and out of the classroom. OCT provides for an "education in life" for full academic credit as an alternative to the traditional methods of learning.

**WOMEN'S STUDIES (WST)**

**Requirements for the B.A. Degree**

The undergraduate program leading to the B.A. degree in political science offers a general purpose degree, and a number of more specialized alternatives. These include the pre-professional plan in political science. The program is designed for students interested in and seeking to understand political problems and issues, and the nature of the political process, as well as the philosophical and legal basis of political structures and processes at local, state, national, and international levels. Satisfying the degree requirements prepares students for positions in the public and private sectors, for law school, for graduate work in political science, international relations, public administration, and related disciplines, for positions in education, and for applied political activity.

Students who earn a B.A. degree in political science should be able to relate knowledge from their major field to other allied disciplines as well as being well-grounded in political science. In fact, it is impossible to understand fully and explain political events and behavior without some knowledge of history, economics, sociology, and other related fields. To aid and encourage political science majors in this endeavor, students must take a minimum of 18 hours in courses from among history, economics, anthropology, geography, sociology, psychology, and philosophy. Six of these should be in history, three in economics, and six from the remaining fields. Six of the eighteen hours must be taken at or above the 3000 level.

A minimum of 37 credit hours is required to satisfy the requirements of the major. Students must take the 13 credit hours of required coursework in political science. No more than six credit hours can be taken from POS 4905, POS 4910, and POS 4941. A GPA of 3.0 is required to enroll in these courses; special exception may be granted by
the chair for students with a GPA between 2.70 and 2.99.

Students transferring credit hours toward a major in political science must complete a minimum of 21 credit hours within the Department, regardless of the number of credits transferred, in order to satisfy the requirements of the major.

The undergraduate curriculum in political science is composed of the following:

**Required Core Courses (13 cr. hrs.)**

- **Field I**
  - POT 3003 (3)
  - POS 3713 (4)
  - INR 3002 (3)

  Students should complete POT 3003 and POS 3713 by the end of the first semester of their junior year; students transferring with 45 credit hours or more must complete these courses within their first two semesters in residence at USF.

- **Field II**
  - Electives from the seven fields (24 cr. hrs.) with at least one course from Field I, one course from Field II or III, and one course from Field IV, V, VI, or VII; no course from a given field or field grouping can be taken until the core course has been completed.

- **Field III**
  - Electives from the seven fields (24 cr. hrs.) with at least one course from Field I, one course from Field II or III, and one course from Field IV, V, VI, or VII; no course from a given field or field grouping can be taken until the core course has been completed.

- **Field IV**
  - Electives from the seven fields (24 cr. hrs.) with at least one course from Field I, one course from Field II or III, and one course from Field IV, V, VI, or VII; no course from a given field or field grouping can be taken until the core course has been completed.

- **Field V**
  - Electives from the seven fields (24 cr. hrs.) with at least one course from Field I, one course from Field II or III, and one course from Field IV, V, VI, or VII; no course from a given field or field grouping can be taken until the core course has been completed.

- **Field VI**
  - Electives from the seven fields (24 cr. hrs.) with at least one course from Field I, one course from Field II or III, and one course from Field IV, V, VI, or VII; no course from a given field or field grouping can be taken until the core course has been completed.

- **Field VII**
  - Electives from the seven fields (24 cr. hrs.) with at least one course from Field I, one course from Field II or III, and one course from Field IV, V, VI, or VII; no course from a given field or field grouping can be taken until the core course has been completed.

The following courses are not included within any of the seven fields, but may still be used as elective hours:

- **Field Work**
  - POT 3003 (3)
  - POS 3713 (4)
  - INR 3002 (3)

Students transferring credit hours toward a minor in political science must complete 12 credit hours within the Department, regardless of the number of credits transferred, in order to be certified for a minor.

**Requirements for a Minor in Political Science**

A minor in political science consists of a minimum of 18 credit hours, made up of two courses (6 credit hours) from among POS 3002 (or INR 3002), POT 2041, and POS 3003. An additional 12 credit hours in regularly scheduled political science courses are required.

- Students transferring credit hours toward a minor in political science must complete 12 credit hours within the Department, regardless of the number of credit hours transferred, in order to be certified for a minor.

**Law and Politics**

- INR 4403 (3)
- POS 3283 (3)
- POS 4970 (3)
- POS 4910 (1-3)
- POS 4936 (3)

**International Affairs Focus in Political Science**

The Department of Political Science offers a number of courses that prepare students for graduate study in International Relations and career opportunities in private or public transnational organizations.

- **Basic courses in the area:**
  - **Introduction to International Relations**
  - **Introduction to Comparative Politics**
  - **American Foreign Policy**

In addition, the Department offers the following upper-level courses:

- **Politics of Developing Areas**
- **Comparative Politics of Selected Areas**
- **Defense Policy**
- **International Policy Economy**
- **International Law**
- **International Organizations**
- **Issues in Comparative Politics**
- **Issues in International Relations**

Students desiring careers in international affairs or international ad-
ministration are encouraged to supplement these courses with courses offered in the Departments of International Studies, Management, Economics, Business Administration, and Foreign Languages.

**PSYCHOLOGY (PSY)**
The undergraduate program in Psychology offers the student a well-rounded liberal arts education, together with the opportunity to gain a special acquaintance with issues such as those concerning people's role in modern society, tactics of social change, personal adjustment, and the individual in the workplace. In addition, the program provides excellent background training for qualified students who wish to pursue graduate work in disciplines such as clinical, experimental, or industrial psychology, education, gerontology, counseling, women's studies, black studies, or community relations. The graduate faculty of the Psychology Department is divided into three broad program areas: Clinical, Experimental, and Industrial-Organizational. Each of these program areas offers Ph.D. level training as well as introductory instruction at the undergraduate level. Members of the graduate Clinical faculty offer coursework and training in the areas of abnormal psychology, developmental psychology, behavioral modification, psychotherapy, personality, psychological assessment, and community psychology. Members of the graduate Experimental faculty provide research experience in the areas of comparative psychology, electrophysiology, learning and conditioning, psychology of language, sensation, human memory, perception, and information processing. Members of the graduate Industrial-Organizational faculty offer instruction in training and evaluation of employees, job motivation and satisfaction, small group analysis, social psychology, organizational theory, human factors, organizational change, and evaluation.

**Requirements for the B.A. Degree**
Majors must complete at least 34 semester hours in the field. All majors must complete:

1. **2000/3000 Level Requirement (6 semester hours)**
   - Successful completion of: PSY 3013 (3 semester hours) and one of the following:
     - INF 3101
     - PSY 3022
     - SOP 3742
     - PSY 2012

2. **Methods Course Requirement (7 semester hours)**
   - Successful completion of: PSY 3213 and one of the following:
     - CLP 4433
     - PSY 4205
   - or another methods course approved by the undergraduate advisor in Psychology.

3. **4000 Level Requirement (21 semester hours)**
   - Successful completion of 7 additional courses numbered at the 4000 level selected as follows:
     - At least two courses from each of the two groups below:
       - **Group I**
         - EXP 4204C
         - EXP 4404
         - PSB 4013C
       - **Group II**
         - CLP 4143
         - INP 4004
         - SOP 4004
       - DEP 4005
         - PPE 4004
     - and 3 additional courses numbered at the 4000 level.
   - Note: No more than a total of 3 hours of the following course may count toward the major:
     - PSY 4913 Directed Research
     - PSY 4205 (3) is recommended for students planning graduate training. Functional mathematics and biological science are recommended. Otherwise, students majoring in psychology are encouraged to complete a varied undergraduate program.

**Requirements for the Minor in Psychology**
A minor in Psychology consists of a minimum of 15 credit hours, comprising PSY 2012, PSY 3013, and any three 4000 level psychology courses except PSY 4913. A GPA of 2.0 or better in the minor is required for certification. The purpose of the minor is to help students majoring in other disciplines to obtain an appropriate psychology background that will complement their work in their major. See the Psychology Department Undergraduate Advisor for suggested minor programs for students majoring in various fields.

**Psychology Honors Program**
The purpose of the Honors Program is to provide a select group of undergraduate Psychology majors an opportunity to undertake an intensive individualized research experience. The culmination of the Honors Program is the completion and defense of an honors thesis. Application for the program will take place during the second semester of the student's junior year, or prior to completion of 90 semester credits. Admission to the program is competitive and based on the student's overall academic record, performance in psychology courses and a letter of recommendation from a member of the Psychology Department faculty. Successful completion of the program requires a GPA of 3.5 in major coursework, an overall GPA of 3.0 at USF and completion of 43 hours in Psychology including PSY 4913 (3), PSY 4932 (6), and PSY 4970 (3). See the Psychology Department Undergraduate Advisor for details of the program and application form.

**PUBLIC ADMINISTRATION (PAD)**
The Public Administration Program offers courses which serve as elective for undergraduate students. Completion of these courses will benefit those students preparing for a career in local, state, or federal agencies of government, non-profit organizations, and special service districts and/or graduate work in public administration and related fields. The courses listed below may be taken for undergraduate credit. Please note that the 5000-level courses listed are available to seniors and graduate students only.

- PAD 3003 Introduction to Public Administration
- PAD 4204 Public Financial Administration
- PAD 5035 Issues in Public Administration and Public Policy
- PAD 5333 Concepts and Issues in Public Planning
- PAD 5605 Administrative Law
- PAD 5612 Administration Regulation
- PAD 5807 Administration of Urban Affair
- PAD 5836 Comparative Public Administration
- URP 5131 Implementation Measures in Urban/Regional Planning

For further information, please contact the Public Administration Program.

*Cross-listed with Department of Political Science.

**REHABILITATION COUNSELING (REF)**
The mission of Rehabilitation Counseling is to help physically, mentally, emotionally, and chemically disabled individuals return to full, rewarding, and productive lives. Rehabilitation Counselors work in a wide variety of settings, but are most commonly employed in public and private rehabilitation programs and facilities, mental health treatment settings, and substance abuse treatment settings. Some establish their own private rehabilitation case management practices or private mental health counseling practices.

Rehabilitation Counseling has roots in both the national rehabilitation movement and professional counseling movement. Training emphasizes psychological, social, medical, and vocational aspects of disability; and also the development and refinement of personal adjustment counseling skills. Graduates with an M.A. degree from the USF Department of Rehabilitation Counseling are prepared for careers as both rehabilitation specialists and mental health counselors. Special elective concentrations in substance abuse and minority rehabilitation are also offered. Other study concentrations can be arranged on an individual basis.

The Department of Rehabilitation Counseling offers only the M.A. degree. However, a five-year master's program is available to undergraduates where an M.A. degree in Rehabilitation Counseling and bachelor's degree in another major (if desired) can be earned in a total program of 150 semester hours. Students admitted through the five-year program (REF) must have completed 90 semester hours of work and all General Distribution requirements. Minimum admission requirements include a total Verbal-Quantitative score of at least 1000 on the GRE.
or a "B" average in all work beyond 60 semester hours. The GRE must be taken by all applicants whether or not they have the 3.0 grade-point average. A detailed description of the M.A. program in Rehabilitation Counseling may be found in the Graduate Catalog.

Undergraduates interested in the five-year program (REF) ideally should contact the department during their sophomore year.

The graduate program in Rehabilitation Counseling is fully accredited by the Council on Rehabilitation Education (CORE), the national accrediting body for rehabilitation counselor training programs. Upon completion of the program, graduates are eligible to sit for the national certification examination of the Commission on Rehabilitation Counselor Certification. After passing this examination, the graduate is registered with the Commission as a Certified Rehabilitation Counselor (CRC). Under Florida's Psychological Services Act, graduates with a master's degree from a recognized counseling program are eligible to sit for state licensure as Mental Health Counselors after completing the Act's work experience requirement. The graduate program offered by the Department of Rehabilitation Counseling is considered a recognized counseling program under the Psychological Services Act.

■ SOCIAL WORK (SOK)

Undergraduate Study
The University of South Florida offers a program leading to a Bachelor of Social Work (B.S.W.) degree in the Department of Social Work, College of Social and Behavioral Sciences. This program has been developed in accordance with the guidelines set forth by the Council on Social Work Education, the national accrediting body for social work education programs, and in accordance with the recommendations of the National Association of Social Workers. The B.S.W. program is fully accredited by the Council on Social Work Education.

The primary objective of the B.S.W. program is the preparation of the graduate for beginning level professional practice as a social work generalist.

The secondary objectives of the B.S.W. program are:
1. to provide for the social work human resources needs of the University service district (the central Florida west coast area), the State of Florida, and the Southeast Region;
2. to prepare graduates for additional professional training at the graduate level in social work or in related human service professions;
3. to provide an exposure to social work as a profession and to contemporary issues in the social welfare field to non-social work majors and others in the community.

In preparing the B.S.W. graduate for beginning professional practice, the curriculum provides the student with an opportunity to develop a generalist skill base as a "paraprofessional" practitioner. Upon graduation, the student will develop an understanding of various interventive methods, and skill in their application to a variety of client systems. For example, interventive methods may take the form of individual and group counseling, resource development, consultation, teaching, advocacy, etc.

Client systems may be individuals, families, groups, community groups, organizations, or social welfare organizations. The student will develop an understanding of the dynamics of human behavior in individual, group and organizational contexts and the influences of the sociocultural environment upon those behaviors. The student will learn about the development of social welfare systems and institutions and the social, economic, and political processes affecting policy development and program implementation. The student will develop an understanding of the utilization of basic social research skills particularly related to the processes of problem-solving, planning, and evaluation.

The student will also become aware of the value base of the profession and engage in a self-examination process as it relates to the development and reflection of ethical and effective professional practice. The B.S.W. program, as any professional program, places great emphasis on the development of a professionally responsible graduate in terms of one's obligations to the client system served, the profession itself, the organization in which one works, and to the general public which ultimately provides any profession with legitimacy.

Enrollment in the B.S.W. program is limited. Unlike many academic programs where the student may declare a major, the B.S.W. program is a limited access program. Students may apply for admission to the program after having satisfied the admission criteria described below.

However, the completion of the prerequisites does not guarantee the student's admission to the program. Limited state funding places constraints on the size of the social work faculty and in order to maintain a high-quality of instruction it is necessary to achieve an appropriate faculty-student ratio. This means that it may be necessary to deny admission to the B.S.W. program solely on the basis of no available space. Any student filing intent to seek admission or actually applying for admission to the program should be aware of this possibility.

Additionally, any student who does not maintain a GPA of at least 2.75 in social work courses while enrolled in the B.S.W. program or who clearly does not exhibit responsible professional behavior, may be subject to dismissal from the program. A social work major receiving a grade of less than "C" in a core course will be required to repeat the course.

Admission to the B.S.W. program is a two-stage process. Any student that holds a minimum of Sophomore standing may declare a pre-social work major. This is done by filing a declaration of major form with the College of Social and Behavioral Science, Records and Advising Office and a similar form with the Department of Social Work. All pre-majors will be assigned to an advisor within the Department who will assist the student in selecting pre-core courses (see listing of pre-core courses.) Many students will have already taken most of the pre-core courses as part of general distribution at USF or in their course of study at a community college. After completing the pre-core courses a student will be ready to apply for admission to the B.S.W. program as a full major. It is necessary to be admitted as a major before taking core social work courses.

Admission requirements for the social work major are as follows:
1. A student must have completed a minimum of one semester as a pre-social work major;
2. A student must have completed required pre-core courses (see listing);
3. A student must complete an application for admission and file it with the Department of Social Work at the beginning of the semester in which admission is sought;
4. A student may be asked to complete an admission interview with a favorable action from the Admissions Committee.

Any of the foregoing admission criteria may be waived by the Department where unusual circumstances and compelling merit are clearly demonstrated.

A student must achieve a GPA of 2.75 in Social Work courses to enroll in field placement and subsequently graduate with the B.S.W. degree.

Pre-Core Courses
1. A student must complete one course in each of the following cognate areas.
   Biology:
   Environment
   Food and Drugs
   Sex, Reproduction and Population
   Fundamentals of Biology
   Political Science:
   American National Government
   State and Local Government
   Florida Politics and Government
   Psychology:
   Introduction to Contemporary Psychology
   Contemporary Problems in Psychology
   General Psychology
   Sociology:
   Introduction to Sociology
   Contemporary Social Problems:
   Social Psychology
   2. A student must complete one of the following cross-cultural courses.
   African and Afro-American Studies:
   Introduction to Afro-American Studies
   Social Institutions and the Ghetto
   Black Americans in the American Economic Process
   Blacks in American Political Process
   Anthropology:
   Introduction to Anthropology
   Anthropological Perspective
   Cultural Anthropology
Sociology:
- Racial and Ethnic Relations
Women's Studies:
- Introduction to Women's Studies
- Contemporary Women in the United States
- Psychology of Women
- Women in Cross-Cultural Perspective
3. A student must complete one of the following behavior courses.
   - Human Services: The Life Cycle
   - Psychology: Developmental Psychology
4. A student must complete SOW 3302, Introduction to Social Work, with a minimum grade of "B" and SOW 3203, The American Social Welfare System, with a minimum grade of "C."

Requirements for the B.S.W. Degree (Core Courses)

1. Human Behavior and Social Environment Courses
   - SOW 3101 (3)
   - SOW 3102 (3)
2. Social Welfare Policy & Service Course
   - SOW 4233 (4)
3. Social Research Course
   - SOW 3403 (4)
4. Social Work Practice Courses
   - SOW 4341 (5)
   - SOW 4343 (5)
5. Directed Field Experience
   - SOW 4510 (10)
6. Additional Requirements
   - SOW 4361 (3)

Summary:
- Core Courses: 27 hours
- Field Experience: 10 hours
- Field Experience: 37 hours

SOCIOLOGY (SOC)
The primary purpose of the major in Sociology is to contribute directly to the student's capacity for critical analysis and understanding of social phenomena and the dynamics of social structure and process. At the same time, it will prepare students for a wide range of careers such as teaching, law enforcement, personnel work, sales, research, urban planning, etc. It also provides training for advanced graduate work in sociology and social psychology and other applied areas such as gerontology, criminal justice, social work, etc.

Requirements for the Major (B.A. Degree)
The major consists of a minimum of 30 credit hours. The following courses may not be counted in the 30 hour minimum for the major but may be elected as additional courses: SYG 1010, SYG 2412, SYA 3504. No more than 3 credit hours of Individual Research (SYA 4910) may be counted as major elective credit. A model program of recommended sequences may be obtained from the Department of Sociology.

Transfer students should be aware that by University regulations, the equivalent of one academic year must be taken in "on-campus" courses. In Sociology, we require that of the 30 credits needed to make up the major, no more than 9 credits earned elsewhere, including exchange program credits, can count towards the major. The purpose of this rule is to ensure that our certification that an individual who has majored in sociology genuinely reflects our understanding of sociology as a major and that there is no fundamental difference between the transfer student and those whose work was entirely or mostly completed at the University of South Florida.

STA 3122 (3) SYG 2000 (3)
SYA 3010 (3) SYP 3000 (3)
SYA 3300 (3)
and either SYO 3530 (3) or SYO 3500 (3)

For students electing a major after having successfully taken 12 upper level credits without having had a formal Introductory course, SYO 3500, Social Organization, may be substituted for SYG 2000 as a requirement. Students making this choice must take SYO 3530 to meet the additional requirement stated above.

Requirements for a Minor:
A minor consists of a total of 15 credits; SYG 2000, Introduction to Sociology (or equivalent) plus 12 semester hour credits at the 3000 level or higher. Though we do not require an adviser, feeling students to be capable of making reasonable choices, we recommend the use of an adviser to find the best set of courses fitting one's personal interests.
COURSE DESCRIPTIONS

Courses offered for credit by the University of South Florida are listed on the following pages in alphabetical order by college and subject area.

The first line of each description includes the State Common Course prefix and number (see below), title of the course, and number of credits.

Credits separated by a colon indicate concurrent lecture and laboratory courses taught as a unit:

PHY 3040, 3040L GENERAL PHYSICS AND LABORATORY

Credits separated by commas indicate unified courses offered in different semesters:

AMH 2010, 2020 AMERICAN HISTORY I, II

Credits separated by a hyphen indicate variable credit:

HUM 4905 DIRECTED RESEARCH

The abbreviation "var." also indicates variable credit:

MAT 7912 DIRECTED RESEARCH

The following abbreviations are utilized in various course descriptions:

PR  Prerequisite
CI  With the consent of the instructor
CC  With the consent of the chairperson of the department or program
CR  Corequisite
Lec. Lecture
Lab. Laboratory
Dem. Demonstration
Pro. Problem
Dis. Discussion
6A  Courses to satisfy Rule 6A-10.30

The University reserves the right to substitute, not offer, or add courses that are listed in this catalog.

Alphabetical Listing of Departments and Programs

Course descriptions are listed by college under the following department and program headings:

Department/Program College
Accounting Business Administration
Administration/Supervision Education
Adult Education Education
African and Afro-American Studies Social and Behavioral Sciences
Air Force ROTC University-wide Courses
American Studies Arts and Letters
Ancient Studies (Religious Studies) Arts and Letters
Anthropology Social and Behavioral Sciences
Arabic (Language) Arts and Letters
Art Fine Arts
Art Education Education
Astronomy Natural Sciences
Basic and Interdisciplinary Engineering Engineering
Biography Natural Sciences
Botany (Biology) Natural Sciences
Business and Office Education
Chemistry Education
Chemical and Mechanical Engineering Natural Sciences
Civil Engineering and Engineering
| Mathematics | Natural Sciences Education |
| Mathematics Education | Education |
| Measurement and Research | Medicine |
| Medical Sciences | Natural Sciences |
| Medical Technology | Medicine |
| Medicine | Natural Sciences |
| Microbiology (Biology) | University-wide Courses |
| Military Science | Fine Arts |
| Music | Education, Fine Arts |
| Music Education | Nursing |
| Nursing | Social & Behavioral Sciences |
| Off-Campus Term | Arts and Letters |
| Philosophy | Education |
| Physical Education Elective | Social and Behavioral Sciences |
| Physical Education for Teachers | Arts and Letters |
| Theatre | Education |
| Physical | Natural Sciences |
| Sciences, Teachers | Social and Behavioral Sciences |
| Social Sciences, Teachers | Arts and Letters |
| Social Work | Social and Behavioral Sciences |
| Sociology | Social and Behavioral Sciences |
| Spanish (Language) | Social and Behavioral Sciences |
| Special Education | Arts and Letters |
| Speech Communication | Education |
| English Education | Fine Arts |
| Theatre | Social and Behavioral Sciences |
| Women's Studies | Natural Sciences |
| Zoology (Biology) | **Cross-Listing of Departments and Programs Alphabetically by College, Department/Program**

**University-wide Courses**

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**College of Arts and Letters**

| American Studies | AMS |
| Classics | CLT |
| Greek | GRE, GRK, GRW |
| Latin | LAT, LNW |
| Communication | COM, LIN, ORI, SED, SPC, AML, CRW, ENC, ENG, ENL, LAE, LIN, LIT, REA |
| English | HUM |
| Humanities | Language |
| General Foreign Languages | FOL |
| Arabic | ARA |
| French | FLE, FRE, FRW |
| German | GER, GEW |
| Hebrew | HBR |
| Italian | ITA, ITW |
| Portuguese | POR, POW |
| Romance | POW |

**College of Business Administration**

| Accounting | RUS, RUT, RUW |
| Common Body of Knowledge (Graduate) | SPN, SPW |
| Economics | IDS |
| Finance | ESL, LIN, PHI, TSL |
| General Business Administration | ADV, FIL, JOU, MMC, PGY, PUR, RTV, VIC |
| Information Systems and Decision Sciences | PHH, PHI, PHP, CLA, HEB |

**College of Education**

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<td>Speech Communication-English Education</td>
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**College of Natural Sciences**

<p>| Natural Sciences | | |
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| Medicine | | |
| Public Health | | |
| Rehabilitation Counseling | | |
| Religious Studies | | |
| Romance (Language) | | |
| Russian (Language) | | |
| Social Science Education | | |
| Social Sciences, Interdisciplinary | | |
| Social Work | | |
| Sociology | | |
| Spanish (Language) | | |
| Special Education | | |
| Speech Communication | | |
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| Zoology (Biology) | | |
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| <strong>College of Arts and Letters</strong> | | |
| American Studies | | |
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| Greek | | |
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| Language | | |
| General Foreign Languages | | |
| Arabic | | |
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| Portuguese | | |
| Romance | | |
| <strong>College of Business Administration</strong> | | |
| Accounting | | |
| Common Body of Knowledge (Graduate) | | |
| Economics | | |
| Finance | | |
| General Business Administration | | |
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| <strong>College of Education</strong> | | |
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<td>Computer Science and Engineering</td>
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<tr>
<td>CJI</td>
<td>Criminal Justice</td>
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<tr>
<td>CLA</td>
<td>Ancient Studies (Religious Studies), Classics</td>
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<td>CLP</td>
<td>Psychology</td>
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<td>COC</td>
<td>Computer Service Courses, Computer Science and Engineering, General Business Administration, Information, Information Systems and Decision Sciences</td>
</tr>
<tr>
<td>COE</td>
<td>Cooperative Education</td>
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<tr>
<td>COM</td>
<td>Communication</td>
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<tr>
<td>COP</td>
<td>Computer Service Courses, Computer Science and Engineering, Library, Media and Information Studies, Mathematics</td>
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<td>CRW</td>
<td>English</td>
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<td>DAA</td>
<td>Dance, Physical Education Elective</td>
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<td>DAN</td>
<td>Dance</td>
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<tr>
<td>DEC</td>
<td>Distributive and Marketing Education</td>
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<tr>
<td><strong>College of Fine Arts</strong></td>
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<td><strong>College of Medicine</strong></td>
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<td><strong>College of Natural Sciences</strong></td>
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<td><strong>College of Nursing</strong></td>
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<td><strong>College of Public Health</strong></td>
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<tr>
<td><strong>College of Social and Behavioral Sciences</strong></td>
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COURSE DESCRIPTIONS

DEP  Psychology
EAS  Civil Engineering and Mechanics
ECH  Chemical and Mechanical Engineering
ECI  Civil Engineering and Mechanics
ECO  Economics
ECP  African and Afro-American Studies, Economics
Public Health
ECS  Economics
EDA  Administration/Supervision
EDE  Curriculum, Elementary Education
EDF  Foundations, Measurement-Research Computers in Education
EDG  Art Education, Curriculum, Communication-Speech
Communication, Elementary Education, Special Education
EDH  Higher Education
EDM  Curriculum
EDS  Elementary Education, Administration/Supervision
ECC  Elementary Education
EDD  Special Education
EEL  Computer Science and Engineering, Electrical Engineering
EES  Civil Engineering and Mechanics
EEX  Special Education
EGC  Counselor Education, Rehabilitation Counseling
EGI  Special Education
EGM  Civil Engineering and Mechanics
EGN  Basic and Interdisciplinary Engineering
EIA  Industrial and Technical Education
EIN  Industrial and Management Systems Engineering
ETV  Industrial and Technical Education
ELD  Special Education
ELR  Electrical Engineering
EMA  Civil Engineering and Mechanics
EMC  Chemical and Mechanical Engineering
EML  Chemical and Mechanical Engineering
EMR  Special Education
ENC  English
ENE  Computers in Education, Content Specializations
ENG  English
ENL  English
ENU  Chemical and Mechanical Engineering
ENV  Civil Engineering and Mechanics
ENY  Zoology (Biology)
EPH  Special Education
ESE  Curriculum
ESI  Industrial and Management Systems Engineering
Computer and Engineering
ESL  Linguistics
ETE  Engineering Technology
ETG  Engineering Technology
ETI  Engineering Technology
EUH  History
EUS  International Studies Program
EVI  Special Education
EVT  Industrial/Technical Education
EXP  Psychology
FIL  Mass Communications
FIN  Finance
FLE  Content Specializations Foreign Language Education,
French (Language)
FOL  General Foreign Languages
FOW  Romance (Language)
FRE  French (Language)
FRW  French (Language)
GEA  Geography
GEB  Common Body of Knowledge, Economics, General
Business Administration, Information Systems and Decision Sciences
GEO  Geography
GER  German (Language)
GEW  German (Language)
GEY  Gerontology
GLY  Geology
GMS  Medical Sciences, Medicine
GRE  Greek (Classics), Religious Studies
GRK  Greek (Classics)
GRW  Greek (Classics)
HBB  Hebrew (Language)
HEB  Ancient Studies (Religious Studies)
HES  Content Specialization, Physical Education for Teachers, Public Health
HIS  History
HLP  Elementary Education
HSA  Public Health
HSC  Medicine, Public Health
HUM  African and Afro-American Studies, Humanities, Humanities Education
HUN  Nursing
HUS  Human Services
IDH  Honors Program
IDS  Honors Program, Liberal Studies, Off-Campus Term
INP  Psychology
INR  African and Afro-American Studies, International Studies Program, Political Science
ISM  Information Systems and Decision Sciences
ITA  Italian (Language)
ITW  Italian (Language)
JOU  Mass Communications
LAE  Curriculum, Elementary Education, English, English Education
LAL  History
LAS  International Studies Program
LAT  Latin (Language)
LEI  Physical Education for Teachers, Sociology
LIN  Communication, English, Linguistics
LIS  Library, Media and Information Studies
LIT  English, Women's Studies
LNW  Latin (Classics)
MAA  Mathematics
MAC  Mathematics
MAD  Mathematics
MAE  Content Specializations, Elementary Education, Mathematics, Mathematics Education
MAN  Foundation Courses in Business (Graduate), General Business Administration, Management
MAP  Mathematics
MAR  Marketing
MAS  Mathematics
MAT  Mathematics
MCB  Microbiology (Biology)
MEL  Medicine
MET  Geography
MGF  Mathematics
MHF  Mathematics
MIS  Military Science
MLS  Medical Technology
MMC  Mass Communications
MTG  Mathematics
MUC  Music
MUE  Elementary Education, Music Education
MUG  Music
MUH  Anthropology, Music
MUL  Music
MUN  Music
MUO  Music
MUS  Music
MUT  Music
MVB  Music
MVK  Music
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MVS  Music
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<td>African and Afro-American Studies, Political Science</td>
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<td>Civil Engineering and Mechanics</td>
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<tr>
<td>ZOÓ</td>
<td>Biology, Marine Science, Zoology (Biology)</td>
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**COURSE LEVEL DEFINITION**

- **Lower Level**
  - 0000-1999 Freshman Level
- **Upper Level**
  - 3000-3999 Junior Level
  - 4000-4999 Senior Level
- **Graduate Level**
  - 5000-5999 Senior/Graduate Level
  - 6000-Up Graduate Level
WELCOME TO THE UNIVERSITY OF SOUTH FLORIDA
UNIVERSITY-WIDE COURSES

COORDINATING DEPARTMENT

AEROSPACE STUDIES

Coordinator: L. J. Berman, Acting Associate Director: Don Burrowbridge

AEROSPACE STUDIES


AFR 1101 THE AIR FORCE TODAY - ORGANIZATION AND DOCTRINE (1)
Introduction to the Air Force in the contemporary world through a study of its total force structure and mission.

AFR 1120 THE AIR FORCE TODAY - STRUCTURE AND ROLES (1)
A study of the strategic offensive and defensive forces, general purpose forces, and aerospace support forces that make up the Air Force of today.

AFR 2130 U.S. AIR POWER: ASCENSION TO PROMINENCE (1)
A study of air power from balloons and dirigibles through the jet age. Emphasis is on the employment of air power in WWI and WWII and how it affected the evolution of air power concepts and doctrine.

AFR 2140 U.S. AIR POWER: KEY TO DETERRENCE (1)
A historical review of air power employment in military and non-military operations in support of national objectives. Emphasis is on the period from post WWII to present.

AFR 2150 FIELD TRAINING (0)
Field Training is offered during the summer months at selected Air Force bases throughout the United States. Students in the four-year program participate in four weeks of Field Training, usually between their sophomore and junior years. Students applying for entry into the two-year program must successfully complete six weeks of Field Training prior to enrollment in the Professional Officer Course. The major areas of study in the Field Training program include junior officer training, aircraft and aircrew orientation, career orientation, survival training, base functions and Air Force environment, and physical training.

AFR 3220 AIR FORCE MANAGEMENT AND LEADERSHIP-I (3)
An integrated management course emphasizing the individual as a manager in an Air Force milieu. The individual motivational and behavioral processes, leadership, communication, and group dynamics are covered to provide a foundation for the development of the junior officer's professional skills as an Air Force officer (officership). The basic managerial processes involving decision-making, utilization of analytic aids in planning, organizing, and controlling in a changing environment are emphasized as necessary professional concepts.

AFR 3231 AIR FORCE MANAGEMENT AND LEADERSHIP-II (3)
A continuation of the study of Air Force advancement and leadership. Concentration is on organizational and personal values, management of forces in change, organizational power, politics, and managerial strategy and tactics are discussed within the context of the military organization. Actual Air Force cases are used to enhance the learning and communication processes.

AFR 4201 NATIONAL SECURITY FORCES IN CONTEMPORARY AMERICAN SOCIETY I (3)
A study of the Armed Forces as an integral element of society, with an emphasis on American civil-military relations and context in which U.S. defense policy is formulated and implemented. Special themes include: societal attitudes toward the military and the role of the professional military leader-manager in a democratic society. Students will be expected to prepare individual and group presentations for the class, write reports and otherwise participate in group discussions, seminars, and conferences.

AFR 4211 NATIONAL SECURITY FORCES IN CONTEMPORARY AMERICAN SOCIETY II (3)
A continuation of the study of the Armed Forces in contemporary American society. Concentration is on the requisites for maintaining adequate national security forces; political, economic, and social constraints on the national defense structure; the impact of technological and international developments on strategic preparedness; the variables involved in the formulation and implementation of national security policy; and military justice and its relationship to civilian law. Students will be expected to prepare individual and group presentations for the class, write reports and otherwise participate in group discussions, seminars, and conferences.

AFR 1101L/1120L/2130L/2140L/3220L/3230L/3231L/4201L/4211L LEADERSHIP LABORATORY (0)
Leadership Laboratory is required for each of the Aerospace Studies courses. It meets one hour per week. Instruction is conducted within the framework of an organized cadet corps with a progression of experiences designed to develop each student's leadership potential. Leadership Laboratory involves a study of Air Force customs and courtesies; drill and ceremonies; career opportunities in the Air Force; and the life and work of an Air Force junior officer. Students develop their leadership potential in a practical laboratory, which typically includes field trips to Air Force installations throughout the U.S.
HONORS PROGRAM

Director: David P. Schenck

(There is no permanent University Honors faculty. Instructors for the following courses are recruited from among the University's most outstanding teacher-scholars). University Honors students must take all of the courses including 2 semesters of either Thesis or Project (but not both).

IDH 2010 ACQUISITION OF KNOWLEDGE
PR: Admission into the Honors Program. An appreciation of the problems of how human understanding proceeds through operations such as perception, classification, and inference, among others, as well as the open philosophic questions behind these operations.

IDH 3100 ARTS/HUMANITIES HONORS
PR: IDH 2010. An introduction to western arts and letters from the perspectives of three specific periods; classicism, romanticism, and modernism, the relationship of ideas to art, the similarities among the arts of a given period, and important differences between periods.

IDH 3200 BIO-SCIENCES HONORS
PR: IDH 2010. An exploration of current knowledge concerning fundamental principles in the Bio-Sciences, their potential for application, and attendant ethical and philosophical questions.

IDH 3300 PHYSICAL SCIENCES HONORS
PR: IDH 2010. An exploration of physical entities at the macro, atomic, and subatomic levels. Designed to explore the ways scientists work through an examination of a range of topics.

IDH 3400 SOCIAL AND BEHAVIORAL SCIENCES HONORS

IDH 4000 JUNIOR HONORS SEMINAR
PR: IDH 2010, IDH 3100, IDH 3200, IDH 3300, IDH 3400. A course in problem-solving skills designed to prepare students for independent research. The class will be responsible for determining course content and requirements in close consultation with a faculty mentor.

IDH 4950 HONORS PROJECT
PR: Senior Honors Standing. The development of and public presentation of a special project such as an original musical composition, dramatic piece, etc. under the direction of a mentor.

IDH 4970 HONORS THESIS
PR: Senior Honors Standing. The research for and writing of a senior thesis under the direction of a mentor.

MILITARY SCIENCE

Professor: LTC John LaRoche; Associate Professors: MAJ Kevin Keating, MAJ Frank Cook, MAJ Thomas Mikalauskas; Assistant Professors: CPT John Barker, CPT Phillip Barnette, CPT Crumpton, CPT Patrick Simon.

MIS 1000 INTRODUCTION TO THE ARMY
INTRODUCTION TO THE ARMY
PR: Senior Honors Standing. The development of and public presentation of a special project such as an original musical composition, dramatic piece, etc. under the direction of a mentor.

MIS 1020 ORGANIZATION OF THE ARMY AND ROTC
PR: Admission into the Honors Program. An appreciation of the problems of how human understanding proceeds through operations such as perception, classification, and inference, among others, as well as the open philosophic questions behind these operations.

MIS 1654 INTENSIFIED COURSE - BASIC SKILLS, TACTICS AND FIELD TRAINING ON CAMPUS
PR: MIS 1020 or equivalent; available to non-majors. Study and application of the principles of map reading, military and topographic symbols, terrain appreciation and evaluation, map orientation, intersection and resection, use of the lensatic compass, and an introduction to land navigation.

MIS 2610 MILITARY TRAINING MANAGEMENT AND INSTRUCTION
PR: MIS 2601 or equivalent; available to non-majors. Develops an understanding of the fundamental concepts involved with instruction, training management, and curriculum development in the military. Actual student preparation and presentation will be an integral part of the course.

MIS 2940 BASIC FIELD INTERNSHIP (Fr. Knox)
PR: Basic Field Internship. A summer program conducted at Ft. Knox, KY designed to meet the prerequisites for the Advanced Program under the two year course of study (S/U only).

MIS 3300 SMALL UNIT OPERATIONS
PR: MIS 2610, 2940, 1654 or equivalent. Open to ROTC Contract Cadets only. Provides training required by junior officer to direct and coordinate individuals and small units in the execution of offensive and defensive tactical missions. Provides exposure to military weapons and communications systems.

MIS 3404 LEADERSHIP FUNDAMENTALS - TACTICS AND CAMP PREPARATION
PR: MIS 3300 or equivalent. Open to ROTC Contract Cadets only. Improves cadet proficiency in those military subjects necessary to meet minimum standards of technical competence and self-confidence required of a junior officer in the U.S. Army. Prepares cadets for participation at Advanced Camp.

MIS 4002 ARMY AS A PROFESSION
PR: Cl. Provides a basic understanding of the professional soldier's responsibilities to the Army and the nation. Included are seminars to acquaint the new lieutenant with his/her relationship to NCO's, company grade officers, senior officers.

MIS 4421C SEMINAR IN LEADERSHIP AND MANAGEMENT
PR: MIS 3404, Cl. Obligations and responsibilities of a commissioned officer with emphasis on application of sound leadership to all situations. Uniform Code of Military Justice and its relation to Civilian law; Fundamentals of both offensive and defensive tactics and role of various branches of the Army in tactical operations. Role of the U.S. in world affairs in the 1980's.
AMERICAN STUDIES

Chairperson: J. B. Moore; Distinguished Professor; R. B. Nye; Professors: D. R. Harkness, J. B. Moore, H. M. Robertson; Associate Professors: R. A. Banes, R. E. Snyder; Other Faculty: R. C. O'Hara, J. A. Parish, S. A. Zylstra.

AMS 2363 ISSUES IN AMERICAN CIVILIZATION (2)
Through lecture and demonstration an examination of such topics as natural environment and the quality of life, sports and American society, leisure and technology, vigilant tradition, jazz music, role of the family, American success myth, youth in America. Repeatable up to 6 credit hours.

AMS 3001 AMERICA AT THE TURN OF THE CENTURY - 6A (4)
Integration of major aspects of American life between 1898 and 1914. Should be taken the first term a student becomes an American Studies major. Elective for non-majors.

AMS 3201 THE COLONIAL PERIOD (4)
The pattern of American culture as revealed through an examination of selected writings and pertinent slides and recordings dealing with the art, architecture and music of the colonial period. Elective for non-majors.

AMS 3210 REGIONS OF AMERICA (4)
The pattern of American culture as revealed through an examination of selected writings and other pertinent materials dealing with selected American regions. Elective for non-majors. Repeatable up to eight credit hours.

AMS 3230 AMERICA DURING THE TWENTIES AND THIRTIES (4)
Selected interdisciplinary materials are used to examine the relationships among regionalism, nationalism and internationalism during the twenties and thirties. Emphasis is placed on the measure of cultural nationalism attained by the United States during this period. Elective for non-majors.

AMS 3302 ARCHITECTURE AND THE AMERICAN ENVIRONMENT (3)
By means of slides, lectures and discussion the course examines 350 years of American architectural history. Architectural styles, aesthetics and the relation between a building and its social environment are stressed.

AMS 3303 THE AMERICANIZATION OF ENGLISH (3)
An overview of American attitudes toward the English language from colonization to the present. Among the topics discussed are: the American mania for correctness, the influence of the school, family, and popular names and language prudery.

AMS 3370 SOUTHERN WOMEN: MYTH AND REALITY - 6A (3)
An analysis of the myths surrounding Southern Women, this course will identify these myths, discern their sources and purposes, and contrast them with history. (Also offered under Women's Studies.)

AMS 3930 SELECTED TOPICS IN AMERICAN STUDIES (1-4)
Offerings include The American Success Myth, Cultural Darwinism in America, America Through Foreign Eyes, Contemporary Topics in American Studies and Racism.

AMS 4910 INDEPENDENT RESEARCH (1-4)
The content of the course will be governed by student demand and instructor's interest. Instructor's approval required prior to registration.

AMS 4930 SELECTED TOPICS IN AMERICAN STUDIES (1-4)
Offerings include American Painting: its social implications, Technology in the Twentieth Century America, American Environmental Problems, Popular Culture in America, American Military Experience, and Labor in America.

AMS 4935 SENIOR SEMINAR IN AMERICAN STUDIES (4)
Pr: Senior in American Studies or CL.

AMS 4936 SENIOR SEMINAR IN AMERICAN STUDIES (4)
Pr: AMS 4935 or CL.

ANCIENT STUDIES

See Religious Studies

CLASSICS

Chairperson: A. L. Motto; Professor: A. L. Motto; Associate Professor: J. D. Noonan; Assistant Professor: S. R. Mandell; Courtesy Professor: A. Starr; Other Faculty: J. R. Clark, W. M. Murray, J. F. Strange, G. K. Tipps.

CLA 4100 GREEK CIVILIZATION - 6A (4)
Study of the Greek Civilization from its beginning to the Roman period, with emphasis on social customs, political institutions, and daily life.

CLA 4120 ROMAN CIVILIZATION - 6A (4)
Study of the Ancient Roman Civilization with emphasis on social customs, political institutions, and daily life.

CLA 4935 SENIOR SEMINAR (3)
Pr: Senior in the Interdisciplinary Classics and the Ancient World Program. A seminar integrating disciplines involved in the study of the civilizations of the Ancient Near East, Greece and Rome.

Courses in Translation

CLT 3040 CLASSICAL WORD ROOTS IN SCIENCE (3)
A course in the Greek and Latin word elements used in science and technology.

CLT 3101 GREEK LITERATURE IN TRANSLATION - 6A (4)
Reading and discussion of major works in Greek literature. Special emphasis is placed on the Iliad, the dramatists Aeschylus, Sophocles, Euripides and Aristophanes. Some attention is given to the social and political background of the works. All readings are in English.

CLT 3102 ROMAN LITERATURE IN TRANSLATION - 6A (4)
Reading and discussion of major works in Roman literature. Special emphasis is placed on the Aeneid. comedy and satire. Some attention is given to the political background of the works. All readings are in English.

CLT 3370 CLASSICAL MYTHOLOGY - 6A (4)
Study of Greek and Roman myths embodied in classical literature and of their impact on Western civilization. All readings are in English. See Interdisciplinary Classics.

Greek

GRE 1100 BEGINNING CLASSICAL GREEK I (4)
An introductory course in classical Greek grammar with appropriate readings.

GRE 1101 BEGINNING CLASSICAL GREEK II (4)
Pr: GRE 1100 or equivalent. An introductory course in classical Greek grammar with appropriate readings.
LAT 1120 (formerly LAT 1100)  
BEGINNING LATIN I  
(4)  
An introductory course in Latin grammar with appropriate readings.

LAT 1121 (formerly LAT 1101)  
BEGINNING LATIN II  
(4)  
FR: LAT 1120 or equivalent. An introductory course in Latin grammar with appropriate readings.

LWN 4311 ROMAN COMEDY I: PLAUTUS  
(4)  
FR: Basic knowledge of Latin. Readings of selected plays by Plautus; introduction to comedy - its theory and practice.

LWN 4312 ROMAN COMEDY II: TERENCE  
(4)  
FR: Basic knowledge of Latin. Readings of selected plays by Terence.

LWN 4322 ROMAN ELEGIC POETS II:  
PROPERTIUS AND TIBULLUS  
(4)  
FR: Basic knowledge of Latin. Readings in Propertius and Tibullus; further study of art and tradition in Roman lyric poetry.

LWN 4361 ROMAN SATIRE I  
(4)  
FR: Basic knowledge of Latin. Readings in the Satyricon of Petronius; Introduction to the nature of satire.

LWN 4362 ROMAN SATIRE II  
(4)  
FR: Basic knowledge of Latin. Readings in Seneca's Apocolocyntosis, the satires of Horace, and Juvenal. Introduction to the tradition and art of formal verse satire.

LWN 4381 LIVY  
(4)  
FR: Basic knowledge of Latin. Readings in the ideas and artistry of this Roman historian.

LWN 4500 CICERO AND ROMAN PHILOSOPHY  
(4)  
FR: Basic knowledge of Latin. Readings in the philosophic writings of Cicero, together with a consideration of eclectic thought.

LWN 4501 SENECA AND ROMAN PHILOSOPHY  
(4)  
FR: Basic knowledge of Latin. Readings in the philosophic writings of Lucius Annaeus Seneca, together with an examination of Stoic, Epicurean, and Eclectic thought.

LWN 4634 (formerly LWN 4660)  
ROMAN ELEGiac POETS I: CATULLUS  
(4)  
FR: Basic knowledge of Latin. Readings in Catullus. Study of techniques and tradition in Roman lyric poetry.

LWN 4644 (formerly LWN 4665) CICERO  
(4)  
FR: Basic knowledge of Latin. Readings in the epistles of Cicero.

LWN 4654 (formerly LWN 4675) HORACE  
(4)  
FR: Basic knowledge of Latin. Readings in the Odes and Epodes of Horace; study of the Ode's tradition.

LWN 4900 DIRECTED READING  
(1-4)  
Departmental approval required.

LWN 4930 SELECTED TOPICS  
(4)  
Study of an author, movement, or theme. May be repeated up to twelve credit hours.

LWN 5934 SELECTED TOPICS  
(4)  
Study of an author, movement or theme. May be repeated up to twelve credit hours.

COMMUNICATION  
Chairperson: A. P. Bochner; Professors: A. P. Bochner, P. J. Newcombe, R. J. Schneider; Associate Professors: D. A. Carter, K. N. Cisna, B. F. Downs, C. J. Jablonski, N.C. James, L. S. Petegrew, D. T. Porter; Assistant Professor: M. L. Vanderford; Other Faculty: D. H. Smith.

COM 3003 DIMENSIONS OF COMMUNICATION  
(3)  
PR: SPC 2023. An introductory survey of the various perspectives for the study of human communication. An exploration of the assumptions, constructs, and explanatory paradigms associated with the study of communication in its symbolic, aesthetic, historical, critical, and pragmatic dimensions.

COM 3122 INTERVIEW COMMUNICATION  
(3)  
A study of communication theory relative to interview situations with emphasis on the employment interview, appraisal interview, and persuasive interview.

COM 3131 TECHNICAL COMMUNICATION  
(3)  
Investigation and application of methodology and effective technical communication of effective oral presentation of technical reports.

COM 4110 SPEECH COMMUNICATION FOR BUSINESS AND THE PROFESSIONS  
(3)  
Identification of Speech Communication situations specific to business and the professions. Analysis of variables related to communication objectives and preparation of oral presentations in the form of informational reports, conference management, persuasive communications, interviews, and public hearing.

COM 4120 INTRODUCTION TO COMMUNICATION THEORY IN ORGANIZATIONS  
(3)  
PR: majors, COM 3003 or Cl: non-majors, COM 3122 or COM 4110 or Cl. A survey of communication concepts which impact upon organizational effectiveness.

COM 4942 COMMUNICATION INTERN SEMINAR  
(3)  
PR: Communication major, minimum GPA 3.0, 75 hours completed, 15 hours of core requirements and 9 elective hours completed, and CI. Seminar provides students with an opportunity to put into practice concepts and skills acquired in their study of communication. Weekly seminar sessions augment intern experience. Application for seminar must be submitted one semester prior to seminar offering.

COM 5123 COMMUNICATION ASSESSMENT IN ORGANIZATIONS  
(3)  
PR: for undergraduates, COM 4120 or CI; graduates, CI. A study of the means by which the communication specialist intervenes in organizational behavior. An emphasis is placed on gathering and analyzing organizational communication data.

ORI 3000 FUNDAMENTALS OF ORAL READING  
(3)  
Designed to develop proficiency in the understanding and oral communication of literary and other written materials.

ORI 3950 ORAL INTERPRETATION PERFORMANCE  
(2)  
PR: ORI 3000 or Cl. The study, rehearsal, and performance of literature for Readers Theatre and Chamber Theatre productions. May be repeated (maximum total four hours).

ORI 4120 ORAL INTERPRETATION OF POETRY  
(3)  
PR: ORI 3000 or Cl. Critical appreciation of lyric and narrative poetry and communication of that appreciation to audience. Study of poetic theory and prosodic techniques.

ORI 4140 ORAL INTERPRETATION OF DRAMATIC LITERATURE  
(3)  
PR: ORI 3000 or Cl. Critical appreciation and oral interpretation of special textual materials which are inherently dramatic in nature and poetry, narrative prose, drama, biography, and history.

ORI 4310 GROUP PERFORMANCE OF LITERATURE  
(3)  
PR: ORI 3000 or Cl. Designed to introduce the student to and give him experience in various forms of group approaches to oral interpretation.

ORI 5145 ORAL INTERPRETATION OF DRAMATIC LITERATURE II  
(3)  
PR: ORI 4140. A study of selected pre-modern dramas with special emphasis on problems of interpretation for oral performance.

ORI 5210 ORAL INTERPRETATION OF CHILDREN'S LITERATURE  
(3)  
PR: ORI 3000 or CI. A study of the theories and practice in the oral interpretation of poetry and narrative fiction for children with special emphasis on classical and modern literature.
SPC 2023 FUNDAMENTALS OF SPEECH COMMUNICATION
(3)
The nature and basic principles of speech; emphasis on improving speaking and listening skills common to all forms of oral communication through a variety of experience in public discourse.

SPC 2050 SPEECH IMPROVEMENT AND PHONETICS
(3)
Designed to improve vocal quality and expressiveness, articulation, and pronunciation, and to give instruction and practice in using the International Phonetic Alphabet for speech improvement.

SPC 2052 SPEECH IMPROVEMENT AND PHONETICS II
(3)
PR: SPC 2050 or Cl. A continuation of SPC 2050. Emphasis will be upon applying listening and transcription skills to the improvement of vocal quality and effective expressions.

SPC 3210 COMMUNICATION THEORY
(3)
PR: Junior standing or Cl. The study of source, message, and receiver variables in human communications; communication settings, descriptive and predictive models of communication; speech communication as a process.

SPC 3230 RHETORICAL THEORY
(3)
This course surveys the foundations and historical evolution of major concepts, issues, theorists, and approaches to the study of rhetoric and rhetoric as a process.

SPC 3301 INTERPERSONAL COMMUNICATION
(3)
PR: Junior standing or Cl. A study of interpersonal communication in informally structured settings with emphasis on the understanding, description, and analysis of human communication.

SPC 3410 PARLIAMENTARY PROCEDURES
(2)
Principles of parliamentary procedure and practice in conducting and participating in meetings governed by parliamentary rules.

SPC 3441 GROUP COMMUNICATION
(3)
PR: Junior standing or Cl. A survey of theory and research in group communication. Group discussions and communication exercises to increase awareness of the dynamics of human communication in small group settings.

SPC 3513 ARGUMENTATION AND DEBATE
(3)
PR: Junior standing or Cl. Study of principles of argumentation as applied in oral discourse, analysis of evidence and modes of reasoning. Practice in debate preparation and delivery.

SPC 3594 FORENSICS
(1)
Study, library research, practice in public speaking situations on campus and in intercollegiate forensics competition. May be repeated (maximum of four hours).

SPC 3601 PUBLIC SPEAKING
(3)
PR: SPC 2023 or Cl. Study and application of communication strategies in speaking extemporaneously and from manuscript. The course includes study of selected public addresses as aids to increased speaking skills.

SPC 3633 RHETORIC OF CONFRONTATION
(3)
PR: Junior standing or Cl. The study of rhetorical strategies and tactics of agitation and control in confrontation situations.

SPC 3641 PROPAGANDA
(3)
Study of persuasive campaigns and movements.

SPC 3651 CURRENT ISSUES AND RHETORIC
(2)
Analysis of significant current speakers and issues. May be repeated.

SPC 3653 POPULAR FORMS OF PUBLIC COMMUNICATION
(3)
PR: Junior standing or Cl. Analysis of public communication with emphasis on various presessional forms.

SPC 3900 DIRECTED READINGS
(1-3)
PR: Junior standing, minimum GPA 2.5, 15 hours of core requirements, and Cl. Maximum 6 hours.

SPC 3905 UNDERGRADUATE RESEARCH
(1-3)
PR: Junior standing, minimum GPA 2.5, 15 hours of core requirements and Cl. Individual investigations with faculty supervision. Maximum: 6 hours.

SPC 3930 SELECTED TOPICS
(1-3)
PR: Junior standing, minimum GPA 2.5, 15 hours of core requirements and Cl. May be repeated.

SPC 4640 THE RHETORIC OF AMERICAN DEMOCRACY
(3)
An analysis of the communication of such 20th Century American political leaders as: Billbo, Agnew, McCarthy, Wallace, Nixon, and Malcolm X.

SPC 4680 HISTORY AND CRITICISM OF PUBLIC ADDRESS
(3)
PR: SPC 3601 or Cl. The principles of rhetorical criticism applied to selected great speeches of Western Civilization.

SPC 4900 DIRECTED READINGS
(1-3)
PR: Senior standing, minimum GPA 2.5, 15 hours of core requirements and 9 elective hours completed, and Cl. Maximum 6 hours.

SPC 4905 UNDERGRADUATE RESEARCH
(1-3)
PR: Senior standing, minimum GPA 2.5, 15 hours of core requirements and 9 elective hours completed, and Cl. Maximum 6 hours. Individual investigations with faculty supervision.

SPC 4906 INDEPENDENT STUDY
(1-3)
PR: Senior standing, minimum GPA 2.5, 15 hours of core requirements and 9 elective hours completed, and Cl. Maximum 6 hours. (S/U only)

SPC 4930 SELECTED TOPICS
(1-3)
PR: Senior standing, minimum GPA 2.5, 15 hours of core requirements and 9 elective hours completed, and Cl. May be repeated.

SPC 4932 SENIOR SEMINAR IN COMMUNICATION
(3)
PR: Senior standing, minimum GPA 3.0, 15 hours of core requirements and 9 elective hours completed, and Cl. Communication major. Exploration of selected topics of current significance to the several areas of communication through group discussion and research.

SPC 5335 NONVERBAL COMMUNICATION
(3)
PR: Senior standing and Cl. A survey of scientific and pragmatic research in nonverbal behavior relating to communication.

SPC 5903 DIRECTED READINGS
(1-4)
PR: Senior or graduate standing and Cl.

SPC 5912 RESEARCH
(1-4)
PR: Senior or graduate standing and Cl.

SPC 5933 SELECTED TOPICS
(1-4)
PR: Senior or graduate standing. Undergraduates must have minimum GPA 3.0, 15 hours of core requirements and 9 elective hours completed, and Cl.

ENGLISH


AML 3031 AMERICAN LITERATURE FROM THE BEGINNINGS TO 1860
(3)
A study of representative works from the period of early settlement through American Romanticism, with emphasis on such writers as Cooper, Irving, Bryant, Hawthorne, Emerson, Melville, Thoreau, Poe, and Whitman.

AML 3033 AMERICAN LITERATURE FROM 1860 TO 1945
(3)
A study of selected American realists, naturalists, and modernists (between WWI and WWII), among them Whitman, Dickinson, Twain, James, Crane, Dreiser, Faulkner, Williams, Wright, Steinbeck, Stevens, Robinson, and Frost.

AML 3271 BLACK LITERATURE
(3)
A study of Black American literature from the nineteenth century to the present, including the works of such writers as W.E.B. DuBois, Jean Toomer, Langston Hughes, Richard Wright, Ralph Ellison, LeRoi Jones, and Nikki Giovanni.
A survey of native American Literature from pre-Columbian religious and folk literature to the current voices in the pan-Indian movement.

A study of the American novel from its beginnings through 1900, including such novelists as Cooper, Hawthorne, Melville, James, Twain, Crane, and Dreiser, among others.

A study of major trends and influences in American prose fiction from 1900 to the present. Includes works by such writers as Hemingway, London, Fitzgerald, Faulkner, West, Mailer, Bellow, Ellison, Dos Passos, Updike, and more.

A study of the major writers of the "Southern Renaissance" including writers such as Faulkner, Wolfe, Caldwell, Hellman, McCullers, O'Connor, Warren, Styron, Allen Tate, and Donald Davidson.

The study of two or three related major authors in American literature, focusing on several major figures; the course may include such writers as Melville and Hawthorne, Hemingway and Faulkner, James and Twain, Pound and Eliot, Stevens and Lowell, etc. Specific topics will vary. May be repeated twice for credit with different topics.

A study of narrative and descriptive techniques in prose. By making the student sensitive to language usage, it is designed to bridge the gap between expository writing and imaginative writing.

A study of short narrative forms such as the anecdote, tale, character sketch, incident, monologue, epistolary story, and short story as they have been used in the development of fiction and as they exist today.

An introduction to fiction writing, beginning with a practical study of the various elements of fiction and proceeding through the many processes of revision to arrive at a completed work of art.

A fiction workshop which provides individual and peer guidance and direction for the student's writing and development of critical standards.

Examines the techniques employed in fixed forms from the couplet through the sonnet to such various forms as the Rondel, ballad, vellanelle, sextina, etc. Principles in the narrative, dramatic, and lyric modes are explored.

An introduction to poetry writing utilizing writing exercises employing poetic language and devices; the exercises progress to the writing of both rhymed and unrhymed metrical and non-metrical forms.

A poetry workshop which provides individual and peer guidance and direction for the student's writing and development of critical standards.

An advanced fiction workshop wherein works may be carried over from CRW 3121 or longer forms such as the novel may be begun. May be taken twice for credit.

An advanced poetry workshop wherein students are expected to create work exhibiting a firm knowledge of the principles explored in the preceding courses. May be taken twice for credit.

12 hours of CRW courses or CL. Focus of the course will be governed by student demand and instructor interest. Topics to be covered may include writing the literary essay, writing in mixed genres, and utilizing popular conventions in serious works. May be repeated up to 8 credit hours.

Instruction and practice in the skills of writing and reading. Courses must be taken in numerical sequence.

Effective presentation of technical and semi-technical information.

A course teaching the techniques for writing effective prose, excluding fiction, in which student essays are extensively criticized, edited, and discussed in individual sessions with the instructor.

A course designed to develop writing skills of a high order: technical exposition; technical narration, description, and argumentation; graphics; proposals; progress reports; physical research reports; and feasibility reports.

A study of particular forms and novels that shows us how such popular arts as the detective story, westerns, science fiction, spy stories, and musical comedy have changed; tells us something about why important changes took place; and explores how and why many serious writers and filmmakers today use techniques, ideas and situations drawn from the popular arts.

A study of such modern and contemporary dramatists as Ibsen, Strindberg, Chekhov, Pirandello, Shaw, O'Neill, Pinter, Stopford, Brecht, Beckett, and Ionesco.

A study of the works of major literary critics from Aristotle to the present, with emphasis on their meaning, their implied world view, and their significance for our own time and literature.

Directed study in special projects. Special permission of chairperson required.

Readings in special topics.

A survey of representative prose, poetry, and drama from its beginnings through the Renaissance, including such poems and figures as Chaucer, Malory, More, Hooker, Skelton, Wyatt, Sidney, Spenser, Shakespeare, Donne, and Jonson.

A survey of 17th Century and Neoclassical Literature, including such figures as Donne, Herbert, Crashaw, Vaughan, Marvell, Milton, Pope, Swift, Johnson, Boswell, and Goldsmith.

The poetry and poetry of the Romantic figures, with attention to the continuing importance of romantic thinking in contemporary affairs and letters; a survey of representative figures of the Victorian and Edwardian periods, including poetry, prose, and drama.

Survey of poetry, drama, and fiction of such writers as Eliot, Yeats, Thomas, Conrad, Shaw, Joyce, Lawrence, Huxley, Woolf, Forster, Auden, and others.

A reading of from ten to twelve representative plays with special attention to developing the student's ability to read, visualize, and interpret the text.

An introduction to the art of William Shakespeare through a comparative analysis of four of his most famous dramas and modern film adaptations of them: Hamlet, King Lear, Romeo and Juliet and Henry V.

A study of early and later British novels such as Fielding, Smollett, Sterne, Austen, Scott, Dickens, Eliot, and Hardy, among others.

A critical study of British fiction from 1900 to the present, with emphasis on such writers as Conrad, Lawrence, Joyce, Woolf, Hux-
ley, Orwell, Burgess, Murdoch, Golding, among others.

**ENL 4171 HISTORY OF BRITISH DRAMA TO 1912** (3)
A study of the history of British Drama from its liturgical origins to the beginning of the twentieth century, exclusive of Shakespeare. Included are the mystery and morality plays, and representative works by Marlowe, Jonson, Middleton, Dryden, Congreve, Sheridan, and Wilde, among others.

**ENL 4303 MAJOR AUTHORS** (3)
The study of two or three related major figures in English, American, or World Literature. The course may include such writers as Fielding and Austen, Keats and Yeats, Joyce and Flaubert, etc. Specific topics will vary. May be taken twice for credit with different topics.

**ENL 4311 CHAUCER** (3)
An intensive study of The Canterbury Tales and major critical concerns.

**ENL 4338 SHAKESPEARE II** (3)
PR: ENL 3333 or CI. Intensive study of selected plays of Shakespeare, with special attention to significant critical issues and to the Elizabethan and Jacobean cultural setting.

**ENL 4341 MILTON** (3)
Study of the poetry and major prose of John Milton, with special emphasis on Paradise Lost.

**LIN 4100 HISTORY OF THE ENGLISH LANGUAGE** (3)
The evolution of language from Anglo-Saxon through Middle English to Modern English. Development of the English lexicon; changes in the pronunciation, syntactic, and semantic systems; discussion of the forms which influenced them.

**LIN 4340 TRADITIONAL ENGLISH GRAMMAR** (3)
A course primarily using the sentence diagram to present a detailed analysis of the parts of speech, verb tenses, sentence functions, and other basic grammatical classifications of traditional English grammar.

**LIN 4370 STRUCTURE OF AMERICAN ENGLISH** (3)
An introductory survey of traditional, structural, and generative transformational grammars and their techniques for the analysis and description of linguistic structure in general, and contemporary American English in particular.

**LIN 5107 HISTORY OF THE ENGLISH LANGUAGE** (3)
PR: Senior or Graduate standing. The course will trace the history of the English Language from its beginnings in Continental Europe, through the Anglo-Saxon and Middle English periods, the Renaissance, and the Nineteenth Century, to the present day with emphasis on both the structural development of the language and the political, social, and intellectual forces that determined this development.

**LIT 2000 INTRODUCTION TO LITERATURE -6A** (3)
The nature and significance of literature in its various forms: fiction, drama, poetry; emphasis on the techniques of reading literature for intelligent enjoyment. Will not be counted toward the English major.

**LIT 2021 CURRENT SHORT FICTION** (3)
Traditional and experimental short stories of this generation: such writers as Updike, Malamud, O'Connor, Roth, Barth, Ionesco, and Barthelme. Will not be counted toward the English major.

**LIT 2091 CURRENT NOVELS** (3)
A study of major British and American novels since WW II; attention will be given to the cultural influences and recent literary trends. Will not be counted toward the English major.

**LIT 2092 DRAMA: TEXTS AND FILMS** (3)
A study of the great works of drama, with emphasis on recent forms and themes. Films will demonstrate the possibilities of visualization. Will not be counted toward the English major.

**LIT 3022 MODERN SHORT NOVEL** (3)
A study of the novella from the nineteenth century to the present. Writers include: James, Dostoevsky, Camus, Styron, Nabokov, Gardner, Roth, Vonnegut, among others.

**LIT 3073 CONTEMPORARY LITERATURE** (3)
An introduction to the fiction, poetry, and drama written since 1945 American, British, Continental. Focus may be on one, two, or all three genres or on works from any combination of nationalities.

**LIT 3101 LITERATURE OF THE WESTERN WORLD THROUGH THE RENAISSANCE -6A** (3)
A study in English of the great works of Western Literature from its beginnings through the Renaissance, including the Bible, Homer, Sophocles, Plato, Euripides, Virgil, Cicero, Dante, Petrarch, Machiavelli, and Rabelais, among others.

**LIT 3102 LITERATURE OF THE WESTERN WORLD SINCE THE RENAISSANCE -6A** (3)
A study in English of the great works of Western Literature from the Neoclassic to the Modern Period, including such writers as Moliere, Racine, Voltaire, Dostoevsky, Chekhov, Ibsen, Kafka, Gide, Sartre, and Camus, among others.

**LIT 3144 MODERN EUROPEAN NOVEL** (3)
A study of the Modern European novel in translation as it developed from the nineteenth century to the present, including such writers as Dostoevsky, Flaubert, Kafka, Hesse, Camus, and Solzhenitsyn.

**LIT 3304 TWENTIETH-CENTURY BEST SELLERS** (3)
A study of representative best-selling novels in twentieth-century America; including such popular works as Peyton Place, Lady Chatterly's Lover, Exodus, and Catcher in the Rye, which have sold in excess of 5,000,000 copies and have served to portray our changing society and to reveal our changing literary taste.

**LIT 3310 FANTASY AND SCIENCE FICTION** (3)
A survey of fantasy and science fiction in England and America from Mary Shelley to the present; includes such writers as Poe, Melville, Ray Bradbury, Arthur C. Clarke, among others.

**LIT 3374 THE BIBLE AS LITERATURE** (3)
Major emphasis on literary types, literary personalities of the Old and New Testaments, and Biblical archetypes of British and American literary classics.

**LIT 3383 THE IMAGE OF WOMEN IN LITERATURE** (3)
A survey of feminism, antifeminism, sexual identity, the feminine mystique, stereotyped and liberated female images from Sappho to the present, with special emphasis on women writers and on the emergence of the women's movement. (Also offered under Women's Studies.)

**LIT 3410 RELIGIOUS AND EXISTENTIAL THEMES** (3)
Theological and philosophical ideas, allusions, and symbols in the writings of Dostoevsky, Nietzsche, Mann, Joyce, Eliot, Camus, Sartre, among others.

**LIT 3451 LITERATURE AND THE OCCULT** (3)
An introduction to the occult tradition as a major ingredient in English, Continental, and American literature; analysis of the origins, classifications, and areas of the various magic arts from classical times through the present.

**LIT 3716 SURVEY OF POETRY** (3)
PR: ENC 1102. A chronological sampling of the major poems written in English from the Middle Ages to the present. Recommended as the first course in the poetry option.

**LIT 3931 SELECTED TOPICS IN ENGLISH STUDIES** (1-4)
Varying from semester to semester, the course examines in depth a predominant literary theme or the work of a select group of writers.

**LIT 4011 THEORY OF FICTION** (3)
Intensive study of the genres and varieties of fiction to ascertain the theoretical and technical problems involved in the work of fiction.

**LIT 4930 SELECTED TOPICS IN ENGLISH STUDIES(1-4)** (3)
The content of the course will be governed by student demand and instructor interest. It will examine in depth a recurring literary theme or the work of a small group of writers. Special courses in writing may also be offered under this title. May be repeated with different topics.

**REA 1105 ADVANCED READING** (3)
Designed to help students develop maximum reading efficiency. The course includes extensive instruction and laboratory practice in the improvement of adequate rates of reading, vocabulary, and comprehensive skills. An independent study approach is also available for students who prefer to assume responsibility for their own
REU 2405 SPEED READING DEVELOPMENT (2)
A course designed to develop speed reading techniques on various levels of difficulty. Emphasis is placed on comprehension via numerous practice drills. Will not be counted toward the English major. (S/U only)

REU 3505 VOCABULARY (3)
A practical course in rapid vocabulary improvement for students in all areas. Stress is on words in context. Will not be counted toward the English major.

HUMANITIES

Chairperson: S.L. Gaggi; Professors: S. L. Gaggi, T.B. Hoffman, H. Juergensen, G. S. Kashdin, E.M. MacKay (Emeritus), D. Rutenberg, L.L. Shackson (Emeritus); A. J. Sparks; Associate Professor: C. B. Cooper, J. R. Spillane, S.A. Zilstra; Courtesy Professor: Laslo J. Hetenyi.

HUM 2930 SELECTED TOPICS (1-4)
An introductory course dealing with a recurrent theme in the arts or focusing on a particular artistic center (a nation or city at a particular time). May be repeated for credit with change of content. May be repeated up to 8 credit hours.

HUM 3024 THE ARTS (3)
Analyses of selected works of film, literature, music, and visual arts, including a variety of periods, nationalities and art forms, emphasizing artistic diversity. Especially recommended for students intending to take 4000 and 5000 level Humanities courses at a future date.

HUM 3214 STUDIES IN CULTURE: THE CLASSICAL AND MEDIEVAL PERIODS (3)
Analyses of selected works of classical and medieval architecture, drama, sculpture, intellectual prose, and other art forms. Typical course focus is on architecture, drama, and intellectual prose.

HUM 3236 STUDIES IN CULTURE: THE RENAISSANCE AND THE NINETEENTH CENTURY (3)
Analyses of selected fiction, drama, painting, architecture, music and other art forms. Typical course focus is on painting and music.

HUM 3251 STUDIES IN CULTURE: THE TWENTIETH CENTURY (3)
Analyses of selected works of 20th Century art, primarily emphasizing film, with secondary emphasis on painting and fiction.

HUM 3271, 3273 THE CULTURE OF THE EAST AND WEST (4,4)
Masterpieces of music, visual arts, theatre, literature, and philosophy in varying cultural and historical situations.

HUM 3580 CURRENT SCENE (2)
Live performances in contemporary media will be followed by discussions. The course will emphasize recent events in the arts with some special attention to current innovations. (S/U only)

HUM 4402 HUMANITIES IN THE ORIENT INDIA (4)
PR: Sophomore standing or CL Examples from the arts and letters of India and the relationship of these arts to the Hindu and Buddhist philosophy-religions.

HUM 4404 HUMANITIES IN THE ORIENT CHINA (4)
PR: Sophomore standing or CL Examples from the arts and letters of China; their relationship to Taoism, Confucianism and other Chinese philosophies; Western influences on twentieth century Chinese arts and letters.

HUM 4405 HUMANITIES IN THE ORIENT JAPAN (4)
PR: Sophomore standing or CL Examples from the arts and letters of Japan, their relationship to Zen Buddhism and other Japanese philosophy-religions; Western influences on twentieth century Japanese arts and letters.

HUM 4433 CLASSICAL ARTS AND LETTERS (4)
PR: Sophomore standing or CL Case studies in the arts and letters of the ancient world.

HUM 4434 CLASSICAL ARTS AND LETTERS (4)
PR: Sophomore standing or CL Case studies in the arts and letters of the ancient world.

HUM 4435 MEDIEVAL ARTS AND LETTERS (4)
PR: Sophomore standing or CL Case studies in the arts and letters of the middle ages.

HUM 4436 MEDIEVAL ARTS AND LETTERS (4)
PR: Sophomore standing or CL Case studies in the arts and letters of the middle ages.

HUM 4437 RENAISSANCE ARTS AND LETTERS -6A (4)
PR: Sophomore standing or CL Case studies in the arts and letters of the Renaissance.

HUM 4438 RENAISSANCE ARTS AND LETTERS -6A (4)
PR: Sophomore standing or CL Case studies in the arts and letters of the Renaissance.

HUM 4440 THE ENLIGHTENMENT -6A (4)
PR: Sophomore standing or CL Case studies in the arts and letters of the Enlightenment.

HUM 4442 ARTS AND LETTERS OF THE ROMANTIC PERIOD (4)
PR: Sophomore standing or CL Case studies in the arts and letters of the romantic period.

HUM 4444 NINETEENTH CENTURY ARTS AND LETTERS (4)
PR: Sophomore standing or CL Case studies in the arts and letters of the nineteenth century.

HUM 4452 HUMANITIES IN AMERICA (19th Cent.), I (4)
PR: Sophomore standing or CL Case studies in the arts and letters of the nineteenth century, emphasizing the post-Civil War period, in order to achieve an understanding of the relationship between democratization and the search for indigenous voices in American art.

HUM 4455 HUMANITIES IN AMERICA (20th Cent.), II (4)
PR: Sophomore standing or CL Case studies in the arts and letters of the United States, in order to explore the diversity of American culture in the twentieth century, to examine the historical, social and economic forces that shape the arts and letters, of this period; and to show the strong interplay between fact and imagination that characterizes American Culture in our time.

HUM 4462 LATIN AMERICAN ARTS AND LETTERS, I (4)
PR: Sophomore standing or CL Analysis of selected Latin American works of art in their cultural context, with emphasis on major art forms selected from the Pre-Columbian period.

HUM 4464 LATIN AMERICAN ARTS AND LETTERS II (4)
PR: Sophomore standing or CL Analysis of selected Latin American works of art in their cultural context, with emphasis on major art forms selected from the colonial through contemporary periods.

HUM 4471, 4473 TWENTIETH-CENTURY ARTS AND LETTERS (4,4)
PR: Sophomore standing or CL Case studies in the arts and letters of the twentieth century.

HUM 4905 DIRECTED STUDY (1-4)
Specialized individual study determined by the student’s needs and interests.

HUM 4930 SELECTED TOPICS IN HUMANITIES (1-4)
PR: Sophomore standing or CL This course will deal with a recurrent theme in the arts as, for example, love or death, or will focus on artistic centers such as Renaissance Florence or Paris in the 1920’s. Topics will vary; course may be repeated for credit with change of content.

HUM 4931 SEMINAR IN HUMANITIES (1-4)
PR: Humanities major or CL Senior standing. Discussion of interdisciplinary humanities. Includes essay.

HUM 4941 STUDY ON LOCATION (1-4)
Prerequisites: None. The art of a culture will be examined during travel in groups, led by an instructor, to important cities or sites. Monuments, museums, architecture, plays, and/or concerts will be studied. Reading assignments and lectures.

LANGUAGE

General Foreign Languages

FOL 3100 GENERAL FOREIGN LANGUAGE I (1-4)
A general purpose course that may be used for transfer of credit, credit by examination, and similar matters; may also be used for formal courses in less commonly taught languages or in professional translation.

FOL 4200 GENERAL FOREIGN LANGUAGE II (1-3)
A general purpose course that may be used for transfer of credit, credit by examination, and similar matters; may also be used for formal courses in less commonly taught languages or for workshops in professional interpreting.

FOL 4905 DIRECTED STUDY
Departmental approval required.

FOL 5906 DIRECTED STUDY
PR: FRE 4200 or equivalent.

Arabic

ARA 3120 (formerly ARA 3111) MODERN ARABIC I (4)
An intensive study of basic skills: pronunciation, listening comprehension, speaking, and some composition.

ARA 3121 (formerly ARA 3111) MODERN ARABIC II (4)
PR: ARA 3120 or its equivalent. A continuation of ARA 3110. More sophisticated oral/aural skills are attained. Basic reading skills are acquired.

Chinese

CHI 1120 MODERN CHINESE I (4)
Mandarin. An intensive study of basic skills: pronunciation, listening comprehension, speaking, and some composition.

CHI 1121 MODERN CHINESE II (4)
PR: CHI 1120 or its equivalent. A continuation of CHI 1120. More sophisticated oral/aural skills are attained. Basic reading skills are acquired.

French

FRE 1040 (formerly FRE 1060) FRENCH FOR READING (3)
Designed to provide a reading ability in French that will support research in other disciplines. Primarily for graduate students.

FRE 1101 (formerly FRE 1100) BEGINNING FRENCH I (4)
The first course in the study of elementary French. Emphasis on the development of basic skills in comprehension, speaking and reading.

FRE 1121 (formerly FRE 1101) BEGINNING FRENCH II (4)
PR: FRE 1120 or equivalent. A continuation of FRE 1120.

FRE 2200 INTERMEDIATE FRENCH I (3)
PR: FRE 1121 or equivalent. A review of the basic structure of French. May be taken concurrently with FRE 2201.

FRE 2201 INTERMEDIATE FRENCH II (3)
PR: FRE 1121 or equivalent. Readings in French on the intermediate level. May be taken concurrently with FRE 2200.

FRE 2440 COMMERCIAL FRENCH (3)
PR: FRE 1121 or equivalent. An introduction to the French language as used in undertaking ordinary business transactions.

FRE 3240 CONVERSATION I (4)
PR: FRE 1121. For development of basic conversational skills.

FRE 3420 COMPOSITION I (3)
A fundamental composition course for students who have completed FRE 2200 or FRE 2201.

FRE 3470 OVERSEAS STUDY (1-6)
An intensive study-travel project in France. Prior approval and early registration required. May be repeated up to 12 credit hours.

FRE 3500 FRENCH CIVILIZATION (3)
Readings and discussion on the cultural history of France.

FRE 4241 CONVERSATION II (4)
PR: FRE 3240 or equivalent proficiency. Conversation practice with concentration on current idiomatic usage. May be repeated for a total of 8 hours.

FRE 4421 COMPOSITION II (3)
Continuation of French composition. This course is designed to follow FRE 3420.

FRE 4470 ADVANCED OVERSEAS STUDY (1-6)
PR: FRE 3470 or CI. Intensive language study in France. Departmental approval required.

FRE 4905 DIRECTED STUDY (1-3)
Departmental approval required.

FRE 4930 SELECTED TOPICS (1-3)
Study of an author, movement or theme.

FRE 5425 (formerly FRE 5422) ADVANCED WRITTEN EXPRESSION (3)
PR: FRE 4241, or equivalent. Course is designed to give advanced training in free composition in French.

FRE 5566 (formerly FRE 5564) CONTEMPORARY FRANCE (3)
PR: FRE 3500 or equivalent or graduate standing. An advanced course in French civilization and culture including a study of recent social, artistic and political trends as well as current intellectual movements. Text and discussions in French.

FRW 4100 INTRODUCTION TO FRENCH NOVEL (3)
A study of the history of the novel from its early appearance to present times with emphasis on the 19th and 20th centuries. Authors to be studied include Chretien de Troyes, Rabelais, Balzac, Flaubert, Proust, Camus, Sartre, Robbe-Grillet, and others. Specific content may vary from year to year.

FRW 4101 INTRODUCTION TO FRENCH DRAMA AND POETRY (3)
A study of the history of drama and poetry. Will include medieval drama, Racine, Corneille, Moliere, Anouilh, Sartre, Ionesco and others. May include Villon, Montherland, Racine, Gide, Mauriac, Maupassant, Sartre, Ionesco and others. Will also include Rabelais, Montaigne, and Pleiade poets.

FRW 5226 20TH CENTURY POETRY AND THEATRE (3)

FRW 5286 (formerly FRW 5283) THE 20TH CENTURY NOVEL (3)
PR: FRW 4100. Proust, Gide, Mauriac, Malraux, Camus, Robbe-Grillet.

FRW 5310 CLASSICAL DRAMA (3)
PR: FRW 4101. Corneille, Moliere, and Racine.

FRW 5415 LITERATURE OF THE MIDDLE AGES (3)
PR: FRW 4100 or 4101. Major genres, including epics, Arthurian romances, drama and lyric poetry. Reading in modern French translation.

FRW 5425 (formerly FRW 5420) LITERATURE OF THE RENAISSANCE (3)
PR: FRW 4100 or 4101. A study of Renaissance French humanism including Rabelais, Montaigne, and Pleide poets.

FRW 5445 (formerly FRW 5440) 18TH CENTURY LITERATURE (3)
PR: FRW 4100. The classical tradition and the new currents of thought in the Age of Enlightenment.

FRW 5530 PRE-ROMANTICISM (3)

FRW 5535 ROMANTICISM AND EARLY REALISM (3)
PR: FRW 4101. A study of the romantic and early realistic movements with emphasis on Lamartine, Vigny, Musset, Hugo and Balzac.

FRW 5556 NATURALISM AND REALISM (3)
PR: FRW 4100 or 4101. A detailed study of realism and naturalism with emphasis on Flaubert, Zola, les Goncourt, Maupassant, and
German

GER 1060 GERMAN FOR READING (3)
Designed to provide a reading ability in German that will support research in other disciplines.

GER 1120 (formerly GER 1100) BEGINNING GERMAN I (4)
Development of basic skills in listening and reading comprehension, speaking and writing of German.

GER 1121 (formerly GER 1101) BEGINNING GERMAN II (4)
PR: GER 1120 or equivalent. Continued development of basic skills in listening and reading comprehension, speaking and writing German.

GER 2200 INTERMEDIATE GERMAN I (3)
PR: GER 1121 or equivalent. A review of the basic structure of spoken and written German. May be taken concurrently with GER 2201.

GER 2201 INTERMEDIATE GERMAN II (3)
PR: GER 1121 or equivalent. Readings in German on the intermediate level. May be taken concurrently with GER 2200.

GER 3240 CONVERSATION I (3)
PR: GER 1121. For development of basic conversational skills.

GER 3420 COMPOSITION I (3)
A fundamental course for students who have completed GER 2200 or GER 2201.

GER 3500 GERMAN CIVILIZATION (3)
PR: GER 2200 or GER 2201. Readings in German on the cultural history of Germany.

GER 4410 (formerly GER 4241) CONVERSATION II (3)
Free conversation based on the current German idiom.

GER 4421 COMPOSITION II (3)
Practical training in modern German usage and differences of style.

GER 5845 HISTORY OF THE GERMAN LANGUAGE (3)
A diachronic approach to the study of the German language. The course traces the history and development of the language from Indo-European through Germanic, Old, Middle, and New High German.

GEW 4100 SURVEY OF GERMAN LITERATURE I (4)
Old High German and Middle High German literature in modern German translation; the literature of Humanism and Baroque, the classical period.

GEW 4101 SURVEY OF GERMAN LITERATURE II (4)
The romantic period, 19th and 20th centuries.

GEW 4900 DIRECTED STUDY (1-3)
Departmental approval required.

GEW 4930 SELECTED TOPICS (1-3)
Study of an author, movement or theme.

GEW 5489 20TH CENTURY LITERATURE 1945 TO PRESENT (3)
Study of major trends in German literature since WWII with emphasis on Goethe, Nietzsche, Hofmannsthal, George Rilke, Kafka, Grass, et al.

GEW 5515 THE ENLIGHTENMENT (3)
Selected works of Lessing, Wieland, Kant.

GEW 5545 (formerly GEW 5541) ROMANTICISM (4)
Jenaer circle and Heidelberg circle; the late Romantic period, the writers between Classicism and Romanticism.

GEW 5555 (formerly GEW 5551) REALISM (3)
Selected works by Grillparzer, Grabe, Buchner, Hebbel, Heine, and others.

GEW 5600 GOETHE (3)
Selected novels, poems: Werther, Wahlverwandschaften; Wilhelm Meister, Westöstlicher Divan.

GEW 5603 FAUST (3)
Sources, form, content, and literary significance of Urfaust and Faust.

GEW 5610 SCHILLER (3)
Selected dramas, philosophical and aesthetic writings.

GEW 5934 SELECTED TOPICS (1-3)
PR: Upper-level or graduate standing. Study of an author, movement or theme.

Hebrew

HBR 3120 (formerly HBR 3110) MODERN HEBREW I (4)
An intensive study of basic skills: pronunciation, listening comprehension, speaking, and some composition.

HBR 3121 (formerly HBR 3111) MODERN HEBREW II (4)
PR: HBR 3120 or equivalent. A continuation of HBR 3120. More sophisticated oral/aural skills are attained. Basic reading skills are acquired.

Italian

ITA 1120 (formerly ITA 1100) BEGINNING ITALIAN I (4)
The first course in the study of elementary Italian. Emphasis is on the development of basic skills in comprehension, speaking, and reading.

ITA 1121 (formerly ITA 1101) BEGINNING ITALIAN II (4)
The second course in the study of elementary Italian. Emphasis is on the development of basic skills in comprehension, speaking and reading.

ITA 2200 INTERMEDIATE ITALIAN I (3)
PR: ITA 1120 or equivalent. Readings in Italian on the intermediate level. A review of the basic structure of spoken and written Italian.

ITA 2201 INTERMEDIATE ITALIAN II (3)
PR: ITA 1121 or equivalent. Readings in Italian on the intermediate level. May be taken concurrently with ITA 2200.

ITA 3240 ITALIAN CONVERSATION I (4)
To develop fluency and correctness in spoken Italian. Intensive study for conversational skill based particularly upon the current Italian idiom. Syntax is intensified and the vocabulary and idiomatic expressions expanded.

ITA 3420 COMPOSITION (3)
A fundamental composition course for students who have completed ITA 2200 and ITA 2201.

ITA 3470 OVERSEAS STUDY (1-6)
An intensive study-travel project in Italy. Prior approval and early registration required. May be repeated up to 12 credit hours.

ITA 3500 ITALIAN CIVILIZATION (3)
Readings and discussion on the cultural history of Italy.

ITA 3560 ITALIAN CINEMA AND LITERATURE (3)
A parallel study of fiction and film from post-war Neo-realism to the present time. This course will be conducted in English with film viewing and lectures.

ITA 4241 ITALIAN CONVERSATION II (4)
To assist students who have already made a start in speaking Italian, who have not had the advantages of travel or who have non-Italian speaking parents, to improve their skill in speaking Italian. Current events; literary discussions; free conversation; prepared speeches. Differences of media, syntactical signal.

ITA 4930 SELECTED TOPICS (1-3)
Study of an author, movement or theme.

ITW 4100 SURVEY OF ITALIAN LITERATURE I (4)
A survey of Italian literature from the earliest monuments through the classicism of the 18th century.

ITW 4101 SURVEY OF ITALIAN LITERATURE II (4)
A survey of Italian literature beginning with the Classicism of the 18th century and continuing to present.
Japanese

JPN 1120 MODERN JAPANESE I (4)
An intensive study of basic skills: pronunciation, listening comprehension, speaking, and some composition.

JPN 1121 MODERN JAPANESE II (4)
PR: JPN 1120 or equivalent. A continuation of JPN 1120. More sophisticated oral/aural skills are attained. Basic reading skills are acquired.

Portuguese

POR 1120 BEGINNING PORTUGUESE I (4)
Development of basic skills in listening and reading comprehension, speaking, and writing of Brazilian Portuguese.

POR 1121 BEGINNING PORTUGUESE II (4)
PR: POR 1120 or equivalent. Continued development of basic skills in listening and reading comprehension, speaking, and writing of Brazilian Portuguese.

POR 3130 (formerly POR 3210) INTENSIVE PORTUGUESE (4)
PR: 2 years of another Romance language or Latin, or CI. An accelerated study of the fundamentals of listening, speaking, reading, and writing.

POR 3470 OVERSEAS STUDY (1-6)
PR: POR 3130. An intensive study-travel program in a Portuguese-speaking country. Prior departmental approval and early registration are required.

POR 3500 THE LUSO-BRAZILIAN WORLD (3)
An introduction to the culture and civilization of Portugal and Brazil.

POW 4905 DIRECTED STUDY (1-3)
Departmental approval required. May be repeated.

Russian

RUS 1120 (formerly RUS 1100) BEGINNING RUSSIAN I (4)
The first course in the study of elementary Russian. Emphasis on the development of basic skills in comprehension, speaking, and reading.

RUS 1121 (formerly RUS 1101) BEGINNING RUSSIAN II (4)
PR: RUS 1120 or CI. The second course in the study of elementary Russian. Emphasis on the development of basic skills in comprehension, speaking, and reading.

RUS 3240 (formerly RUS 3400) CONVERSATION AND COMPOSITION I (4)
PR: First year Russian or equivalent. Development of basic skills in conversation, composition, and reading.

RUS 3500 RUSSIAN CIVILIZATION (3)
A survey of the cultural history of Russia.

RUS 4241 (formerly RUS 4401) CONVERSATION AND COMPOSITION II (4)
PR: Previous course in series or equivalent. Continuation of RUS 3240.

RUS 4402 ADVANCED RUSSIAN CONVERSATION & COMPOSITION I (4)
PR: RUS 4241 or CI. Third year Russian.

RUS 4403 ADVANCED RUSSIAN CONVERSATION & COMPOSITION II (4)
PR: RUS 4241 or CI. Third year Russian.

RUS 4900 SELECTED TOPICS (1-3)
Study of an author, movement or theme.

RUS 4905 DIRECTED STUDY (1-3)
Departmental approval required.

RUT 3110 RUSSIAN CLASSICS IN TRANSLATION (3)
Masterpieces of 19th century Russian literature in English. The major works of Pushkin, Lermontov, Gogol, Turgenev, Dostoevsky, Tolstoy, and Chekhov. Elective for all students in all departments.

RUT 3111 TWENTIETH-CENTURY RUSSIAN LITERATURE IN TRANSLATION (3)
Masterpieces of 20th century Soviet literature in English. The major works of Bely, Osipov, Babel, Zamyatin, Bulgakov, Pasternak, and Solzhenitsyn. Elective for all students in all departments.

Spanish

SPN 1120 (formerly SPN 1100) BEGINNING SPANISH I (4)
Development of basic skills in listening and reading comprehension, speaking and writing of Spanish.

SPN 1121 (formerly SPN 1101) BEGINNING SPANISH II (4)
PR: SPN 1120 or equivalent. Continued development of basic skills in listening and reading comprehension, speaking and writing of Spanish.

SPN 1130 ACCELERATED SPANISH FOR NEAR-NATIVE SPEAKERS AND OTHERS (1-6)
PR: CI. Accelerated course for near-native speakers and others with some knowledge of Spanish capable of making rapid progress.

SPN 2200 INTERMEDIATE SPANISH I (3)
PR: SPN 1121 or equivalent. A review of the basic structure of spoken and written Spanish. May be taken concurrently with SPN 2201.

SPN 2201 INTERMEDIATE SPANISH II (3)
PR: SPN 1121 or equivalent. Readings in Spanish on the intermediate level. May be taken concurrently with SPN 2201.

SPN 2240 CONVERSATION I (3)
PR: SPN 1121. For development of basic conversational skills.

SPN 2440 COMMERCIAL SPANISH (3)
PR: SPN 1121 or equivalent. An introduction to the Spanish language as used in undertaking ordinary business transactions.

SPN 3241 CONVERSATION II (3)
PR: SPN 2240 or equivalent. To improve fluency in spoken Spanish.

SPN 3300 COMPOSITION (3)
PR: SPN 2200-2201. A study of syntax, grammar and writing.

SPN 3470 OVERSEAS STUDY (1-6)
PR: SPN 1121. An intensive study-travel program in a Spanish-speaking country. Prior departmental approval and early registration are required.

SPN 3500 SPANISH CIVILIZATION (3)
PR: SPN 1121. The culture and civilization of Spain.

SPN 3520 SPANISH AMERICAN CIVILIZATION (3)
Readings and discussions on the culture and civilization of Spanish America. For majors and non-majors.

SPN 4301 EXPOSITORY WRITING (3)
PR: SPN 3300. Practical training in contemporary Spanish structure, usage and stylistic devices.

SPN 4410 ADVANCED CONVERSATION (3)
PR: SPN 3241 or equivalent. Intensive practice in the formulation and expression of ideas in standard Spanish.

SPN 4470 ADVANCED OVERSEAS STUDY (1-6)

SPN 5567 CONTEMPORARY SPAIN (3)
PR: SPN 3500 or equivalent or graduate standing. Advanced readings and discussions dealing with contemporary Spanish civilization and culture, including a study of recent social, artistic and political trends. Texts and discussions in Spanish.

SPN 5795 (Formerly SPN 5790) PHONOLOGY AND PHONETICS (3)
PR: SPN 3300. A study of the Spanish sound system.

SPN 5845 HISTORY OF THE SPANISH LANGUAGE (3)
Traces the development of Spanish from its Latin origins to the present.

SPW 3200 INTRODUCTION TO HISPANIC LITERATURE (3)
PR: SPN 2201 or equivalent. Prose fiction, drama, poetry, and essay; techniques of literary analysis.

SPW 4000 SURVEY OF SPANISH LITERATURE I (3)
PR: SPW 3200 or equivalent. A study of Spanish literature from its origins through the 17th century.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPW 4101</td>
<td>SURVEY OF SPANISH LITERATURE II</td>
<td>3</td>
<td>A study of the later periods of Spanish literature.</td>
</tr>
<tr>
<td>SPW 4130</td>
<td>SURVEY OF SPANISH-AMERICAN LITERATURE I</td>
<td>3</td>
<td>An introduction to the study of Colonial Spanish-American literature from the Discovery to Modernism.</td>
</tr>
<tr>
<td>SPW 4131</td>
<td>SURVEY OF SPANISH-AMERICAN LITERATURE II</td>
<td>3</td>
<td>An introduction to the study of Spanish-American literature from the Modernism period to the present. Emphasis on modern writers since Dario.</td>
</tr>
<tr>
<td>SPW 4900</td>
<td>DIRECTED STUDY</td>
<td>1-3</td>
<td>Departmental approval required.</td>
</tr>
<tr>
<td>SPW 4930</td>
<td>SELECTED TOPICS</td>
<td>1-3</td>
<td>Study of an author, movement or theme.</td>
</tr>
<tr>
<td>SPW 5245</td>
<td>THE PICARESQUE NOVEL</td>
<td>3</td>
<td>Realistic prose-fiction of the Renaissance and Golden Age.</td>
</tr>
<tr>
<td>SPW 5315</td>
<td>(formerly SPW 5313) GOLDEN AGE DRAMA</td>
<td>3</td>
<td>Lope de Vega, Alarcón, Tirso, Calderon, and others.</td>
</tr>
<tr>
<td>SPW 5405</td>
<td>(formerly SPW 5400) MEDIEVAL LITERATURE</td>
<td>3</td>
<td>Course gives an in-depth study of principal works and authors of the period such as <em>El Poema de Mio Cid</em>, <em>Libro de Buen Amor</em> and <em>La Celestina</em>.</td>
</tr>
<tr>
<td>SPW 5485</td>
<td>(formerly SPW 5482) POST CIVIL WAR LITERATURE</td>
<td>3</td>
<td>The drama and novel since 1936.</td>
</tr>
<tr>
<td>SPW 5535</td>
<td>ROMANTICISM</td>
<td>3</td>
<td>Poetry and drama of the first half of the 19th century.</td>
</tr>
<tr>
<td>SPW 5555</td>
<td>REALISM</td>
<td>3</td>
<td>Prose fiction of the 19th century.</td>
</tr>
<tr>
<td>SPW 5605</td>
<td>THE QUIJOTE</td>
<td>3</td>
<td>Cervantes' masterpiece <em>Don Quijote de la Mancha</em>.</td>
</tr>
<tr>
<td>SPW 5725</td>
<td>GENERATION OF 1898</td>
<td>3</td>
<td>PR: SPW 4101. The major figures of the period and their main followers.</td>
</tr>
<tr>
<td>SPW 5755</td>
<td>MEXICAN LITERATURE</td>
<td>3</td>
<td>Major writers of all genres. Emphasis on modern writers.</td>
</tr>
<tr>
<td>SPW 5765</td>
<td>LITERATURE OF ARGENTINA AND URUGUAY</td>
<td>3</td>
<td>Emphasis on the gaucheo theme and contemporary prose fiction.</td>
</tr>
<tr>
<td>SPW 5775</td>
<td>CARIBBEAN LITERATURE</td>
<td>3</td>
<td>Emphasis on contemporary Cuban and Puerto Rican literature.</td>
</tr>
<tr>
<td>SPW 5934</td>
<td>SELECTED TOPICS</td>
<td>3</td>
<td>Upper-level or graduate standing. Study of an author, movement or theme.</td>
</tr>
</tbody>
</table>

**LIBERAL STUDIES**

Program Director: J.B. Camp.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDS 3300</td>
<td>STRUCTURES OF KNOWLEDGE AND KNOWING</td>
<td>4</td>
<td>Distinguishing the modalities of human knowledge and awareness as reflected in the classic distinctions: sensory/motor/emotive; normative/descriptive/non-rational; logical/mathematical; ethical/physical/moral; qualitative/quantitative; mind/will/body; substance and function.</td>
</tr>
<tr>
<td>IDS 3310</td>
<td>PROGRESS AND UTOPIA</td>
<td>4</td>
<td>Examination of the modern backgrounds of contemporary awareness: particularly the development of historical awareness of ourselves as scientifically, technologically, and socially &quot;progressive&quot; in relation to both utopic and non-utopic futures.</td>
</tr>
<tr>
<td>IDS 3320</td>
<td>FREEDOM AND THE SELF</td>
<td>4</td>
<td>Analysis of the idea of freedom in relation to the idea of self, involving comparative treatment of the variety of standpoints of conceiving the individual personality in relation to the social context.</td>
</tr>
<tr>
<td>IDS 3434</td>
<td>SEMINAR: MAN AND NATURE</td>
<td>3</td>
<td>PR: Senior standing or CI. Examination of aspects of contemporary theories of nature and man deriving in the liberal arts, to the purpose of developing a general assessment of contemporary knowledge and methods of knowing.</td>
</tr>
<tr>
<td>IDS 4930</td>
<td>SELECTED TOPICS</td>
<td>1-4</td>
<td>Course content determined by students' and instructor's interests and needs.</td>
</tr>
</tbody>
</table>

**LINGUISTICS**


<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESL 1383</td>
<td>ENGLISH FOR FOREIGN STUDENTS I</td>
<td>3</td>
<td>A special course for students learning English as a second language. Intensive study and drill in American English pronunciation and listening comprehension.</td>
</tr>
<tr>
<td>ESL 1384</td>
<td>ENGLISH FOR FOREIGN STUDENTS II</td>
<td>3</td>
<td>PR: ESL 1383 or CI. Intensive study and drill in American English pronunciation and listening comprehension. Emphasis on dictation and speaking skills.</td>
</tr>
<tr>
<td>LIN 3010</td>
<td>INTRODUCTION TO LINGUISTICS</td>
<td>3</td>
<td>Introduction to the basic principles of linguistic science; phonological and grammatical analysis and description; language change and genetic relationships.</td>
</tr>
<tr>
<td>LIN 3801</td>
<td>LANGUAGE AND MEANING -6A</td>
<td>3</td>
<td>A survey introduction for non-specialists to the basic principles of semantics and the way language conveys ideas. This course is also available on WUSF-TV Channel 16 by the O.J. Program.</td>
</tr>
<tr>
<td>LIN 4040</td>
<td>DESCRIPTIVE LINGUISTICS</td>
<td>3</td>
<td>PR: LIN 3010 or CI. Introduction to the basic techniques of formalizing linguistic descriptions through elementary phonological, morphological, and syntactic data solution-problems drawn from a variety of languages. Both taxonomic and generative analysis and descriptions will be developed and compared.</td>
</tr>
<tr>
<td>LIN 4377</td>
<td>LANGUAGE TYPES OF THE WORLD</td>
<td>3</td>
<td>An introduction to linguistic typology consisting in a systematic comparison of characteristic representatives of the various language types, such as Vietnamese, Malay, Hungarian, Swahili, Sanskrit, Hebrew, and others. No knowledge of any of these languages on the part of the student is presumed.</td>
</tr>
<tr>
<td>LIN 4600</td>
<td>LANGUAGE AND SOCIETY</td>
<td>3</td>
<td>PR: LIN 3010. An analysis of the interrelation of a language and the structure of the society using it. The linguistic behavior pattern characteristic of particular social, political, economic, educational, and racial groups. Problems in communication between strata.</td>
</tr>
<tr>
<td>LIN 4701</td>
<td>PSYCHOLINGUISTICS</td>
<td>3</td>
<td>PR: LIN 3010. The nature of linguistic structure and its correlates in behavior and perception. Examination of the hypotheses of Whorf, Chomsky, and others.</td>
</tr>
<tr>
<td>LIN 4710</td>
<td>LANGUAGE AND COMMUNICATION: ACQUISITION AND DEVELOPMENT</td>
<td>3</td>
<td>PR: LIN 3010. A survey of current research and theory in the processes of normal acquisition and development of language and communication in children. The acquisition and development of phonology, syntax, semantics, pragmatics, and nonverbal communication and the role of language in general cognitive development.</td>
</tr>
<tr>
<td>LIN 4903</td>
<td>DIRECTED READING</td>
<td>1-3</td>
<td>PR: CI. Readings in special topics. Must be arranged prior to registration.</td>
</tr>
<tr>
<td>LIN 4930</td>
<td>SELECTED TOPICS</td>
<td>1-3</td>
<td>PR: CI. Course content depends upon students' needs and instructor's interest and may range over the entire field of linguistics.</td>
</tr>
</tbody>
</table>
MASS COMMUNICATIONS


ADV 3000 INTRODUCTION TO ADVERTISING (3)
PR: MMC 3100 and MMC 3602. A study of the structures, functions, and persuasive language of advertising in mass media with attention to social, political, economic, and legal aspects.

ADV 3002 CREATIVE STRATEGY II (3)
PR: ADV 3000 for advertising majors; VIC 3000 for other Mass Comm majors. Application of graphic design principles to various areas of advertising. Combining visual and verbal elements effectively.

ADV 3001 CREATIVE STRATEGY I (3)
PR: ADV 3000 and ECO 2023. Study of laboratory experience in preparation of advertising copy for newspapers, magazines, radio, television, direct mail, outdoor displays, and special items.

ADV 3103 RADIO-TELEVISION ADVERTISING (3)
PR: ADV 3000. An intensive study and analysis of radio and television for advertising purposes, including copywriting, script and storyboard preparation, time buying and selling techniques, audience research methods, and basic production concepts.

ADV 3300 ADVERTISING MEDIA STRATEGY (3)

ADV 3700 RETAIL ADVERTISING PLANNING AND EXECUTION (3)
PR: ADV 3000 and ADV 3101. A study of retail advertising, including management decisions, processes, procedures, media planning, production techniques, and problems affecting the development of advertising to fulfill retail objectives.

ADV 4801 ADVERTISING CAMPAIGNS (3)
PR: ACG 2001, ADV 3001, ADV 3300, MMC 4020, ECO 2013, ECO 2023, and MAR 3023. Advanced advertising course requiring planning and production of complete general advertising campaign, including research, production methods, budgeting, and media schedules.

ADV 4940 ADVERTISING PRACTICUM (1)
PR: Senior standing and CI. For selected advertising sequence majors. Practical experience outside the classroom in a live advertising situation where the student works for academic credit under the tutelage of a professional practitioner. (S/U Only)

FIL 3004 THE FILM AS MASS COMMUNICATION I: SYNTAX (3)
PR: MMC 3100 and MMC 3602. The language, conventions, elements, and patterns of the film medium as related to current models of effective mass communication and new theories of non-verbal communication. Concurrent laboratory experiences in control of light and line.

FIL 3200 THE FILM AS MASS COMMUNICATION II: RHETORIC AND STYLISTICS (3)
PR: FIL 3004. A continuation of FIL 3004 to include the effective arrangements of scenes and sequences in motion picture and television films. Concurrent laboratory experiences in sound and editing.

FIL 3201 THE FILM AS MASS COMMUNICATION III: WORKSHOP (3)
PR: FIL 3200. Practical exercises, demonstrations, and experiences in applying material covered in FIL 3004 and FIL 3200.

FIL 4205 ADVANCED CAMERA TECHNIQUES (3)
PR: FIL 3004. Advanced camera technology, professional procedures, emulsion selection, color control, studio and location shooting, laboratory methods, matte shooting, and special effects.

FIL 4206 ADVANCED FILM LIGHTING (3)
PR: FIL 4205. Advanced lighting of studio and location sets stressing professional procedures and standards from preproduction to post production.

FIL 4207 SENSITOMETRY AND PHOTOMETRICS (3)
PR: FIL 3004. The materials and processes of cinema photo; response of materials to development and exposure.

FIL 4300 THE DOCUMENTARY FILM (3)
PR: Sophomore standing. The development of the documentary movement; earliest newsreels; Flaherty, Grierson and the GPO Unit. U.S. Government-sponsored films, the Canadian Film Board, Cinema Verite; study of about 60 fact-films from some 20 countries. Stresses objective criteria, critical analysis.

FIL 4404 SOCIAL HISTORY OF THE FILM, 1945 TO THE PRESENT (3)
PR: MMC 3100 and MMC 3602. A continuation of FIL 4403, covering the development of the film from 1945 to the present. (FIL 4403 is not a prerequisite.)

JOU 3006 MAGAZINES IN SOCIETY (3)
PR: MMC 3100 and MMC 3602. A study of the development of various types of magazines in America, and a critical analysis of current problems and performances of periodicals along with changes indicated for the future.

JOU 3100 BEGINNING REPORTING (3)
PR: MMC 3100 and 3602. Basic instruction in news judgment, sources of news, newspaper, and news-writings techniques. Typing ability is required.

JOU 3101 ADVANCED REPORTING (3)
PR: POS 2041, JOU 3100, or RTV 3300 (RTV majors only), JOU 4200, and PHIL 1101. Getting information and writing the more complex and specialized stories, techniques of investigative and analytical reporting, including ethical and legal considerations.

JOU 3300 MAGAZINE ARTICLE AND FEATURE WRITING (3)
PR: CRW 3100, JOU 3100. Planning, researching, writing, and marketing articles for general and special interest magazines and newspaper magazine supplements; experiences in developing article idea; inductive analysis of contemporary magazine articles.

JOU 3306 CRITICAL WRITING: EDITORIALS, REVIEWS, COLUMNS (3)
PR: JOU 3101. Interpretive and opinion writing for the mass media. Analysis and discussion of current events as a basis for critical thinking and editorial writing; evaluation of editorial pages of leading newspapers. Study of journalistic techniques involved in writing art, drama, music, and book reviews, satire, sports, or personal columns.

JOU 3940 REPORTING PRACTICUM (1)
PR: JOU 4104 and CI. For selected News-Editorial Sequence majors. Practical experience outside the classroom in a live newspaper reporting situation where the student works for academic credit under the tutelage of a professional practitioner. (S/U Only)

JOU 4104 PUBLIC AFFAIRS REPORTING (3)
PR: JOU 3101, POS 2041 and POS 3142. Covering city council meetings, courthouse, city hall, courts, society, and other special assignments. Emphasis is on coverage of major governmental units of all levels of government, including examination and interpretation of public documents and records.

JOU 4200 NEWS EDITING I (3)
PR: ECO 2013, JOU 3100, and SYG 1010. Evaluating news and its display; editing and rewriting copy for the mass media, with emphasis on the daily newspaper; news judgment, headlines, makeup; ethical problems.

JOU 4202 NEWS EDITING II (3)
PR: JOU 4200, POS 2041. Continuation of JOU 4200, with more intensive practice on the copydesk in evaluating, processing, editing, and headlining live wire copy and local copy; experimental makeup; managing the copy desk. Current events and analysis of selected nation newspapers.

JOU 4206 NEWSPAPER DESIGN AND TYPOGRAPHY (3)
PR: ADV 3102 and JOU 4200 or CI. Theoretical and practical applications of newspaper design; problems in newspaper layout; the research of newspaper typography and design and its application; design of contemporary newspapers.

JOU 4208 MAGAZINE EDITING AND PRODUCTION (3)
PR: JOU 3300, JOU 4200. A study of magazines in America: preparation of copy, photographs and art for printing; issue planning and
design; examination of production methods, including printing typography and mechanics. Preparation of a detailed proposal and comprehensive for a hypothetical magazine.

JOU 4500 NEWSPAPER ORGANIZATION AND MANAGEMENT (3)

JOU 4800 MASS MEDIA STUDIES (3)
PR: Junior standing. JOU 3100, MMC 3602. Intensive review of mass communications theory, practice, and content as they relate to teaching mass media in secondary schools, with some practical on supervision of school publications. Not open to Mass Communications majors.

JOU 4941 EDITING PRACTICUM (1)
PR: Senior standing, JOU 4202 and Cl. For selected News-Editorial Sequence majors. Practical experience outside the classroom at a daily newspaper copydesk, where the student works for academic credit under the tutelage of a professional news editor. (S/U only.)

JOU 4944 MAGAZINE PRACTICUM (1)
PR: Senior standing and Cl. For selected Magazine Sequence majors. Practical experience outside the classroom in a live magazine or industrial publication situation where the student works for academic credit under the tutelage of a professional practitioner. (S/U only.)

MMC 3000 SURVEY OF MASS COMMUNICATIONS (2)
The function of agencies of mass communications and their impact upon society; critical analysis of press performance in relation to current events; evaluation of press through a study of its history. Not open for credit to Mass Communications majors.

MMC 3100 WRITING FOR THE MASS MEDIA (3)
PR: Sophomore standing. 27 GPR; grade of "C" in ENC 1101, ENC 1102, typing proficiency, and passing score on English Diagnostic Test. An introduction to the basic skills of writing for the mass media with practice in library research, persuasive writing, and informational writing.

MMC 3602 MASS COMMUNICATIONS AND SOCIETY (3)
PR: Sophomore standing. A survey of the history, theory processes, and philosophy of mass communications and the mass media in the United States, and their relationship to the other major institutions of American society.

MMC 3705 AND THE POPULAR ARTS IN AMERICA (3)
A survey of the growth of the popular arts (motion pictures, radio, television, art best sellers, jazz and other forms of music, the comics, etc.) as mirrors, transmitters and transformers of American cultural values.

MMC 3936 SELECTED TOPICS IN MASS COMMUNICATIONS STUDIES (1-3)
Courses designed to meet current or specific topics of interest to the instructor or student.

MMC 4123 MEDIA SCRIPT WRITING (3)
PR: MMC 3100 and MMC 3602. An introduction to the techniques of writing scripts for photographic and multi-media presentation, electronic media, and industrial and documentary film.

MMC 4200 HISTORY AND PRINCIPLES OF COMMUNICATIONS LAW (3)
PR: MMC 3100 and MMC 3602. Historic and Constitutional background, freedom and control of expression, statutory enactments, major Supreme Court cases, court decisions and administrative rulings which have shaped legal control of communications.

MMC 4201 GOVERNMENT AND THE MEDIA (3)
PR: MMC 4200. The relationships between government and the media, with emphasis on current activities of such regulatory agencies as the Federal Communications Commission, the Federal Trade Commission and other commissions; the courts, the Congress and the Executive; examination of the media and industry codes and standards.

MMC 4300 INTERNATIONAL COMMUNICATION (3)
Mass communications as internal and international systems; flow of the news; international news communications network; satellite communications, overseas activities of American media interests; international media organizations and their activities.

MMC 4420 RESEARCH METHODS IN MASS COMMUNICATIONS (3)
PR: MMC 3100, MMC 3602, and/or Cl. An introduction to the theory and practice of quantitative and historical research methods as applicable to the study of media and mass communications. Emphasis on survey research, evaluation of data, and report writing.

MMC 4900 DIRECTED READING IN MASS COMMUNICATIONS (1-3)
PR: Junior standing, CC and Cl. Reading and directed study in special topics.

MMC 4910 INDIVIDUAL RESEARCH IN MASS COMMUNICATIONS (1-3)
PR: CC and Cl. The course provides means for a student to do independent study in an area not covered by a numbered course.

MMC 4936 SELECTED TOPICS IN MASS COMMUNICATIONS STUDIES (1-3)
PR: Junior standing. Courses designed to meet current or specific topics of interest to instructors and students.

MMC 4945 MEDIA INTERNSHIP-SEMINAR (3)
PR: Cl and 15 hours in Mass Com. courses and completion of an 8-12 week media internship with newspaper, broadcast station, or other media-related agency approved by the department and paid by the sponsor. Reports on experiences for discussion and evaluation. (S/U only.)

PGY 3610 PHOTOJOURNALISM I (3)
PR: MMC 3100 and MMC 3602. Camera operation, darkroom techniques, picture composition; editing, ethics, history, and laws in connection with photojournalism.

PGY 3620 PHOTOJOURNALISM II (3)
PR: PGY 3610. Advanced process and practice of photography for publication. Content includes advanced camera and laboratory techniques, publication requirements and theory of photochemical color separation used in magazine and newspaper. Emphasis is placed on student production.

PGY 4110C COLOR PHOTOGRAPHY (3)
PR: PGY 3620. Development of knowledge and skills of color photography for publication and presentation. Emphasis is on the use of transparency and negative color materials in their application to the media. Laboratory required.

PUR 3000 PRINCIPLES OF PUBLIC RELATIONS (3)
PR: ECO 2013, ECO 2023, MAN 3025, MMC 3100 and MMC 3602. The functions of public relations within corporate and institutional structures; ethical standards of practice, and relationships of the practice to the public media and other modes of contemporary communication.

PUR 4001 ADVANCED PUBLIC RELATIONS (3)
PR: PUR 3000, PUR 4100, and MMC 4420. As final course in PR sequence, it involves intensive study of counseling and problem-solving techniques used in professional practice. Analysis of case studies and preparation of complete PR program. Extensive reading in the literature of contemporary practice.

PUR 4100 WRITING FOR PUBLIC RELATIONS (3)
PR: JOU 3100, PUR 3000. Persuasive writing techniques unique to the practice of public relations; application of principles and ethical practices to problem-solving situations drawn from case studies; writing formats used in promotional and publicity literature.

PUR 4601 PUBLIC INFORMATION (3)
PR: POS 2041, POS 2112, and PUR 4100. The nature of government public information organization, practices, and criticisms thereof; the role of public information specialists in reporting government at all levels to the public; conceptual differences in approach and techniques between governmental and private sector public relations.

PUR 4700 PUBLIC RELATIONS PRACTICUM (3)
PR: Senior standing and Cl. For selected Public Relations Sequence majors. Practical experience outside the classroom in a professional public relations situation where the student works for academic credit under the tutelage of a professional practitioner.
PHILOSOPHY 151

PHILOSOPHY


PHI 3000 INTRODUCTION TO PHILOSOPHICAL TRADITIONS -6A

An historical introduction to selected philosophical traditions through readings from representative thinkers.

PHI 3100 ANCIENT AND MEDIEVAL PHILOSOPHY (3)

A survey of philosophy from the pre-Socratics through Plotinus.

PHI 3420 MODERN PHILOSOPHY (3)

A survey of Western philosophy from Descartes through Thomas Reid.

PHI 3440 RECENT PHILOSOPHY (3)

A survey of philosophy from Kant through nineteenth century philosophy.

PHI 4600 CONTEMPORARY PHILOSOPHY -6A (3)

Selected schools of twentieth century thought such as idealism, positivism, pragmatism, realism, and existentialism.

PHI 4700 AMERICAN PHILOSOPHY (3)

Major traditions in American thought—Puritanism, the Enlightenment, Transcendentalism, Idealism, Pragmatism, and Analytic Philosophy—in relation to American culture.

PHI 1000 GREAT PHILOSOPHERS OF THE WESTERN WORLD (2)

Lectures and discussions of the great philosophers since Plato, focusing on particular problems.

PHI 1010 PHILOSOPHIC CONTROVERSIES (2)

A discussion of central controversies in philosophy such as the nature of reality, pain, freedom, truth, morality, etc.

PHI 1103 PRACTICAL LOGIC -6A (2)

Elementary theory and application of logical fallacies, deductive and inductive logic. Not for majors.

PHI 3011 INTRODUCTION TO PHILOSOPHICAL PROBLEMS -6A (3)

An introduction to major philosophical problems through readings from representative thinkers.

PHI 3100 LOGIC -6A (4)

Language analysis and classical and modern formal logic, including the logic of classes and propositions, and discussion of philosophical issues.

PHI 3404 SCIENTIFIC METHOD (3)

Probability, inductive inference, the hypothetico-deductive method, experimentation, and selected topics in the philosophy of science.

PHI 3600 ETHICS (3)

An examination of the writing of the philosophers: Plato, Aristotle, Kant, Sartre, etc., about moral problems and principles.

PHI 3601 CONTEMPORARY MORAL ISSUES (3)

Open to all students. A study of contemporary moral issues concerning racism, sex, sexism, abortion, poverty, crime, war, suicide, and human rights in general.

PHI 3700 PHILOSOPHY OF RELIGION (3)

Analysis of religious experience and activity and examination of principal religious ideas in light of modern philosophy.

PHI 3905 DIRECTED STUDY (1-4)

Pr: CI. Individual study directed by a faculty member. Approval slip from instructor required.

PHI 3930 SELECTED TOPICS (1-4)

Pr: CI. Selected topics according to the needs of the student.

PHI 4320 PHILOSOPHY OF MIND -6A (3)

A study of historical and current issues in philosophy of mind, including the nature and status of mind, mind/body dualism, the relationship of mind and body, the problems of other minds, the physical basis for intelligence, etc.

PHI 4360 THEORY OF KNOWLEDGE -6A (3)

An examination of human knowledge; its scope and limits, and an evaluation of evidence, criteria of truth, the nature of belief, conditions for meaningfulness, theories of perception, and a study of memory and sense perception in the four major fields of nature, history, personal experience, and the a priori.

PHI 4800 AESTHETICS (3)

A study of traditional and contemporary aesthetic theories with emphasis on creative process, the nature of the art work, the aesthetic response, expressiveness, form and content as well as art and morality.

PHI 4905 DIRECTED STUDY (1-4)

Pr: CI. Individual study directed by a faculty member. Approval slip from instructor required.
PHI 4930 SELECTED TOPICS (1-3)
Pr: CL. Selected topics according to the needs of the senior students. Approval slip from instructor required.

PHI 5135 SYMBOLIC LOGIC (3)
Pr: PHI 3100 or CL. Mathematical treatment of formal logic, including methods of proof, quantification, the logic of relations and an introduction to properties of deductive systems.

PHI 5225 PHILOSOPHY OF LANGUAGE (3)
Pr: Eight hours of philosophy, major in linguistics, or CL. An examination of semantical, syntactical, and functional theories of language with special attention given to the problems of meaning, linguistic reference, syntactical form, and the relations between scientific languages and ordinary linguistic usage. Seminar format.

PHI 5913 RESEARCH (1-4)
Pr: CL. Individual research supervised by a faculty member. Approval slip from instructor required.

PHI 5934 SELECTED TOPICS (1-3)
Pr: CL. Selected topics according to the needs of the student. Approval slip from instructor required.

PHM 3021 PHILOSOPHIES OF LOVE AND SEX (3)
Discussion of Philosophies of Love/Sex of Plato, Aristotle, Epicurus, Socratic, Hume, Kant, Schopenhauer, Russell, Sartre, Marx, etc.

PHM 3100 SOCIAL PHILOSOPHY -6A (3)
An analysis of rival theories of social order and their philosophical foundations.

PHM 3222 PHILOSOPHIES OF THE CITY (3)
A study of the current issues in the philosophy of the city including the nature of community, alienation and the city, art and the city, political philosophy of the city, the city and business, nature versus the city, the city and beauty, etc.

PHM 3400 INTRODUCTION TO PHILOSOPHY OF LAW (3)
A study of the fundamental concepts of law from a philosophic standpoint including crime, justice, punishment, free speech, insanity, etc.

PHM 4322 ANCIENT AND MEDIEVAL POLITICAL PHILOSOPHY -6A (3)
A survey of political philosophy from 6 B.C. until 1600 A.D., including an examination of the ethical, metaphysical, and epistemological bases of these philosophies.

PHM 4331 MODERN POLITICAL PHILOSOPHY -6A (3)
A survey of political philosophy from 1600 A.D. until 1900 A.D., including an examination of the ethical, metaphysical, and epistemological bases of these philosophies.

PHM 4340 CONTEMPORARY POLITICAL PHILOSOPHY -6A (3)
A survey of political philosophy in the twentieth century, including an examination of the ethical, metaphysical, and epistemological bases of these philosophies.

PHP 3786 EXISTENTIALISM -6A (3)
A study of the religious and atheistic existentialists and the bearing of their views on religion, ethics, metaphysics, and theory of knowledge.

PHP 4000 PLATO -6A (3)
The examination of Plato will include the dialogues Protagoras, Gorgias, Meno, Republic, etc.

PHP 4010 ARISTOTLE -6A (3)
Study of Aristotle's philosophy.

PHP 4410 KANT (3)
Lecture and discussion of Kant's philosophy, especially The Critique of Pure Reason.

PHP 4740 RATIONALISM -6A (3)
A careful study of the epistemologies of Descartes, Spinoza, Leibniz, and Malebranche.

PHP 4745 EMPIRICISM -6A (3)
A careful study of epistemologies of Locke, Berkeley, Hume, and Thomas Reid.

PHP 4784 ANALYTICAL PHILOSOPHY -6A (3)
A study of the method devoted to clarifying philosophical problems through analysis of the language in which these problems are stated.

PHP 4788 PHILOSOPHY OF MARXISM -6A (3)
A critical survey of Marxist philosophy from Marx and Engels to Mao Tse-Tung and Herbert Marcuse. Hegelian foundations of Marxist philosophy analyzed in detail.

RELGIOUS STUDIES

GRE 3040 NEW TESTAMENT GREEK I (3)

GRE 3041 NEW TESTAMENT GREEK II (3)

REL 2300 INTRODUCTION TO WORLD RELIGIONS -6A (3)
Belief structures and behaviors of native American religions, Hinduism, Buddhism, Chinese religions, Judaism, Christianity and Islam, examined in films and in the reading of core religious texts.

REL 3000 INTRODUCTION TO RELIGION (3)
This course examines the phenomenon of religion to answer the question: Religion what is it? Religious thought (mythology and theology) and religious behavior (ritual and morality) are closely examined.

REL 3120 RELIGION IN AMERICA (3)
To examine the movement from state church to pluralism in American religious institutions, the religious results of non-Protestant immigration; the Jewish factor; the effect of home missions and social concern programs upon American life; political entanglements and the concept of church/state separation.

REL 3131 NEW RELIGIONS IN AMERICA (3)
A course designed to allow the student to survey the wide spectrum of contemporary sects and cults and learn what motivates their development.

REL 3145 WOMEN AND RELIGION -6A (4)
Analysis of the status and roles of women as compared to men in the Judeo-Christian tradition. Contemporary issues of feminist theology, and the controversies surrounding them. (May also be taken for credit in Women's Studies.)

REL 3172 RELIGION, ETHICS AND SOCIETY -6A (3)
Explores the relations between religion, ethics, and society in Eastern and Western cultures, and the critical problems raised by the emergence of modern, secularized civilization. Open to majors and non-majors.

REL 3201 LAND OF THE BIBLE (3)
A survey of the natural features, historical forces, and cultural movements of the Holy Land that shaped its peculiar role in history with respect to the ancient Hebrews. Particular attention will be paid to the period from the Hebrew Conquest to time of Jesus.

REL 3210 INTRODUCTION TO THE BIBLE/OLD TESTAMENT (3)
An introduction to the critical study of the Hebrew Scriptures against the background of the ancient Near East, with attention to the history and religion of the Hebrew people. REL 3210 and REL 4221 may not both be credited toward the major.

REL 3243 INTRODUCTION TO THE NEW TESTAMENT (3)
An introduction to the critical study of the New Testament in context of Christian beginnings in the first century A.D. REL 3243 and REL 4246 may not both be credited toward the major.

REL 3280 BIBLICAL ARCHAEOLOGY (3)
An examination in depth of the archaeological data relating to the background and content of the Bible, including ancient customs, Biblical sites and cities, Biblical history, and material culture of the Biblical period. Special attention will also be given to excavation methods and interpretation of archaeological evidence.

REL 3310 WORLD RELIGIONS (5)
An introduction to and a comparison of the ideas, the literature and institutions of the major religions of the world including Judaism.
REL 3332 BUDDHISM (3)
The study and comparison of Theravada and Mahayana Buddhism in their philosophical and psychological dimensions.

REL 3335 RELIGIONS OF CHINA AND JAPAN (3)
This course will investigate the philosophy of ancient China and its two major interpreters, Lao Tzu and Confucius. It will also look at the native Japanese Shinto religion.

REL 3342 THE RELIGIONS OF INDIA (3)
The sources of Hindu philosophic thought, and understanding of the psychology of the Yogas, and a study of the Hindu holy men and women are the three main concerns of this course.

REL 3420 CONTEMPORARY RELIGIOUS THOUGHT (3)
An examination of the central ideas of recent theological thinkers; such men as Barth, Brunner, Bultmann, Bonhoeffer, Rahner, Tillich, Cox, Althier, Buber, Niebuhr.

REL 3501 HISTORY OF CHRISTIANITY (4)
The historical development of Christianity, its ideas and institutions, from the first century to the rise of "religious modernism" in the 19th century.

REL 3600 INTRODUCTION TO JUDAISM (3)
An introduction to Judaism: its religious tenets; its codes of ethics; its rites and customs. This course is intended as a description of what it means to be a Jew.

REL 3611 HISTORY OF JUDAISM I (3)
A study of the evolution of the religion of ancient Israel from the Exodus to the end of the second century of our era, seen against the background of its historical, geographical, political, social and spiritual setting.

REL 3612 HISTORY OF JUDAISM II (3)
A study of the history of Judaism and the Jews from the third century of our era through the Middle Ages to the Emancipation in the 19th century. Taking History of Judaism I first is advantageous.

REL 3613 MODERN JUDAISM (2)
A study of Jewish life in the West since 1789, emphasizing Jewish beliefs, practices, and institutions.

REL 3900 DIRECTED READINGS (1-4)
PR: CI. Individual guidance in concentrated reading on a selected topic.

REL 3936 SELECTED TOPICS (1-4)
PR: CI. Course contents depend on students' needs.

REL 4171 CONTEMPORARY CHRISTIAN ETHICS -6A (3)
PR: Jr. standing or CI. This course will survey several major approaches to contemporary Christian ethics and their application to a number of ethical issues peculiar to personal and social life in contemporary society. Open to majors and non-majors.

REL 4182 COMPARATIVE MYSTICISM (4)
A course designed to acquaint the student with the nature of mystical experience, and some of the varieties of mystical experience recorded in the writings of the mystics.

REL 4191 RELIGION, TECHNOLOGY AND SOCIETY (3)
An exploration of the way in which religion and technology have interacted in Western civilization so as to both express and transform human values and identity. Special emphasis will be given to the value questions raised by modern technology. Open to majors and non-majors.

REL 4192 RELIGION, SCIENCE AND SOCIETY (3)
This course will explore the religious roots of science and the history of its emancipation. Special emphasis will be given to the interaction of religion and science in contemporary society. Open to majors and non-majors.

REL 4221 BIBLE I: OLD TESTAMENT LAW AND HISTORY (4)
An examination of the Pentateuch (Torah) from the point of view of its literary development, religious traditions, historical background, law, covenant theology, and the history of the religion of Israel.

REL 4224 BIBLE II: PROPHETS, WRITINGS (4)
PR: REL 3210 or REL 4221 or CI. An investigation of the prophetic movement and the historical and cultic writings in Israel from the point of view of theological developments, history presupposed, and the religious institutions depicted. Special attention is given to a figure such as Job and the problem of evil.

REL 4235 APOCRYPHA AND PSEUDEPIGRAPHA (3)
A critical study of the books written "between the Testaments," a few of which (the Apocrypha) are sometimes regarded as canonical by some groups, but most of which (the Pseudepigrapha) are not. Special attention will be paid to the role of these books in the development of early Christianity and post-Biblical Judaism.

REL 4244 NEW TESTAMENT I: GOSPELS, ACTS (4)
An exploration of the Gospels and Acts, including their backgrounds in Judaism and pagan religion, literary and form criticism, historical Jesus research, and the social history of earliest Christianity.

REL 4250 JESUS' LIFE AND TEACHINGS (4)
PR: CI. An examination of the various historical studies made in the quest of identifying Jesus as an historical figure. The concern is to make a reasonable assessment of who Jesus was and what he was saying to the Jews in Palestine at the beginning of the common era.

REL 4252 NEW TESTAMENT II: THE LETTERS OF PAUL AND OTHER NEW TESTAMENT WRITINGS (4)
PR: REL 4244 or REL 3243 or CI. An investigation of the phenomenon of earliest Christianity in its Pauline and non-Pauline forms, particularly as reflected in Paul's letters and in other writings of the New Testament. Special attention is given to the program of Apocalyptic, as in the book of Revelation.

REL 4295 DEAD SEA SCROLLS (4)

REL 4508 FROM MYTH TO CHRISTIANITY (4)
Study of the religions/mythologies of the ancient Middle East and Eastern Mediterranean and how their influences shaped the theology and practices of Christianity up to the end of the fourth century influences, many of which continue to be evident in the traditional Roman and Eastern Orthodox churches.

REL 4670 JUDAISM AND CHRISTIANITY AFTER THE HOLOCAUST (4)
This course will explore the impact of the Holocaust on Jewish and Christian thought and identity in the light of the history of religious and cultural anti-semitism in Western civilization. Open to majors and non-majors.

REL 4910 UNDERGRADUATE RESEARCH (1-4)
PR: Junior standing and CI. Individual investigations with faculty supervision.

REL 4931 SEMINAR IN RELIGION (3)
A course designed for persons, especially Religious Studies majors, whose prior religious studies have prepared them for a cooperative creative and/or research effort in the area of religion.

REL 4936 SELECTED TOPICS (1-4)
PR: Junior standing and CI. Individual investigations with faculty supervision.

REL 4939 THE DEVELOPMENT OF RELIGIOUS STUDIES (3)
Course designed for senior majors (and minors) in religious studies to complement REL 4931 (Senior Seminar). Discussion of key figures and methodological advances in the development of the field from the 18th century to present, with readings of classics in the development.

REL 5937 SELECTED TOPICS (1-4)
PR: Senior standing and CI. Course contents depend on students' needs.

Ancient Studies Sequence

CLA 3000 ANCIENT CIVILIZATIONS (4)
Study of the character, ideas, and cultural achievements of the
peoples of the Ancient Middle East and Mediterranean and their relevance for modern Western civilization.

CLA 3801 HISTORY OF THE ALPHABET (2)
Study, in reasonable detail, of the evolution of our 'Roman' alphabet, as well as of other ancient and modern alphabets, from the writing system of ancient Egypt.

CLA 4160 EGYPTIAN CIVILIZATION (3)
Study of the Ancient Egyptian civilization, including customs, religion, art and architecture, language and literature, science and the calendar, and an introduction to hieroglyphic writing. (Alternate years.)

CLA 4171 MESOPOTAMIAN CIVILIZATION (3)
Study of the Ancient Mesopotamian (Sumero-Babylonian) civilization, including customs, religion, art and architecture, languages and literatures, science and the calendar, and an introduction to cuneiform writing. (Alternate years.)

CLA 4900 DIRECTED READINGS (1-4)
PR: Consent of coordinator prior to registration. Readings in special topics chosen by the student in cooperation with the instructor. Reading of literature also possible in English translation.

CLA 4930 SELECTED TOPICS (1-4)
Course contents depend on student demand and instructor's interest and may range over the whole field of Ancient languages, literatures, and civilizations. Offerings on a semi-regular basis include Tongues of the Bible (2), and The Bible as History (3).

HEB 3120, 3121 (formerly HEB 3100, 3101)
BASIC HEBREW I, II (4,4)
Designed to give students a working knowledge of Classical (Biblical) Hebrew and to introduce them to the Biblical literature in the original language.

HEB 4250, 4251 ADVANCED HEBREW I, II (4,4)
PR: HEB 3120, HEB 3121, or equivalent. Study and analysis of selected passages from pre-Exilic, Exilic, and post-Exilic Biblical and extra-Biblical Hebrew texts to the second century B.C.E. Survey of the Hebrew literature from its beginning to the end of the Second Commonwealth.

The following entries are intended as service courses for students in related graduate programs, in particular Anthropology, History, and Linguistics. In all of these, permission from the coordinator is required prior to enrollment.

CLA 5900 DIRECTED READINGS (1-4)
Readings in special topics chosen by the student in cooperation with the instructor. Reading of literature also possible in English translation.

CLA 5910 INDIVIDUAL RESEARCH (1-4)
Specialized individual work in particular areas of student's interest.

CLA 5930 SELECTED TOPICS (1-4)
Course contents depend on student demand and instructor's interest and may range over the whole field of Ancient languages (including comparative studies), literatures, civilizations, and epigraphy.

NOTE: In any of the numbers CLA 4900, CLA 4930, CLA 5900, CLA 5910, CLA 5930, enrollment is repeatable for different subject matters.
ACG 4931 SELECTED TOPICS IN ACCOUNTING (1-4)
PR: CL. The course content will depend on student demand and instructor’s interest.

TAX 4001 FEDERAL TAXES I (3)
PR: ACG 2011. An introduction to the federal income tax structure. Use of tax services and the concept of taxable income primarily applicable to individuals.

ACG 5205 ADVANCED ACCOUNTING (4)
PR: ACG 3112. Accounting for business combinations, preparation of consolidated financial statements, home office and branch operations, accounting for international operations and partnership.

ACG 5325 FINANCIAL/MANAGERIAL ACCOUNTING (3)
This course provides students in the M.S. degree in Management with a basic knowledge of financial and managerial accounting in both the public and private sectors. The course concentrates on the uses and limitations of accounting data for planning, control, and other decision making activities.

ACG 5505 NONPROFIT ORGANIZATION ACCOUNTING (3)

ACG 5805 CONTEMPORARY ACCOUNTING THOUGHT (3)
PR: Intermediate Accounting II or equivalent. An introduction to the federal income tax structure. Special topics and the concept of taxable income primarily applicable to business enterprises.

ACG 5935 SELECTED TOPICS IN ACCOUNTING (1-4)
PR: CL. To allow advanced undergraduate students and graduate students to research and study contemporary and emerging topics in the field. May be repeated up to 6 credit hours.

TAX 5015 FEDERAL TAXES II (3)
PR: TAX 4001. Advanced study of the federal income tax structure. Special topics and the concept of taxable income as it applies primarily to business enterprises.

TAX 5405 TAXATION OF TRUSTS AND ESTATES (3)
PR: TAX 4001 and Admission to the M.Acc Program. A study of income tax problems involving trusts and estates and beneficiaries, including simple and complex trusts, distributable net income, and grantor trusts. The planning and business aspects of trusts and estates are emphasized.

ECONOMICS


ECO 2013 ECONOMIC PRINCIPLES (MACROECONOMICS) (3)
PR: ECO 2023. Introduction to the theory of income determination with emphasis on applications of monetary and fiscal policies. Topics discussed are: objectives of full employment, price stability,
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 2023</td>
<td>ECONOMIC PRINCIPLES (MICROECONOMICS)</td>
<td>(3)</td>
<td>Fundamental economic concept of scarcity, and the problem of choice. How an economy decides what to produce, how to produce and how to distribute goods and services to participants in the economy. Attention is focused on factors affecting consumer wants and on the determination of prices in markets.</td>
</tr>
<tr>
<td>ECO 2023</td>
<td>ECONOMIC PRINCIPLES (MACROECONOMICS)</td>
<td>(3)</td>
<td>Examination of the impact of the financial sector on real and nominal economic magnitudes. The course approaches its subject matter through the theory of portfolio and capital adjustments.</td>
</tr>
<tr>
<td>ECO 2023</td>
<td>THEORY OF ECONOMIC DYNAMICS</td>
<td>(3)</td>
<td>Examination of macroeconomic processes as they occur through time. The determination and characteristics of long run growth paths based upon both Keynesian and Neoclassical models are discussed. Empirical studies, forecasting, and policy issues are also considered.</td>
</tr>
<tr>
<td>ECO 2023</td>
<td>HISTORY OF ECONOMIC HISTORY</td>
<td>(3)</td>
<td>The growth and evolution of American economic institutions from Colonial times to the present.</td>
</tr>
<tr>
<td>ECO 2023</td>
<td>INTERNATIONAL MONETARY ANALYSIS</td>
<td>(3)</td>
<td>Role of international trade in the U.S. economy. Emphasis is placed on the bases of trade and the nature of gains from trade, balance of payments, exchange rate determination, equilibrating mechanisms for restoring balance of payments stability and international commercial policy.</td>
</tr>
<tr>
<td>ECO 2023</td>
<td>INTRODUCTION TO MATHEMATICAL ECONOMICS</td>
<td>(3)</td>
<td>Examination of basic influences affecting labor force, real wages, and employment; collective bargaining and labor law.</td>
</tr>
<tr>
<td>ECO 2023</td>
<td>PUBLIC FINANCE</td>
<td>(3)</td>
<td>Analysis of the phenomena of cities as well as urban social problems including poverty, discrimination, housing, transportation, pollution, crime and fiscal considerations.</td>
</tr>
<tr>
<td>ECO 2023</td>
<td>INTERNATIONAL MONETARY RELATIONS</td>
<td>(3)</td>
<td>Examination of international macroeconomic relationships. Foreign exchange market, international monetary system balance of payments and balance of payments adjustment. Macroeconomic policy in an open economy. International transmission of economic disturbances.</td>
</tr>
<tr>
<td>ECO 2023</td>
<td>INTERNATIONAL COMMERCIAL POLICIES</td>
<td>(3)</td>
<td>Advanced analysis of international trade theory and commercial policy, international economic integration, and multinational enterprise.</td>
</tr>
<tr>
<td>ECO 2023</td>
<td>INDEPENDENT STUDY</td>
<td>(1-3)</td>
<td>Specialized independent study determined by the student's needs and interests. May be repeated up to 6 credit hours. (S/U only.)</td>
</tr>
<tr>
<td>ECO 2023</td>
<td>INDEPENDENT RESEARCH</td>
<td>(1-3)</td>
<td>Individual study contract with instructor and department chairperson required. The research project will be mutually determined by the student and instructor. May be repeated up to 6 hours.</td>
</tr>
<tr>
<td>ECO 4905</td>
<td>ECONOMIC PROGRAMMING AND CONTROL</td>
<td>(3)</td>
<td>Theory and use of multiple regression to estimate relationships in causal models, to analyze economic behavior and to forecast the outcome of economic disturbances. Use of standard software packages. Estimation and interpretation of regression equations.</td>
</tr>
<tr>
<td>ECO 3203</td>
<td>LABOR ECONOMICS</td>
<td>(3)</td>
<td>History of the trade union movement; economic analysis of trade union philosophies and practices; examination of basic influences affecting labor force, real wages, and employment; collective bargaining and labor law.</td>
</tr>
<tr>
<td>ECP 3003</td>
<td>BUSINESS-GOVERNMENT RELATIONSHIPS</td>
<td>(3)</td>
<td>Analysis of the three public policy approaches: competitive, regulatory, and ownership; in terms of ability to bring about economically desirable price-cost relationships, reductions in cost, invention and innovation and an optimal allocation of resources.</td>
</tr>
<tr>
<td>ECP 3003</td>
<td>INDUSTRIAL RELATIONSHIPS</td>
<td>(3)</td>
<td>Functions of transporting agencies, rate structure of transportation companies, problems of state and federal regulations and coordination of transportation facilities.</td>
</tr>
<tr>
<td>ECP 3003</td>
<td>ECONOMICS OF THE URBAN ENVIRONMENT</td>
<td>(3)</td>
<td>Economic analysis of the phenomena of cities as well as urban social problems including poverty, discrimination, housing, transportation, pollution, crime and fiscal considerations.</td>
</tr>
<tr>
<td>ECP 3003</td>
<td>COLLECTIVE BARGAINING AND PUBLIC POLICY</td>
<td>(3)</td>
<td>Impact of the government role in collective bargaining and labor relations will be examined in light of current labor laws and judicial interpretations.</td>
</tr>
<tr>
<td>ECP 3003</td>
<td>INDUSTRIAL ORGANIZATION</td>
<td>(3)</td>
<td>The study of the behavior of firms and the implications of such behavior on economic performance. The relationship between structure of industry and performance.</td>
</tr>
<tr>
<td>ECP 3003</td>
<td>SEMINAR IN INDUSTRIAL ORGANIZATION</td>
<td>(3)</td>
<td>Contemporary industrial organization problems will be discussed in a seminar format.</td>
</tr>
<tr>
<td>ECP 3003</td>
<td>URBAN ECONOMICS</td>
<td>(3)</td>
<td>The economics of urban areas including analysis of their growth and development as well as intra-urban locational patterns. Advanced economic analysis of urban problems.</td>
</tr>
<tr>
<td>ECP 3003</td>
<td>REGIONAL ECONOMICS</td>
<td>(3)</td>
<td>The economics of geographic allocation of scarce resources within and among regions. Topics discussed are: location of households and firms, interregional migration of labor and capital, regional growth and development, methods of regional analysis, and regional policy.</td>
</tr>
<tr>
<td>ECP 3003</td>
<td>ECONOMIC DEVELOPMENT</td>
<td>(3)</td>
<td>Problems, policies, and dynamics of economic development in emerging nations. Benefits and relevance of theories</td>
</tr>
</tbody>
</table>
of economic development are examined within the context of the social and political milieu of today's underdeveloped areas.

ECS 4003 COMPARATIVE ECONOMIC SYSTEMS (3) PR: ECO 2013 or CL. Analysis of the major types of economic systems: traditional, capitalism, democratic socialism, communism and fascism. The methodology of Max Weber will be stressed.

GEB 2111 BUSINESS AND ECONOMIC STATISTICS I - 6A (3) PR: MAC 2233. Description of sample data; calculation of probabilities, frequency functions of random variables; the binomial and normal distributions; sampling theory and estimation; test of hypotheses; elements of Bayesian decision theory.

GEB 3121 BUSINESS AND ECONOMIC STATISTICS II PR: MAC 2233, GEB 2111. Theory and use of statistical inference. Point and interval estimation; criteria for choosing estimators and decision rules; hypotheses tests; analysis of variance, correlation and regression.


FIN 2100 PERSONAL FINANCE (3) Survey of the problems and techniques of personal financial planning. Includes consumer credit, insurance, home ownership, and personal investing, with attention given to current economic and legal constraints. Not available for credit to upper level students who have been admitted to the College of Business Administration.

FIN 2105 INTRODUCTION TO INVESTMENTS (3) Emphasizes the operations of the security markets in the U.S. and the risks and returns of alternative investment media. Designed for non-business administration students. Not available for credit to upper level students who have been admitted to the College of Business Administration.

FIN 3233 MONEY AND BANKING PR: ECO 2013. Examines the structure and operations of our monetary system, commercial banking, central banking, money, and capital markets, and provides an introduction to monetary theory and policy.

FIN 3403 PRINCIPLES OF FINANCE PR: ACG 2111 and ECO 2023. Study of the processes, decisions structures, and institutional arrangements concerned with the use and acquisition of funds by a firm. Includes the management of the asset and liability structure of the firm under uncertain and risky situations. The financial decision process will include and recognize the international as well as domestic aspects of financial management.

FIN 3604 INTERNATIONAL FINANCE PR: ECO 2013 or CL. Study of factors affecting international business, assessment of risks, international managerial finance, institutions and instruments of international business finance.

FIN 4303 FINANCIAL INSTITUTIONS PR: FIN 3233. A study of financial institutions and their roles in the capital market includes the savings allocation, investment, and financial decision making processes.

FIN 4414 ADVANCED CORPORATION FINANCE PR: FIN 3403. An examination of the financial policies of corporations, with special reference to dividend policy, financial structure, capital expenditures, acquisitions, mergers, and reorganization.

FIN 4443 FINANCIAL POLICIES AND STRATEGIES PR: FIN 4414. A senior case course for majors in Finance. Primarily a case course examining financial policies and the application of financial analysis to alternative strategies.

FIN 4504 PRINCIPLES OF INVESTMENTS PR: ECO 2013 and FIN 3403. Survey of the risks and returns of investment media in relation to the investment objectives of individual and institutional investors. Includes an examination of the capital markets, information flows, and analytical techniques in terms of their impact upon the valuation process.

FIN 4524 ADVANCED INVESTMENT ANALYSIS AND MANAGEMENT PR: FIN 4504. A comprehensive survey of security analysis and portfolio management. The course will utilize a quantitative approach to investment selection and management.

FIN 4834 FEDERAL RESERVE SYSTEM AND MONETARY POLICY PR: FIN 3233 or CL. An analysis of the Federal Reserve System, with special emphasis on monetary theory and the formulation and administration of monetary policy.

FIN 4905 INDEPENDENT STUDY PR: CL. Specialized independent study determined by the students' needs and interests. May be repeated up to six credit hours. (S/U only.)

FIN 4915 INDEPENDENT RESEARCH PR: CL. Individual study contract with instructor and department chairperson. The research project will be mutually determined by the student and instructor. May be repeated up to 6 hours.

FIN 4934 SELECTED TOPICS IN FINANCE PR: CL. Topics to be selected by instructor and department chairperson on pertinent Finance issues.

REE 3040 PRINCIPLES OF REAL ESTATE Economics of urban land utilization and the nature of property rights. Problems of urban development and the valuation of real property in terms of the structure and operations of the real estate market.

REE 4100 REAL ESTATE APPRAISAL PR: REE 3040. Comprehensive coverage of the basic concepts and principles of real estate appraisal. Emphasis placed on the use of valuation tools for the appraisal of real estate with emphasis on residential property.

REE 4204 REAL ESTATE FINANCE PR: REE 3040. A comprehensive analysis of the institutional and legal framework of real estate financing together with an introduction to the financing techniques which are traditionally utilized to finance real estate. Includes methods of raising debt and equity funds. Analysis of real property for financing purposes is stressed in a decision-making context and how that decision affects the real estate investment.

REE 4310 REAL ESTATE INVESTMENT ANALYSIS PR: FIN 3403, REE 3040. A comprehensive study of the determinants of the market and financial feasibility of the real estate investment decision. The development of market and site analyses, theories or urban development patterns, and the role of taxation will be studied along with the application of analytical techniques for decision making. The course is not restricted to Finance majors.

RMI 3010 PRINCIPLES OF INSURANCE Analysis of insurable risks of both business and individuals. An examination of the characteristics of those areas of risk and uncertainty where the mechanisms of insurance are effective alternatives. The concept, contracts, and institutions involved in insurance are examined in relationship to the socio-economic environment.

RMI 4110 LIFE, HEALTH, AND DISABILITY INSURANCE PR: GEB 3211, RMI 3010. The course will analyze the use of life, health, and disability insurance contracts as a method of dealing with the risks of death, sickness, and disability. It will also include the analysis of cost determination of the various types of coverage.

RMI 4113 CASUALTY INSURANCE PR: RMI 3010. Course dealing with recognition of personal and business casualty risks and coverages which may be used in dealing with these risks. Considers the underwriting, marketing, and social problems associated with these coverages. Topics include workers' compensation, public liability, auto liability, suretyship and crime insurances. Not limited to Finance majors.
RMI 4210 PROPERTY INSURANCE (3)
PR: RMI 3010. Course dealing with recognition of personal and business property risks, and coverages which may be used in dealing with these risks. Considers the underwriting, marketing, and social problems associated with these coverages. Topics include commercial and residential fire insurance, inland marine and transportation coverages, and multiperil contracts. Not limited to Finance majors.

GENERAL BUSINESS ADMINISTRATION

BUL 2111 LAW AND THE INDIVIDUAL (3)
A study of the nature, functions, sources, formulation, and administration of law with the special emphasis on the practical aspects of criminal, tort, estate, divorce, property, business, constitutional, and other areas of law. Not available for credit to students who have been admitted to the College of Business. (No credit for students with credit in BUL 3112.)

BUL 3112 BUSINESS LAW I (3)
The nature of legal institutions, essentials of binding contract, remedies granted in event of breach of contract, and rights acquired by assignment of contracts.

BUL 3122 BUSINESS LAW II (3)
PR: BUL 3112. Legal problems in marketing of goods, nature of property, sales of personal property, securing of credit granted, nature and use of negotiable instruments.

BUL 3659 THE LAW OF BUSINESS ASSOCIATIONS (3)
PR: BUL 3112 or Cl. A study of the law of corporations, the law of partnerships, and the law of agency.

BUL 5665 LAW AND THE ACCOUNTANT (3)
PR: BUL 3112 or Cl. A comprehensive study of commercial law as it affects the practice of accounting.

GEB 3211 BUSINESS COMMUNICATIONS -6A (3)
Analysis and application of the principles of organizational behavior in letters, memorandums, and reports. Course is structured around a model which manifests the effective communications process.

GEB 4511 BUSINESS POLICY (3)
PR: Senior standing. The course is intended to provide a unifying, integrating, and coordinating opportunity to tie together concepts, principles, and skills learned separately in other, more specialized courses in Business Administration.

GEB 4901 INDEPENDENT STUDY (1-3)
PR: Cl. Specialized independent study determined by the student’s needs and interests. May be repeated up to eight credit hours. (S/U only.)

GEB 4911 INDEPENDENT RESEARCH (1-4)
PR: Cl. Individual study contract with instructor and department chairperson required. The research project will be mutually determined by the student and instructor. May be repeated up to 8 hours.

GEB 4935 SELECTED TOPICS IN BUSINESS ADMINISTRATION (1-4)
The content and organization of this course will vary according to the current interests of the faculty and needs of students.

MAN 5925 CBA WORKSHOP (1-4)
Professional application workshop in various areas of finance, marketing, economics, accounting, management. May be repeated when subjects differ.

INFORMATION SYSTEMS AND DECISION SCIENCES


COC 2201 COMPUTERS IN BUSINESS -6A (3)
A study of the use and impact of computers in all areas of business organizations. Course includes hands-on experience and the use of software packages for business analysis.

GEB 2111 BUSINESS AND ECONOMIC STATISTICS I (3)
PR: MAC 2233. Description of sample data; calculation of probabilities, frequency functions of random variables, the binomial and normal distributions; sampling theory and estimation; test of hypotheses; elements of Bayesian decision theory.

GEB 3121 BUSINESS AND ECONOMIC STATISTICS II (3)
PR: MAC 2233, GEB 2111. Theory and use of statistical inference. Point and interval estimations; criteria for choosing estimators and decision rules; hypotheses tests; analysis of variance, correlation and regression.

ISM 3011 (formerly MNA 3300) MANAGEMENT INFORMATION SYSTEMS (3)
PR: COC 2201; ACG 2201; ACG 2011 or equivalent. The study of information management, management information requirements and information systems in modern organizations.

ISM 3111 (formerly MNA 3300) SYSTEMS ANALYSIS (3)
PR: COP 3120. Overview of the system development life cycle. Emphasis on current system documentation through the use of both classical and structured tools/techniques for describing process flows, data flows, data structures, and file designs. Discussion of the information gathering and reporting activities and of the transition from analysis to design.

ISM 3112 SYSTEMS DESIGN (3)
PR: ISM 3111. Advanced study of structured systems design. Emphasis on strategies and techniques of structured analysis and structured design for producing logical methodologies for dealing with complexity in the development of information systems.

ISM 3431 (formerly MNA 3810) MANAGEMENT SCIENCE PRODUCTION/OPERATIONS MANAGEMENT APPLICATIONS (3)
PR: MAC 2243. Fundamentals of production operations management (POM) and fundamentals of management science (MS). The application of MS models in the solution of POM problems.

ISM 4300 (formerly MNA 4301) MANAGING THE INFORMATION SYSTEM FUNCTION (3)
PR: ISM 3111, MAN 3025, or equivalent. An advanced study of information system management including system planning, project selection and management, and organizational information management policies.

ISM 4320 (formerly MNA 4302) INFORMATION SYSTEMS CONTROLS (3)
PR: ISM 3111 or equivalent. MIS Major or Cl. A study of information systems control and its application in system design and system management.

ISM 4212 (formerly MNA 4325) DATABASE ADMINISTRATION (3)

ISM 4230 (formerly MNA 4327) DISTRIBUTED INFORMATION SYSTEMS (3)
PR: ISM 3111, ISM 3112. Analysis, design, implementation and management of distributed information systems and networks.

ISM 4290 (formerly MNA 4935) SENIOR SEMINAR IN INFORMATION SYSTEMS (3)
PR: ISM 3111, ISM 3112, ISM 4300. A seminar covering advanced topics in system analysis and design. Applications of these procedures to actual or hypothetical cases.

ISM 4400 (formerly MNA 4351) DECISION SUPPORT SYSTEM APPLICATIONS-COMPUTER ASSISTED DECISION MAKING (3)
PR: FIN 3403, GEB 3121. Study of the principles of decision making of the human/computer alliance. Hands-on computer-assisted decision making for an organizational environment. Case studies and/or management games using micro-computers.
MANAGEMENT


MANAGEMENT

MAN 4504 (formerly MNA 4504) OPERATIONS MANAGEMENT A SYSTEMS APPROACH (3)
PR: ISM 3431 or equivalent. Deals with problems of "operations" in all kinds of enterprises in both the public and private sectors. Emphasis is placed on the application of various decision science methodologies to problem situations.

MAN 4507 (formerly MNA 4521) OPERATION-PRODUCTION SYSTEMS (3)
PR: MAN 4504 or CI. Study of closed loop production planning and control systems. Master production planning, inventory management, materials requirements planning, capacity, management, production activity. Relationship to organizational effectiveness.

ISM 4905 (formerly MNA 4905) INDEPENDENT STUDY
INDEPENDENT STUDY as directed by designated faculty. May be repeated up to 6 credit hours. (S/U only)

ISM 4930 (formerly MNA 4930) SELECTED TOPICS IN MIS
Selected topics in MIS.

ISM 4950 (formerly MNA 4950) INDEPENDENT RESEARCH
INDEPENDENT RESEARCH as directed by designated faculty. May be repeated up to 8 credit hours. (S/U only)

QMB 4600 QUANTITATIVE APPROACH FOR BUSINESS DECISIONS (3)
PR: ISM 3431. The use of systematic approaches and management science tools for decision making and problem solving is an organizational setting. Emphasis is on quantitative approaches for problem identification, analysis, choice and implementation.

QMB 4703 SIMULATION AND MODELING TECHNIQUES (3)
PR: ISM 3431 or CI. A study of manual and computer simulation techniques and their application to problem solving in management (behavioral and quantitative). Knowledge of a computer language and the basic tools and techniques of management science is advised.

MANAGEMENT

MAN 2932 SELECTED TOPICS IN MANAGEMENT
SELECTED TOPICS IN MANAGEMENT (1-4)
PR: CI. Topics to be selected by department chairman. May be repeated if topics vary. Not available for credit to upper-level students who have been admitted to the College of Business Administration. May be repeated up to 8 credit hours.

MAN 3025 PRINCIPLES OF MANAGEMENT
PRINCIPLES OF MANAGEMENT (3)
Study of the fundamentals of management. It treats topics in organizational theory, organizational behavior, and interpersonal relations which are relevant to effective management performance.

MAN 3150 ORGANIZATIONAL BEHAVIOR ANALYSIS
ORGANIZATIONAL BEHAVIOR ANALYSIS (3)
PR: MAN 3025. The course covers research literature relevant to organizational functioning including behavioral effects of power and authority, formal organization, structural variation, leadership, motivation, and communication.

MAN 3301 PERSONNEL MANAGEMENT
PERSONNEL MANAGEMENT (3)
To develop a broad exposure to new approaches, techniques, and future trends in the management of personnel. A study of the major functions in personnel including job analysis, manpower planning, selection, performance evaluation, training, and wage and salary administration.

MAN 3401 INDUSTRIAL RELATIONS
INDUSTRIAL RELATIONS (3)
A conceptualization of the administrative problems arising from unionization. Emphasis on the relationship between management and employee representatives in private and public employment.

MAN 4120 MANAGERIAL BEHAVIORAL LABORATORY
MANAGERIAL BEHAVIORAL LABORATORY (3)
PR: MAN 3150 or equivalent. Development of direct understanding of personal, interpersonal, and intergroup factors present in organizational interaction. Stress is on a series of experiential exercises and written application of results within a laboratory setting.

MAN 4201 ORGANIZATIONAL ASSESSMENT
ORGANIZATIONAL ASSESSMENT (3)
PR: MAN 3150. The analysis and measurement of factors which influence organizational effectiveness and the quality of work life. Data based cases will be used by students to assess managerial and supervisory skills and to measure organizational functioning and work design.

MAN 4210 ORGANIZATIONAL DEVELOPMENT AND CHANGE
ORGANIZATIONAL DEVELOPMENT AND CHANGE (3)
PR: MAN 3150 or CI. This course should be taken simultaneously with or after MAN 4201. A lab course where students experimentally apply behavioral science techniques in an "action-research" framework to the cycle of planned change so as to build a more effective organization.

MAN 4400 THEORY AND PRACTICE OF MANAGEMENT SKILLS
THEORY AND PRACTICE OF MANAGEMENT SKILLS (3)
PR: MAN 3150. This course involves the transference of management theories into practice. It requires the active involvement of students in developing and practicing the skills needed to be a successful manager.

MAN 4410 EMPLOYMENT LAWS
EMPLOYMENT LAWS (3)
Federal and state regulation of the employment relationship, including wage and hour laws; EEO; affirmative action programs; employee benefits; insurance; workers' compensation, safety, health, employee's personal rights; collective bargaining legislation.

MAN 4430 SEMINAR IN NEGOTIATIONS AND ADMINISTRATION OF LABOR AGREEMENTS
SEMINAR IN NEGOTIATIONS AND ADMINISTRATION OF LABOR AGREEMENTS (3)
Case studies in contract negotiation, administration, grievance settlement, and arbitration. Assumes familiarity with industrial relations system.

MAN 4802 ENTREPRENEURSHIP AND SMALL BUSINESS MANAGEMENT
ENTREPRENEURSHIP AND SMALL BUSINESS MANAGEMENT (3)
PR: ACC 2001, ACC 2021, MAR 3023, or CI. Study of the factors involved in starting and managing a small- to medium-sized business. Emphasis on conduct of pre-business feasibility study, start-up of business, successful management of the firm, and options for succession or termination.

MAN 4804 SMALL BUSINESS MANAGEMENT COUNSELING
COUNSELING (3)
PR: MAN 4802 or CI. Field application in small business settings by (a) analyzing an on-going small business and developing recommendations for making improvements; or (b) conducting a feasibility study for a new enterprise and developing a strategy for implementation if favorable.

MAN 4905 INDEPENDENT STUDY
INDEPENDENT STUDY (1-3)
PR: CI. Specialized independent study determined by the students needs and interests. May be repeated up to 8 credit hours. (S/U only)

MAN 4930 SELECTED TOPICS IN MANAGEMENT
SELECTED TOPICS IN MANAGEMENT (1-3)
PR: CI. Topics to be selected by instructor and department chairperson for pertinent Management issues.

MAN 4931 INDEPENDENT RESEARCH
INDEPENDENT RESEARCH (1-4)
PR: CI. Individual study contract with instructor and department chairperson required. The research project will be mutually determined by the student and instructor. May be repeated up to 8 hours.

MAN 5714 URBAN MANAGEMENT
URBAN MANAGEMENT (3)
The applicability of business management theories and practices to problem solving in the public sector. A formal theory of organization is used to compare and contrast private and public sector decision environments.
MARKETING


MAR 2931 SELECTED TOPICS IN MARKETING (1-4)
PR: CI. Topics to be selected by department chairman. May be repeated if topics vary. Not available for credit to upper-level students who have been admitted to the College of Business Administration. May be repeated up to 8 credit hours.

MAR 3023 BASIC MARKETING (3)
PR: ACO 2001, ECO 2013, ECO 2023, or CI. Survey of the marketing of goods and services within the economy. The integration of functional, commodity, and institutional approaches from the consumer and managerial viewpoints.

MAR 3613 MARKETING RESEARCH (3)
PR: GEB 3121, MAR 3023. A study of research methods and techniques applicable to problem solving in marketing. Attention is also given to defining information needs, determining the value of information, interpreting and reporting information for use in marketing decision making.

MAR 3722 MARKETING MANAGEMENT (3)
PR: MAR 3023. An applications oriented study of the marketing function at an intermediate level. Emphasis upon techniques for analysis and problem-solving. This course builds upon the principles and concepts learned in MAR 3023, and provides a strong foundation for the remaining courses in the marketing curriculum.

MAR 4153 RETAILING MANAGEMENT (3)
PR: MAR 3023. A comprehensive study of the retailing structure, institutions, and environment. Includes pertinent management theories and practices in analyzing, organizing, planning and controlling retail operations, both large and small.

MAR 4203 CHANNELS MANAGEMENT (3)
PR: MAR 3722. A detailed study of marketing channels as a functional area of marketing management responsibility and as a part of marketing strategy. Attention is given to wholesaling and retailing and their structural, dynamic interrelationships including distribution logistics.

MAR 4213 LOGISTICS AND PHYSICAL DISTRIBUTION MANAGEMENT (3)
PR: MAR 3722, MAR 3613, GEB 3121, or CI. A study of logistics in the marketing of goods and services. Includes a description and analysis of the logistics environment as well as components of the physical distribution system with emphasis on information flows and the application of quantitative techniques used in establishing and controlling customer service levels.

MAR 4243 INTERNATIONAL MARKETING (3)
PR: MAR 3722. A study of the procedures and problems associated with establishing marketing operations in foreign countries. Includes the institutions, principles and methods involved in the solution of these business problems as well as the effects of national differences on business practices and buyer behavior.

MAR 4343 PROMOTION MANAGEMENT (3)
PR: MAR 3722 or CI. A study of the role of promotion in the marketing program of the firm, including the promotional tools available to the marketing manager and the various types of decisions made in the promotional area. The decision making process in development of a promotional program is emphasized.

MAR 4403 SALES MANAGEMENT (3)
PR: MAR 3722 or CI. A study of sales management and strategy as a subset of marketing management. Emphasis is placed on developing the problem-solving and decision-making skills required of the sales manager in the modern market-oriented company.

MAR 4453 INDUSTRIAL MARKETING (3)
PR: MAR 3722. A study of the marketing of goods and services to the industrial and institutional sectors. Includes characteristics of the markets and channels of distribution, sales, marketing, research and promotional research and marketing policies and strategies.

MAR 4503 BUYER BEHAVIOR (3)
PR: MAR 3613, MAR 3722. A study of the basic concepts and research procedures utilized in investigating pre- and post-purchase buyer behavioral patterns, with emphasis on the impact of various behavioral factors on a buyer's decision-making process. Includes managerial applications in a variety of marketing situations.

MAR 4713 MARKETING MANAGEMENT PROBLEMS (3)
PR: MAR 3722, MAR 3613 and two other 4000 level marketing courses or CI. The integration of marketing knowledge applied to decision roles in managing the total marketing effort of firms, and coordination with other major functional areas on specific problems.

MAR 4903 INDEPENDENT RESEARCH (1-3)
PR: CI. Individual study contract with instructor and department chairperson required. The research project will be mutually determined by the student and instructor. May be repeated up to 6 credit hours.

MAR 4905 INDEPENDENT STUDY (1-3)
PR: CI. Specialized independent study determined by the students' needs and interests. May be repeated up to 6 credit hours. (S/U only)

MAR 4933 SELECTED TOPICS IN MARKETING (1-3)
PR: CI. Topics to be selected by instructor and department chairperson.
COLLEGE OF EDUCATION

ADULT AND VOCATIONAL EDUCATION

CHILDHOOD/LANGUAGE ARTS/READIGN EDUCATION

CURRICULUM AND INSTRUCTION

COUNSELOR EDUCATION
Chairperson: V. J. Drapela; Professors: W. K. Burt, V. J. Drapela, D. G. Ferguson, E. E. Panther; Associate Professor: C. M. Story.

EDUCATIONAL LEADERSHIP

EDUCATIONAL MEASUREMENT AND RESEARCH

MUSIC EDUCATION
Chairperson: J. Heller; Professors: V. A. Bridges, J. Heller, V. Jennings; Assistant Professors: C. Doane, S. Hodge.

PHYSICAL EDUCATION

COLLEGE OF EDUCATION

PSYCHOLOGICAL AND SOCIAL FOUNDATIONS

SCHOOL OF LIBRARY INFORMATION SCIENCE
Director: J. A. McCroskan; Professors: J. K. Gates, J. A. McCroskan, F. C. Pfister, A. G. Smith; Associate Professors: G. R. Barkholz, J. M. Kegno, H. Smith, R. Wagers, T. C. Wilson; Assistant Professors: L. G. Christian; Courtesy Associate Professor: Y. L. Ralston.

SPECIAL EDUCATION

ADULT EDUCATION

ADE 4360 METHODS OF TEACHING: ADULT EDUCATION
Methods, techniques, and materials for instruction. (3)

ADE 4361 SPECIAL TEACHING METHODS: ADULT EDUCATION
Methods, techniques, and materials for skill development. (4)

ADE 4945 SUPERVISED FIELD EXPERIENCE: ADULT EDUCATION
Pr. CI. Planned supervised functions in the area of specialization and coordinated with selected schools, government, offices, social agencies, businesses and industries on site. (1-6)

ADE 5160 PROGRAM MANAGEMENT: ADULT EDUCATION
This course examines the establishment of organizational climate and structure, assessing needs and interest, designing, operating and evaluating comprehensive adult programs. (4)

ADE 5161 CURRICULUM CONSTRUCTION: ADULT EDUCATION
Curriculum scope, the process of planning and organizing instructional programs with emphasis on task analysis and process evaluation. (4)

ADE 5385 THE ADULT LEARNER
The physiological and psychological changes in the adult life span and the implications which these changes have for adult learning capabilities. Significant research in adult learning is identified and analyzed. (4)

PET 5387 EXERCISE STRESS TESTING AND ELECTROCARDIOGRAPHY
Pr. CI. Linked with PET 5387L. Theoretical and laboratory concepts of cardiac response to exercise testing of healthy and cardio/pulmonary individuals. Includes exercise electrocardiography testing techniques and administration. (3)

161
EDG 3044 ARTISTIC MIND (3)
PR: Admission to College of Education. Designed to help the individual student discover and develop meanings and values in art and education with emphasis on communicative skills, both verbal and visual. Focus will be on the individual and potential alternatives in the teaching of art.

ARE 3354 ART TEACHING STRATEGIES I (3)
PR: Admission to College of Education and ARE 3044. A combination of theory, philosophy and practice in both public and private learning centers to provide the student with a variety of teaching concepts and media exploration in art education and to further enable the student to understand stages of young people, three to eighteen.

ARE 4112 EDUCATION THROUGH CRAFTS (3)
An in-depth study of arts and craft media for children. Emphasis will be placed on innovative use of new materials.

ARE 4200 ART SEMINAR IN ART EDUCATION CLASSROOM MANAGEMENT (1)
PR: Admission to College of Education and ARE 3044. The concepts and areas of skill essential to successful practice in art education management. To include understanding of how art programs are funded, art facility planning, art curriculum development, art exhibition techniques, public relations promotion and supply and equipment requirements.

ARE 4440 ART TEACHING STRATEGIES II (3)
Media and the learning process will be explored through photographic arts, cinematography and video systems. Teaching strategies and media criticism for application at elementary and secondary levels.

ARE 4443 CRAFTS WORKSHOP IN ART EDUCATION (3)
PR: Admission to College of Education and ARE 3044. The study of processes and media involved in the expression of individual ideas through crafts. Emphasis placed on crafts in a contemporary society with skills in metals, weaving, fibers, and ceramics and their application in a public school curriculum.

ARE 4462 URBAN ENVIRONMENT ARTS WORKSHOP (3)
PR: Admission to College of Education and ARE 3044. Identification, exploration, and experimentation with unique urban spaces and populations as potential new environments for teaching and learning in arts.

ARE 4905 INDEPENDENT STUDY: ART EDUCATION (1-4)
PR: Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only)

ARE 4909 DIRECTED STUDY: ART EDUCATION (1-3)
PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

ARE 4936 SENIOR SEMINAR IN ART EDUCATION (2)

ARE 4940 INTERNSHIP: ART EDUCATION (1-12)
One full semester of internship in a public or private school. Intern takes Senior Seminar in Education concurrently. In special programs where the intern experience is distributed over two or more semesters, students will be registered for credit which accumulates from 9 to 12 semester hours. (S/U only)

EDG 4320 INTRODUCTION TO CREATIVE DRAMA (3)
A study of the dramatic process as intrinsic in human development, this course is designed to enrich the education of pre-service teachers by providing training in the use of creative drama and related forms of improvised drama in the classroom.

THE 4722 (formerly EDG 4452) THEATRE FOR PRE-SECONDARY SCHOOLS: THE PRODUCTION PROCESS (3)
The play production process as it applies to theatre artist-in-schools programs, including development of related classroom workshops and preparation of study guides and educational program materials as well as design, direction and rehearsal of play and touring methods. May be repeated for elective credit two times; once for major credit.

THE 4723 (formerly EDG 4453) THEATRE FOR PRE-SECONDARY SCHOOLS: THE PERFORMANCE PROCESS (3)
The artistic process of performing for various school audiences and practice conducting classroom workshops following each performance. May be repeated for elective credit two times; once for major credit.

THE 4761 (formerly EDG 4454) METHODS OF TEACHING THEATRE FOR ADOLESCENTS (3)
Methods of effective drama and theatre instruction in middle school, junior and senior high schools, recreation centers, community and professional theatres.

BUSINESS AND OFFICE EDUCATION

BTE 4360 METHODS OF TEACHING: BUSINESS EDUCATION (4)
PR: Introduction to Computers I or equivalent. Satisfactory competencies in Office Administration Courses, or Cl. Methods, techniques and materials for instruction.

BTE 4364 SPECIAL TEACHING METHODS: BUSINESS EDUCATION (4)
Speech Improvement and Phonetics, satisfactory competencies in Office Administrative Courses, or Cl. Methods, techniques, and materials for skill development.

BTE 4905 INDEPENDENT STUDY: BUSINESS EDUCATION (1-4)
PR: CL. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only)

BTE 4909 DIRECTED STUDY: BUSINESS EDUCATION (1-3)
PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

BTE 4936 SENIOR SEMINAR IN BUSINESS AND OFFICE EDUCATION (2)

BTE 4940 INTERNSHIP: BUSINESS EDUCATION (1-12)
One full semester of internship in a public or private school. Intern takes Senior Seminar in Business Education concurrently. In special programs where the intern experience is distributed over two or more semesters, students will be registered for credit which accumulates from 9 to 12 semester hours. (S/U only)

BTE 4945 SUPERVISED FIELD EXPERIENCE: BUSINESS EDUCATION (1-6)
PR: CL. Planned supervised functions in the area of specialization and coordinated with selected schools, government, offices, social agencies, businesses and industries on site. (S/U only)

BTE 4948 FIELD-BASED SEMINAR IN BUSINESS EDUCATION (3)
Supervised field experience and orientation to broad field business education. Specifically designed to be preparatory for the internship. (S/U only)

BTE 5171 CURRICULUM CONSTRUCTION: BUSINESS EDUCATION (3)
Curriculum scope, the process of planning and organizing instructional programs with emphasis in task analysis and process evaluation.

BTE 5245 PROGRAM MANAGEMENT: BUSINESS EDUCATION (3)
Organization, coordination, and budgeting of adult, cooperative, and special programs.
EME 5403 MICROCOMPUTERS IN EDUCATION (3)
PR: CAP 4100 or Cl. Application of computers in education, selection and evaluation of software and hardware, types of CAI, networking, computing resources. Advanced BASIC programming, including random and sequential files, sort routines, advanced graphics.

COUNSELOR EDUCATION

EGC 4001 INTRODUCTION TO GUIDANCE PROCESSES (3)
PR: Upper level standing. An introduction to the role and function of guidance, school psychology, social work and other pupil personnel services. Opportunities for increasing self awareness.

EGC 4053 INTRODUCTION TO STUDENT PERSONNEL WORK IN HIGHER EDUCATION (3)
PR: CI. Study of student personnel services in institutions of higher education. Identification of the needs of students and of the ways to respond to meet these needs. Survey of service units on a campus in terms of structure, organization, funding, etc.

EGC 4905 INDEPENDENT STUDY: GUIDANCE AND COUNSELING EDUCATION (1-4)
PR: CI. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only.)

EGC 5101 HUMAN RELATIONS SKILLS IN GUIDANCE (4)
Introduction to the theory of human relations dynamics and development of skills required for effective interpersonal relations. Lecture sessions and laboratory training.

SLS 1101 THE UNIVERSITY EXPERIENCE (2)
An extended introduction and orientation to USF. Topics include purposes of higher education, structure and function of USF, overviews of the processes of career planning and selecting a major, study skills, and managing out-of-class time.

SLS 2401 CAREER DEVELOPMENT PROCESS (2)
Students will study vocational choice theories and participate in career decision processes. Development of self-awareness and knowledge of career opportunities and requirements necessary for decision making. Available to lower level majors or non-majors.

CURRICULUM AND INSTRUCTION

EDG 1300 INTRODUCTION TO TEACHING (3)
May be repeated for a total of 3 semester hours.

EDG 4620 CURRICULUM AND INSTRUCTION (3)
An introduction to the field of curriculum and instruction. Emphasis is placed on identifying educational goals and objectives and applying instructional principles.

EDG 4901 DIRECTED READINGS (1-3)
May be repeated for a total of 3 semester hours.

EDG 4905 INDEPENDENT STUDY (1-4)
PR: CI. Specialized independent study determined by the students' needs and interests. May be repeated when subjects vary. (S/U only.)

EDG 4909 DIRECTED STUDY (1-3)
PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

EDG 4910 INDIVIDUAL RESEARCH (1-3)
PR: Senior standing and consent of program coordinator.

EDG 4936 SENIOR SEMINAR IN EDUCATION (2)

EDG 4940 INTERNSHIP (1-12)
One full semester of internship in a public or private school. Intern takes Senior Seminar in Education concurrently. In special programs where the internship experience is distributed over two or more semesters, students will be registered for credit which accumulates from 9 to 12 semester hours. (S/U only.)

EDG 5626 CURRICULUM AND INSTRUCTION (3)
A study of a systematic approach to making curriculum and instruction decision in the classroom.
DISTRIBUTIVE AND MARKETING EDUCATION

DEC 4174 PROGRAM MANAGEMENT OF DISTRIBUTIVE AND MARKETING EDUCATION (3)
The study of the purposes, processes, organization, planning, directing, coordinating and evaluation of Distributive and Marketing Education Co-operative Programs.

DEC 4362 SPECIAL TEACHING METHODS: DISTRIBUTIVE EDUCATION (4)
Methods, techniques, and materials for skill development.

DEC 4382 METHODS OF TEACHING: DISTRIBUTIVE EDUCATION (3)
Methods, techniques, and materials for instruction.

DEC 4905 INDEPENDENT STUDY: DISTRIBUTIVE AND MARKETING EDUCATION (1-4)
Pr: CI. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only)

DEC 4909 DIRECTED STUDY: DISTRIBUTIVE AND MARKETING EDUCATION (1-3)
Pr: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

DEC 4936 SENIOR SEMINAR IN DISTRIBUTIVE AND MARKETING EDUCATION (2)

DEC 4940 INTERNSHIP: DISTRIBUTIVE AND MARKETING EDUCATION (1-12)
One full semester of internship in a public or private school. Intern takes Senior Seminar in Distributive and Marketing Education concurrently. In special programs where the internship is distributed over two or more semesters students will be registered for credit which accumulates from 9 to 12 semester hours. (S/U only)

DEC 4941 SUPERVISED FIELD EXPERIENCE: DISTRIBUTIVE EDUCATION (1-6)
Pr: CI. Planned supervised functions in the area of specialization and coordinated with selected schools, government offices, social agencies, businesses and industries on site.

DEC 5175 PROGRAM MANAGEMENT DISTRIBUTIVE EDUCATION (3)
Organization, coordination, and budgeting of adult, cooperative, and special programs.

DEC 5185 CURRICULUM CONSTRUCTION: DISTRIBUTIVE EDUCATION (3)
Curriculum scope, the process of planning and organizing instructional programs with emphasis on task analysis and process evaluation.

ELEMENTARY EDUCATION

ARE 4313 ART FOR THE CHILD AND YOU (3)
Pr: Admission to College of Education. Art and the intellectual, creative, emotional, and aesthetic growth of children.

EDG 4301 TEACHING METHODS IN THE ELEMENTARY SCHOOL (4)
Pr: EDE 4941 and EDG 4620. Techniques and strategies appropriate to instruction of children in educational settings.

EDE 4905 INDEPENDENT STUDY: ELEMENTARY EDUCATION (1-4)
Pr: CI. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only)

EDE 4909 DIRECTED STUDY: ELEMENTARY EDUCATION (1-3)
Pr: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

EDE 4936 SENIOR SEMINAR IN ELEMENTARY EDUCATION (2)

EDE 4940 INTERNSHIP: ELEMENTARY EDUCATION (10)
Pr: EDE 4941 and EDE 4942. Teacher candidate is required to demonstrate professional competencies during one semester of full-day internship in a public or private elementary school. Concurrent enrollment in EDE 4946. (S/U only)

EDE 4941 CHILDHOOD EDUCATION INTERNSHIP LEVEL I (4)
Pr: Application for admission to the Elementary or Elementary/Early Childhood programs. Students spend six hours per week in a supervised in-school experience and attend weekly seminar. Concurrent enrollment in EDG 4620-Elementary section. (S/U only)

EDE 4942 CHILDHOOD EDUCATION INTERNSHIP LEVEL II (6)
Pr: EDE 4941. Students spend 12 hours per week in a supervised internship experience in classroom settings and attend a weekly seminar.

ECC 2003 INTRODUCTION TO EARLY CHILDHOOD EDUCATION (3)
An overview of early childhood education with emphasis on its historical development, current theories, and practices.

ECC 4203 PROGRAMS IN EARLY CHILDHOOD EDUCATION (4)
Pr: Admission to College of Education. A study of school programs for children age 3-8. Analysis and evaluation of these programs in the light of the most effective current classroom practices. Observation and participation included.

ECC 4303 CREATIVE EXPERIENCES IN EARLY CHILDHOOD EDUCATION (3)
Pr: Admission to College of Education. The development of the child's creative expression through art, music, dance, play, and drama; included are the materials, content, and teaching techniques.

ECC 4706 LANGUAGE AND LEARNING IN EARLY CHILDHOOD (3)
The study of the acquisition of language in young children and the development of basic communications skills in the Language Arts Curriculum, infancy through age 8 years.

ECC 4905 INDEPENDENT STUDY: ELEMENTARY/EARLY CHILDHOOD EDUCATION (1-4)
Pr: CI. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only)

ECC 4909 DIRECTED STUDY: ELEMENTARY/EARLY CHILDHOOD EDUCATION (1-3)
Pr: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

ECC 4936 SENIOR SEMINAR IN ELEMENTARY/EARLY CHILDHOOD EDUCATION (2)

ECC 4940 INTERNSHIP: ELEMENTARY/EARLY CHILDHOOD (10)
Teacher candidate is required to demonstrate professional competencies during one semester of full-day internship in a public or private elementary school. Concurrent enrollment in ECC 4946. (S/U only)

ECC 5406 SOCIAL GROWTH IN CHILDHOOD (3)
Pr: Admission to College of Education. A study of the principal factors which influence the social development of young children with particular emphasis upon those cultural influences which affect both child development and the educational programs for the
young child.

EEC 5705 INTELLECTUAL GROWTH IN CHILDHOOD (3)
Intracultural development of the normal child with particular emphasis on the studies of Jean Piaget and how they relate to curriculum for children, ages 0-8. Child study through observation required.

EEC 5926 WORKSHOP IN EARLY CHILDHOOD EDUCATION (3)
PR: Admission to College of Education. Individual problems and innovations related to methods and materials of instruction in the early childhood grades.

HLP 4460 HEALTH AND PHYSICAL EDUCATION FOR THE CHILD (3)
PR: Admission to the College of Education. A study of the importance of movement competency and its contribution to the development of a positive self-concept in children; content and methodology for developing appropriate movement experiences for children; content and methodology for teaching elementary health science.

LAE 4334 LANGUAGE ARTS IN CHILDHOOD EDUCATION (3)
PR: Admission to the College of Education. The exploration of the content, organization and instruction of oral communication and written expression in Childhood Education.

LAE 4414 LITERATURE IN CHILDHOOD EDUCATION (3)
PR: Admission to College of Education. The selection, evaluation and use of fiction, nonfiction and poetry for instructional, informational, and recreational purposes in Childhood Education.

MAE 4310 TEACHING ELEMENTARY SCHOOL MATHEMATICS I (3)
PR: Admission to College of Education, Number Systems, Basic Algebraic Concepts, Informal Geometry, or equivalent, and a passing score on the College of Education Test of Mathematical Competencies. Methods for teaching number ideas, computation skills, and mathematical reasoning.

MAE 4311 TEACHING ELEMENTARY SCHOOL MATHEMATICS II (2)
PR: MAE 4310. Methods for teaching informal geometry, measurement, probability and statistics.

MAE 4545 DIAGNOSIS AND TREATMENT OF LEARNING DISABILITIES IN SCHOOL MATHEMATICS (3)
PR: MAE 4310 or equivalent. Presentation and analysis of teaching methods and models appropriate for use with students experiencing learning disabilities in mathematics; supervised conduct of a case study.

MUS 4210 MUSIC FOR THE CHILD (3)
PR: Admission to College of Education. Music fundamentals, the development of music skills and knowledge of music materials and teaching strategies for presenting music to children in the elementary school.

RED 4310 READING FOR THE CHILD (3)
PR: Admission to College of Education. Prereading, word recognition, comprehension and basic study skills and various reading approaches and reading interests.

SCIE 4310 TEACHING ELEMENTARY SCIENCE (3)
PR: Admission to College of Education and completion of General Distribution Requirements in the Natural Science area. Techniques and materials for teaching science in the elementary school.

SS 4315 TEACHING ELEMENTARY SCHOOL SOCIAL STUDIES (3)
PR: Admission to College of Education or CI. Methods of planning and teaching subjects related to the study of people and their relationships with other people and their environment.

ENGLISH EDUCATION

LAE 4335 METHODS OF TEACHING ENGLISH-LITERATURE AND READING (3)
PR or CR: EDG 4620. A survey of materials available to adolescent readers plus an overview of organizational strategies for teaching literature and reading.

LAE 4530 READING SKILLS IN ENGLISH EDUCATION (2)
PR: RED 4360 or CC. Methods of dealing with reading problems and application of general reading concepts in English Education. (S/U only.)

LAE 4642 CURRENT TEACHING OF ENGLISH LANGUAGE AND MEDIA (3)
CR: EDG 4620 and LAE 4335. Methods of teaching language and media. Includes current findings on teaching usage, dialect, grammar, and semantics, as well as approaches to media in English.

LAE 4905 INDEPENDENT STUDY: ENGLISH EDUCATION (1-4)
PR: CI. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only)

LAE 4909 DIRECTED STUDY: ENGLISH EDUCATION (1-3)
PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

LAE 4936 SENIOR SEMINAR IN ENGLISH EDUCATION (2)
PR: Senior standing. Presentation of student-candidate's courses in complete college program. Required concurrently with internship.

LAE 4940 INTERNSHIP: ENGLISH EDUCATION (1-12)
One full semester of internship in a public or private school. Intern takes Senior Seminar in Education concurrently. In special programs where the internship experience is distributed over two or more semesters, student will be registered for credit which accumulates from 9 to 12 semester hours. (S/U only.)

LAE 5932 SELECTED TOPICS IN THE TEACHING OF ENGLISH (3)
PR: Certification in English and/or Mass Communications and approval of graduate adviser. Investigation of topics which are of special interest to the student and are related to the teaching of English in the secondary school. Topics will be selected by the student in accordance with his particular goals and will be approved by the student's graduate adviser.

FOREIGN LANGUAGE EDUCATION

FLE 4164 FOUNDATIONS OF BILINGUAL EDUCATION (2)
PR: Proficiency in English and one other language. Introduction to Bilingual/Bicultural Education including study of laws, programs, teaching situations and needs of minority groups.

FLE 4333 FOREIGN LANGUAGE TEACHING IN THE SECONDARY SCHOOL (3)

FLE 4334 PRACTICUM IN FOREIGN LANGUAGE TEACHING IN THE SECONDARY SCHOOL (3)
PR: FLE 4333. Research on available literature in the field of foreign language education and the psychology of language learning. Examination of the independence of language, culture, and geography. Extended study and practice of the sequential steps of foreign language teaching with emphasis on the audio-lingual approach.

FLE 4905 INDEPENDENT STUDY: FOREIGN LANGUAGE EDUCATION (1-4)
PR: CI. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only)

FLE 4909 DIRECTED STUDY: FOREIGN LANGUAGE EDUCATION (1-3)
PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.
EDF 3122 LEARNING AND THE DEVELOPING CHILD  
PR: General Psychology and admission to College of Education. (4)

EDF 3210 EDUCATIONAL PSYCHOLOGY  
PR: Upper level standing. The application of behavioral principles to human behavior in educational institutions, home and community settings. May not be counted for EDF 3214. (For non-education majors only.) (3)

EDF 3214 HUMAN DEVELOPMENT AND LEARNING  
PR: General Psychology and admission to College of Education. Application of respondent and operant learning principles to classroom learning, teaching models for different instructional goals, analysis of teacher behavior, micro-teaching. (3)

EDF 3220 BEHAVIOR MANAGEMENT IN ELEMENTARY SCHOOLS  
PR: EDF 3122. The application of theory and basic principles of learning design to enhance classroom instruction and child management procedures. Basic concepts of applied behavior analysis including the accurate measurement of child and teacher behavior in the ongoing instructional setting. (2)

EDF 3224 BEHAVIOR MODIFICATION TECHNIQUES  
PR: EDF 3214. Special techniques in behavior modification for children with learning difficulties. Minimum of two hours field experience per week required in addition to regular class hours. (4)

EDF 3542 PHILOSOPHY OF EDUCATION  
PR: Upper level standing. A study of philosophy of education with an emphasis on aspects that are relevant to an understanding of the issues and problems of teaching. (4)

EDF 3554 VALUES CLARIFICATION FOR TEACHERS  
PR: Upper level standing recommended. Techniques for teachers in identifying and analyzing values and value orientations of individuals and groups of students in the school. (3)

EDF 3604 SOCIAL FOUNDATIONS OF EDUCATION  
PR: Admission to College of Education. Social, economic and political context within which schools function and the values which provide direction for our schools; the culture as a motivating influence in instruction. Should not be taken concurrently with EDF 3214. (3)

EDF 3810 (formerly EDF 3710) COMPARATIVE EDUCATION  
PR: Upper level standing. A comparison of contemporary educational systems of selected countries with that of the United States. (3)

EDF 4131C LEARNING AND THE DEVELOPING ADOLESCENT  
PR: General psychology and admission to College of Education. Adolescent growth and development, learning theory, and behavioral analysis applied to instruction and to the organization and management of the classroom. (4)

EDF 4090 DIRECTED STUDY: EDUCATIONAL FOUNDATIONS  
PR: Senior Standing. To extend competency in teaching field. Offered only as a scheduled class. (1-3)

EDF 5136 ADOLESCENCE  
Study of the educational, intellectual, personal, social, and vocational factors in adolescence and their importance for school personnel. (4)

EDF 5285 PROGRAMMED INSTRUCTION AND TEACHING MACHINES  
Principles for programming in the several academic subjects. (3)

EIA 4360 SPECIAL TEACHING METHODS: INDUSTRIAL ARTS  
PR: EIV 4360 or CI. Equips Industrial Arts instructors with professional competencies for classroom and laboratory settings. Includes the selection of appropriate methods, planning, and delivery of instruction, along with supervision of students in laboratory areas. (3)

EIV 4210 (formerly EVT 4254) PROGRAM MANAGEMENT: INDUSTRIAL-TECHNICAL EDUCATION  
PR: CI. Planning, organizing, motivating and controlling of the learning environment in Industrial-Technical Education Classroom and Laboratories. Program standards for OSHA, program review, record keeping, and budgeting will be examined. (4)

EIV 4314 METHODS OF TEACHING: DIVERSIFIED COOPERATIVE TRAINING  
Methods, techniques, and materials for instruction. This course specializes in Diversified Cooperative Training. (3)

EIV 4360 (formerly EVT 4365) SPECIAL TEACHING METHODS: INDUSTRIAL-TECHNICAL EDUCATION  
PR: EIV 4360 or CI. Instructional techniques in industrial-technical education. Vocational Industrial Clubs of America activities may be included. (4)

EIV 5315 PROGRAM MANAGEMENT: DIVERSIFIED COOPERATIVE TRAINING  
Organization, coordination, and budgeting of adult, cooperative, and special programs. (3)

EVT 3060 (formerly EVT 3063) THE TEACHER IN THE WORLD OF WORK  
A study of educational efforts in preparing people for work, the relationship of a job to a man's life style, and the concept of education as a life-long process. (3)

EVT 4062C (formerly EVT 4061C) TEACHING IN INDUSTRIAL-TECHNICAL EDUCATION  
An overview of the ITE instructor’s roles and responsibilities concerning students, the school and the community and a look at the organization of vocational education, liability, and professionalism. (1-3)

EVT 4065 HISTORY AND PRINCIPLES OF VOCATIONAL EDUCATION  
An overview of current policies and principles in vocational education including their historical, sociological, and philosophical bases. Open to majors and non-majors. (4)

EVT 4084C PROFESSIONAL DEVELOPMENT IN INDUSTRIAL TECHNICAL EDUCATION  
Designed for the ITE teachers in forming plans of professional development. Competencies include the development of a personal education philosophy; attributes in creating harmonious school-community relationships; and desirable staff and teacher associations. (1-3)
EVT 4165 (formerly EVT 4176) CURRICULUM
CONSTRUCTION: INDUSTRIAL-TECHNICAL EDUCATION (4)
PR: EIV 4360 or CI. Design, development, implementation and evaluation of effective curricular materials in industrial, technical and health related occupations; includes individualized and self-paced materials. Open to majors and non-majors.

EVT 4263 ORGANIZATION AND ADMINISTRATION
OF STUDENT VOCATIONAL ORGANIZATIONS (1-4)
Includes the organization and administration of the local student vocational organization in industrial, health occupations, business and distributive education.

EVT 4312 (formerly EVT 4311) TEACHING METHODS:
HEALTH OCCUPATIONS (4)
PR: EIV 4360 or CI. Equips health occupations instructors with professional competencies for classroom, laboratory and clinical settings. Includes selection of appropriate methods, planning and delivery of effective demonstrations, use of media and supervision of students in clinical areas.

EVT 4365 (formerly EVT 4364) BASIC TEACHING
METHODS IN VOCATIONAL EDUCATION (4)
Examines the role of the vocational instructor in the teaching-learning process; looks at factors that promote and inhibit learning particularly for adults. Reviews a wide variety of instructional approaches, techniques and methods; includes selection of techniques for situations.

EVT 4367 ASSESSING STUDENT SKILL IN
INDUSTRIAL TECHNICAL EDUCATION (4)
Techniques for assessing student's mastery of skills in industrial/technical education. Focuses on specific competencies including developing and administering performance tests, monitoring student process, and others. Open to majors and non-majors.

EVT 4540 READING SKILLS IN ADULT AND
VOCATIONAL EDUCATION (2)
PR: RED 4360, or CR in RED 4360. Students will study reading and communication skills as they relate to their particular content areas in Adult and Vocational-Technical Education. This course, along with RED 4360, satisfies State certification requirement pertaining to secondary reading.

EVT 4815 FACILITY DESIGN AND MANAGEMENT (3)
Design and develop instructional facility floor plans consistent with modern and efficient methods of instruction as well as evaluate existing classrooms, laboratories, and shops. Selection and location of equipment. Review and prepare operational plans for the management of equipment, furniture, tools, and supplies as they relate to effective student learning.

EVT 4905 INDEPENDENT STUDY:
INDUSTRIAL-TECHNICAL EDUCATION (1-4)
PR: CI. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only.)

EVT 4909 DIRECTED STUDY:
INDUSTRIAL-TECHNICAL EDUCATION (1-3)
PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

EVT 4936 SENIOR SEMINAR IN
INDUSTRIAL-TECHNICAL EDUCATION (2)

EVT 4940 INTERNSHIP:
INDUSTRIAL-TECHNICAL EDUCATION (1-12)
One full semester of internship in a public or private school. Intern takes Senior Seminar in Education concurrently. In special programs where the intern experience is distributed over two or more semesters, students will be registered for credit which accumulates from 9-12 semester hours. (S/U only)

EVT 4946 SUPERVISED FIELD EXPERIENCE:
INDUSTRIAL-TECHNICAL EDUCATION (1-6)
PR: CI. Planned supervised functions in the area of specialization and co-ordinated with selected schools, government, offices, social agencies, businesses and industries on site. (S/U only)

EVT 5280 OCCUPATIONAL SAFETY
AND HEALTH (OSHA) (3)
Planning and organizing safety and health course content to be included in occupational education programs in Florida. Content to be identified in and selected from Federal Registers, Department of Labor, Occupational Safety and Health Standards.

EVT 5369 (formerly EVT 5366) PREPARATION AND
DEVELOPMENT FOR TEACHING (4)
The development of selected instructional materials, use of new educational media, performance evaluation instruments, and counseling techniques.

EVT 5664 (formerly EVT 5190) SCHOOL
COMMUNITY DEVELOPMENT (4)
This course is an approach to identifying, assessing, and analyzing, individual, institutional and community needs for the purpose of cooperative program planning, community involvement and public support.

MATHEMATICS EDUCATION

CAP 4100 COMPUTING DEVICES IN
THE EDUCATIONAL PROCESS (3)
PR: CI. Admission to the Department of Content Specializations. This course will explore the use of minicalculators, programmable calculators, and microcomputers. Characteristics of computing devices, flow charting, programming, classroom management techniques, teaching materials, and applications will be discussed.

MAE 4320 TEACHING JUNIOR
HIGH SCHOOL MATHEMATICS (3)
PR: 18 semester hours of mathematics or CC. Techniques and materials of instruction in junior high school mathematics topics only.

MAE 4330 TEACHING SENIOR HIGH
SCHOOL MATHEMATICS (3)
PR: EDG 4620 or CR in EDG 4620 and admission to teacher education program in mathematics. Techniques and materials of instruction in mathematics.

MAE 4885 READING THE LANGUAGE
OF MATHEMATICS (2)
PR or CI: Reading in Secondary Content Areas, Teaching Senior High School Mathematics, Methods of teaching students to read the language of mathematics.

MAE 4905 INDEPENDENT STUDY:
MATHEMATICS EDUCATION (1-4)
PR: Senior Standing. To extend competency in teaching field. Offered only as a scheduled class.

MAE 4909 DIRECTED STUDY:
MATHEMATICS EDUCATION (1-3)
PR: Senior Standing. To extend competency in teaching field. Offered only as a scheduled class.

MAE 4936 SENIOR SEMINAR IN
MATHEMATICS EDUCATION (2)

MAE 4940 INTERNSHIP: MATHEMATICS
EDUCATION (1-12)
One full semester of internship in a public or private school. Intern takes Senior Seminar in Education concurrently. In special programs where the intern experience is distributed over two or more semesters, students will be registered for credit which accumulates from 9 to 12 semester hours. (S/U only)

MAE 5636C THE UTILIZATION OF LABORATORY
TECHNIQUES IN THE TEACHING
OF MATHEMATICS (3)
PR: 12 semester hours of mathematics or CC. An examination of a variety of sample laboratory lessons along with methods for creating and evaluating such lessons.

MEASUREMENT AND RESEARCH

EDF 4430 MEASUREMENT FOR TEACHERS (3)
PR: Upper level standing. Concepts and skills related to planning,
developing, administering, and interpreting classroom tests; interpreting standardized tests; and evaluating and reporting student progress.

**MUSIC EDUCATION**

**MUE 2090 THEORETICAL BASES OF MUSIC EDUCATION** (BF) (1)
The course is designed to investigate music education practices in schools. It provides the student with experiences and information early in his academic career which will enable him to determine his commitment to professional music education.

**MUE 3421 CHORAL MATERIALS PRACTICUM** (1)
PR: CI. A study of choral materials in a laboratory setting, appropriate to elementary and secondary school music programs. Course content will change each semester. May be repeated for a total of 2 credit hours.

**MUE 3422 BAND MATERIALS PRACTICUM** (1)
PR: CI. A study of band materials, in a laboratory setting, appropriate to elementary and secondary school music programs. Course content will change each semester. May be repeated for a total of 2 credit hours.

**MUE 3423 ORCHESTRA MATERIALS PRACTICUM** (1)
PR: CI. A study of orchestra materials, in a laboratory setting, appropriate for elementary and secondary school music programs. Course content will change each semester. May be repeated for a total of 2 credit hours.

**MUE 3450 BEGINNING WOODWIND TECHNIQUES** (1)
PR: Sophomore standing, non-woodwind major. This course introduces the fundamentals of woodwind instrument pedagogy. In addition basic techniques of woodwind performance are taught through the study of clarinet and flute.

**MUE 3451 ADVANCED WOODWIND TECHNIQUES** (1)
PR: Sophomore standing, woodwind instrument major or MUE 3450. This course develops knowledge and skills dealing with advanced principles of teaching and performing on woodwind instruments.

**MUE 3460 BEGINNING BRASS TECHNIQUES** (1)
PR: Sophomore standing, non-brass majors. This course introduces the fundamentals of brass wind instrument pedagogy. In addition basic techniques of brass performance are taught through the study of trombone and trumpet.

**MUE 3461 ADVANCED BRASS TECHNIQUES** (1)
PR: Sophomore standing, brass instrument major or MUE 3460. This course develops knowledge and skills dealing with advanced principles of teaching and performing on all brass instruments.

**MUE 4210 MUSIC FOR THE CHILD** (3)
PR: Admission to the College of Education. Music fundamentals, the development of music skills and knowledge of music materials and teaching strategies for presenting music to children in the elementary school.

**MUE 4311 MUSIC IN THE ELEMENTARY SCHOOL** (3)
A study of principles, techniques, materials, and activities as they relate to a comprehensive music curriculum in Grades K-6.

**MUE 4330 CLASSROOM MUSIC IN THE SECONDARY SCHOOL** (3)
PR: CI. Development and implementation of methods and techniques for teaching music to the student not participating in secondary school music performing groups.

**MUE 4331 CHORAL METHODS IN THE SECONDARY SCHOOL** (3)
PR: CI, Junior standing. Development and implementation of methods and techniques for teaching secondary school choral music.

**MUE 4332 INSTRUMENTAL MUSIC IN THE SECONDARY SCHOOL** (3)
PR: CI, Junior standing. Development and implementation of methods and techniques for teaching secondary school instrumental music.

**MUE 4352 FOUNDATIONS OF INSTRUMENTAL MUSIC** (3)
PR: CI, Junior standing. Introduction to the foundations of instrumental music instruction in the elementary and middle school.

**MUE 4480 BAND PAGEANTRY** (1)
This course is designed as an elective offering for instrumental music majors who expect to direct band activities in a secondary school. It will provide the student with skills in creating half-time shows, an integral part of the band teacher's responsibilities.

**MUE 4905 INDEPENDENT STUDY: MUSIC EDUCATION** (1-4)
PR: CI. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only.)

**MUE 4909 DIRECTED STUDY: MUSIC EDUCATION** (1-3)
PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

**MUE 4936 SENIOR SEMINAR IN MUSIC EDUCATION** (2)
CR: MUE 4940. Synthesis of teacher candidate's courses in composition and music literature. (S/U only.)

**MUE 4940 INTERNSHIP: MUSIC EDUCATION** (1-2)
One full semester of internship in a public or private school. Internship takes Senior Seminar in Education concurrently. In special programs where the intern experience is distributed over two or more semesters, students will be registered for credit which accumulates from 9 to 12 semester hours. (S/U only.)

**MUE 4941 INTERNSHIP** (1-4)
Part-time internship in an accredited public or private school to be taken concurrently with departmental requirements and will include beginning of the year experiences when taken in Fall semester. (S/U only)

**MUE 4942 INTERNSHIP** (1-2)
PR: Admission to the College of Education and/or departmental approval. Internship in an accredited public or private school which will include the end of an academic year or program closing. (S/U only)

**PHYSICAL EDUCATION-ELECTIVE**

**DAA 1374 FOLK & SQUARE DANCE** (2)
An opportunity for the development of fundamental skills and knowledge necessary for enjoyment of Folk and Square Dancing. (S/U only.)

**PEL 1121 GOLF I** (2)
Introductory experience in the sport of golf. Fundamental skills, information, strategy, and participation. (S/U only.)

**PEL 1141 ARCHERY** (2)
Development and refinement of the essential skills and information necessary for enjoying the sport of Archery. (S/U only.)

**PEL 1341 TENNIS I** (2)
Introductory experiences in the sport of tennis. Basic skills, playing strategies, lecture, demonstration, and participation. (S/U only.)

**PEL 1346 BADMINTON** (2)
Progressive experiences in badminton, fundamental skills, strategy, and participation. (S/U only.)

**PEL 2122 GOLF II** (2)
Continuation of PEL 1121. Emphasis on course play and refinement of strokes. (S/U only.)

**PEL 2321 VOLLEYBALL** (2)
Review and refinement of fundamental skills, presentation and practice of the various offensive strategies. (S/U only.)

**PEL 2342 TENNIS II** (2)
Continuation of PEL 1341L. Refinement of basic skills, supplementary strokes, greater emphasis on tactics and playing strategies. (S/U only.)

**PEL 2441 RACKETBALL** (2)
Development and refinement of the skills and strategies of Racketball with opportunity for competition and tournament play. (S/U only.)

**PEL 2511 SOCCER** (2)
A course designed to present essential knowledge of the game of
society. Instruction and practice of basic skills, rules, team play, and conditioning. (S/U only.)

PEL 2621 BASKETBALL
Review and refinement of fundamental skills, presentation and prac-
tice of the various offensive and defensive strategies. (S/U only.)

PEM 1201 GYMNASTICS I
Introductory experiences in the various gymnastics events. Oppor-
tunities to specialize in areas of personal interests. (S/U only.)

PEM 1461 FOIL FENCING
Progressive experiences in the sport of Foil Fencing, fundamental
skills, strategy, information, and participation. (S/U only.)

PEM 2101 SPECIAL CONDITIONING
Varied activities designed to increase the functional ability of the
different aspects of physical fitness. (S/U only.)

PEM 2111 INDIVIDUAL PROGRAMMING
Individually prescribed and performed conditioning activities. (S/U
only.)

PEM 2116 FIGURE DEVELOPMENT
Varied activities designed to effect changes in body configuration
and functional ability. (S/U only.)

PEM 2131 WEIGHT TRAINING
Knowledge and techniques necessary for increasing muscle func-
tion. Assessment of status and development of a personal program
(S/U only.)

PEM 2141 AEROBICS
Introduction to the knowledge and techniques necessary for increasing
cardiorespiratory efficiency. Assessment of status and develop-
ment of a personal program. (S/U only.)

PEM 2202 GYMNASTICS II
Continuation of PEM 1201. Extended opportunities to master the
various gymnastics events. Competition and individual routines.
(S/U only.)

PEM 2376 BACKPACKING
Introductory experiences designed to develop the physical skills and
the mental attitude necessary to travel safely, efficiently, and con-
siderately in the wilderness setting. (S/U only.)

PEM 2441 KARATE
Introductory experiences in the sport of Karate. Fundamental skills,
strategy, information, and participation. (S/U only.)

PEM 2930 SELECTED TOPICS
Topics offered are selected to reflect student need and faculty inter-
rest. May be repeated up to 6 credit hours. (S/U only.)

PET 1121 SWIMMING I
Development and refinement of the essential skills and information
necessary for enjoying swimming. Emphasis on personal safety.
(S/U only.)

PET 2113 LIFESAVING
PR: PEN 2122 or equivalent. Knowledge and skills necessary for
saving one’s self or others in the event of aquatic emergency. (S/U
only.)

PET 2172 SWIMMING II
PR: PEN 1121 or equivalent. Continuation of PEN 1121. Special
emphasis on development of endurance and efficient stroking. (S/U
only.)

PET 2136 SKIN & SCUBA DIVING
PR: PEN 2122 or equivalent. Development of the essential skills and
knowledge necessary for enjoying the sport of Skin & Scuba Div-
ing. Correct utilization and care of equipment; emphasis on per-
sonal safety. (S/U only.)

PET 2251 CANOEING
PR: PEN 1121 or equivalent. Development and refinement of the
skills necessary for enjoying canoeing. Skills, safety techniques and
trips. (S/U only.)

PET 2330C HUMAN KINESIOLOGY I
An introduction to the structure and function of the skeletal and
neuromuscular systems in reference to their support of vigorous
human movement. (S/U only.)

PET 2340C HUMAN KINESIOLOGY II
PR: PET 2330C. An introduction to the mechanical principles which
govern human movement. (S/U only.)

PET 2382 INTRODUCTION TO EXERCISE
THEORY
An introduction to the basic principles underlying exercise techni-
qules for improving cardiovascular endurance, strength, flexibility,
and weight control. Examination and critique of popular fitness pro-
grams, fads and fallacies.

PET 3931 SELECTED TOPICS
Topics offered are selected to reflect student need and faculty inter-
rest. May be repeated up to 9 credit hours.

PHYSICAL EDUCATION
FOR TEACHERS

HESC 2400 FIRST AID
Meets the American Red Cross certification requirements in stan-
dard and advanced first aid.

LEI 4007 COMMUNITY RECREATION
Introduction to recreational outlets in the community and the ad-
m ministering problems confronting recreational playground leaders
directors of community recreational programs. Offered on Inde-
dependent Study basis only.

PEP 4941 WELLNESS INTERNSHIP
PR: CC. Completion of all curriculum requirements. Supervised
performance in adult fitness and/or wellness programs. Full semester
on-site. Open to Wellness Leadership Physical Education Majors
only. (S/U only.)

PEQ 3101 AQUATICS
PR: Red Cross beginning swimmer’s skills, or equivalent. Includes
.analysis of swimming skills, teaching methodology, conducting class
activities, and organizing and conducting aquatic programs.

PEQ 3170 AQUATIC EXERCISE
PR: CC. An instructor training course in aquatic exercise. Focuses
on teaching aerobic, strength, flexibility, and weight control exer-
cises performed in swimming pools. Open to non-majors.

PET 2000 INTRODUCTION TO PHYSICAL
EDUCATION IN TODAY’S SOCIETY
PR: CL. An overview of the field of physical education, including
the role of the physical education teacher and non-teaching career
options. The role of play, sport, and physical education in today’s
society is emphasized and the competencies necessary to careers in
physical education. (S/U only.)

PET 301C INDIVIDUAL ASSESSMENT
A personal evaluation of various factors related to the effective
Teaching of physical education. An individual profile that can be
used for counseling purposes will be the final product of this course.

PET 3012 PERSONAL/PROFESSIONAL
DEVELOPMENT SEMINAR
PR: CC. Identification of personal and professional knowledge, skills,
and attitudes necessary for successful professional practice of physical
educators. Introduction to career opportunities and the historical,
philosophical, and sociological foundations of the profession.
Development of a professional development plan. Field
work required. Majors only.

PET 3031 MOTOR DEVELOPMENT AND
ASSESSMENT
PR: CC. Study of the assessment, evaluation and motor develop-
ment performance of children and adolescents and application of
principles of motor skills acquisition in physical education instruc-
tion. Open to non-majors.

PET 3080 SURVEY OF WELLNESS PROGRAM
PR: CC. An analysis of various types of wellness programs in the pub-
lic and private sector including community-based programs, com-
mmercial health and fitness enterprises, government-based programs,
corporate-based programs, and hospital health and fitness centers.

PET 3310 KINESIOLOGY
PR: CC. A study of the structure and function of the skeletal and
muscular systems and of mechanical principles related to
psychomotor performance. Open to non-majors.
PET 3313 HUMAN KINETICS II (6)
PR: PET 3372. An application of anatomy and physiology related to
typical physical activity. Emphasis is placed on the acute and chronic
adaptation of the body activity as reflected at cellular level. The
special needs of physical educators in working with different ages,
sexes, and atypical persons are considered.

PET 3351 EXERCISE PHYSIOLOGY I (3)
PR: CC. A study of the effects of physical activity on the body.
Topics include acute and chronic adaptation of the cardiovascular,
muscular, metabolic, hormonal, and energy systems to exercise. Open
to non-majors.

PET 3421 CURRICULUM AND INSTRUCTION IN
PHYSICAL EDUCATION (3)
PR: CC. Development of knowledge and skills related to the in-
struction process of physical education. Preparation of materials and
planning and personal-professional development plan developed in
previous semester. Taken concurrently with PET 3434C.

PET 3422 INSTRUCTIONAL DESIGN AND CONTENT:
MOVEMENT EXPERIENCES (3)
PR: CC. This course develops a variety of motor skills and includes
the study of systems for analyzing movement. It prepares students
to plan and conduct movement exercises in a wide variety of educa-
tional settings.

PET 3434C MOVEMENT EDUCATION THEORY AND
APPLICATION II (3)
PR: PET 3434C. A two course sequence emphasizing movement
experiences appropriate for elementary school children. The
philosophy, objectives, and analytical framework of movement educa-
tion are studied relative to basic movement concepts.

PET 3441 INSTRUCTIONAL DESIGN AND CONTENT:
MIDDLE SCHOOL PHYSICAL EDUCATION (3)
PR: CC. The development of physical education content and in-
structional practices for middle school students. The focus is upon
matching appropriate content and learning experiences to the unique
needs of the pre- and early adolescent learner.

PET 3799 CAREER DECISION-MAKING AND
PROFESSIONAL ETHICS (1)
PR: CC. Teacher certification career decision-making activities.

PET 3943 PHYSICAL EDUCATION INTERNSHIP:
MIDDLE SCHOOL (4)
PR: CC. A part-time internship in middle school physical educa-
tion. Focus on the relationship of physical education to the needs of
the pre- and early adolescent learner, the organization and pur-
pose of the middle school, and application appropriate content and
methodologies.

PET 3944C SEMINAR AND INTERNSHIP II (5)
Physical education teaching experience is provided at various grade
levels. Seminars are concerned with organization, evaluation, and
extra-class activities. Individual teaching is analyzed and

PET 4092 APPLIED HUMAN KINETICS II (4)
The biomechanical analysis of movement, principles of psychomotor
learning, teaching methodologies and teaching competencies in in-
dividual and team sports and in teaching specialized health-related
topics such as weight control and individual assessment techniques.

PET 4141 TRENDS AND TASKS - ELEMENTARY
PHYSICAL EDUCATION (1)
PR: CC. Current trends are evaluated from a historical and
philosophical perspective. Non-teaching tasks are identified as part
of the professional role. Evaluate and continue personal-professional
development plan developed in previous semesters. Taken concur-
rently with Physical Education Internship: Elementary. Physical
Education Majors only.

PET 4142 TRENDS AND TASKS - SECONDARY
PHYSICAL EDUCATION (1)
PR: CC Current trends are evaluated from a historical and
philosophical perspective. Non-teaching tasks are identified as part
of the professional role. Evaluate and continue personal-professional
development plan developed in previous semesters. Taken concur-
rently with Physical Education Internship: Secondary. Physical
Education Majors only.

PET 4304 PRINCIPLES AND ISSUES
IN COACHING (3)
The application of principles from philosophy, psychology, sociology,
and physiology to competitive athletics and coaching.

PET 4353 EXERCISE PHYSIOLOGY II (3)
PR: CC & PET 3352. A study of Exercise Physiology focusing on
the adult. Includes specific populations such as the obese, heart pa-
tients, arthritics, elderly, and high performance athletes. Open to
non-majors.

PET 4381C APPLIED HUMAN KINETICS I (4)
The focus is on the biomechanical analysis of movement in dance
and selected sports, physical fitness, and exercise principles as related
to teaching. Emphasis is directed to developing competency in
teaching all aspects of individual and team sports and in teaching
specialized health-related topics such as weight control and individual
fitness assessment techniques.

PET 4384 HEALTH-FITNESS APPRAISAL &
EXERCISE PRESCRIPTION (3)
PR: CC & PET 3352. Techniques in conducting health-fitness test
and exercise prescription for adults. Includes cardiovascular strength,
flexibility, body composition, health risk testing, exercise prescribing,
and monitoring. Open to non-majors.

PET 4401 ORGANIZATION &
ADMINISTRATION OF SECONDARY PHYSICAL
EDUCATION PROGRAMS (3)
PR: CC. A study of organizational and administrative procedures
for secondary school physical education programs. Includes schedul-
ing, budget, facilities, extra-curricular programs, and the selection
and supervision of staff.

PET 4404 ORGANIZATION & ADMINISTRATION OF
WELLNESS PROGRAMS (3)
PR: CC. Design and implementation of various types of wellness
programs with emphasis on assessment and evaluation management,
staffing, participant adherence, program design, budgeting and
marketing.

PET 4432 INSTRUCTIONAL DESIGN AND
CONTENT: PHYSICAL EDUCATION
ELEMENTARY (3)
PR: CC. This is the second of a three-course sequence to prepare
students to select, plan and conduct appropriate fundamental move-
ment experiences for students K-6.

PET 4433 INSTRUCTIONAL DESIGN AND
CONTENT: PHYSICAL EDUCATION
ELEMENTARY II (3)
This course prepares students to select, plan, conduct complex move-
ment experiences for students K-6.

PET 4442 INSTRUCTIONAL DESIGN AND
CONTENT: PHYSICAL EDUCATION
SECONDARY (3)
PR: CC. Development of knowledge and skills related to the teaching
of selected movement activities such as team sports, gymnastics, and
physical fitness. Focus is on understanding mechanical principles util-
ized within those activities as well as on instructional progression
and the preparation of materials for instruction at the secondary
school level.

PET 4443 INSTRUCTIONAL DESIGN AND
CONTENT: PHYSICAL EDUCATION
SECONDARY II (3)
PR: CC. Development of knowledge and skills related to the teaching
of selected movement activities such as dance, dual and individual
sports. Focus is on understanding mechanical principles utilized
within those activities as well as on instructional progression and
the preparation of instructional materials at the secondary school
level.

PET 4622 CARE AND PREVENTION OF PHYSICAL
INJURIES (2)
Principles and techniques of conditioning athletes for competition;
prevention and care of injuries in physical education and athletic
activities.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Credit Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED 4360</td>
<td>READING IN SECONDARY CONTENT AREAS</td>
<td>PR: RED 4360 or CR in RED 4360</td>
<td>(2)</td>
<td>Provides basic instruction on phonics, word recognition, readability, interests, corrective procedures, reading behaviors, comprehension, etc. Offered only in conjunction with special content reading courses.</td>
</tr>
<tr>
<td>RED 4515</td>
<td>CORRECTIVE READING FOR THE CHILD</td>
<td>PR: RED 4310 or equivalent</td>
<td>(3)</td>
<td>Procedures for meeting individual differences through diagnosis of needs, differentiated instruction, selected use of materials, and classroom organization.</td>
</tr>
<tr>
<td>LIS 2001</td>
<td>USE OF THE LIBRARY</td>
<td>PR: Admission to the resources of the University of South Florida Library. Emphasis will be placed on library materials germane to the course work of the undergraduate. (S/U only)</td>
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<tr>
<td>LIS 4302</td>
<td>PRODUCING AUDIOVISUAL MATERIALS</td>
<td>PR: Upper level standing or Cl. Basic skills in designing and preparing audiovisual materials for wide variety of instructional and communicative purposes.</td>
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</tr>
<tr>
<td>LIS 4503</td>
<td>INSTRUCTIONAL TECHNOLOGY</td>
<td>PR: Upper level standing or Cl. Provides basic skills in selecting, utilizing, presenting, and evaluating: 1) various types of audio-visual media and 2) computers and computer software for use with students in a variety of classroom and learning situations.</td>
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</tr>
<tr>
<td>LIS 5315</td>
<td>INSTRUCTIONAL GRAPHICS</td>
<td>PR: Cl. Theoretical aspects, planning and production of instructional graphic material. The Theory of graphic communications. Interpreting needs for instructional materials appropriate for given behavioral objectives.</td>
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</tr>
<tr>
<td>LIS 5321</td>
<td>PREPARING SINGLE CONCEPT FILMS</td>
<td>PR: Cl. Techniques and procedures in the preparation of educational films. Ascertaining concepts, script writing, graphics, lighting, filming, editing.</td>
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</tr>
<tr>
<td>LIS 5333</td>
<td>TV IN SCHOOL AND LIBRARIES</td>
<td>PR: All required courses completed.</td>
<td>(3)</td>
<td>Small format video tape recordings and the utilization of open and closed broadcasts in schools and libraries.</td>
</tr>
<tr>
<td>LIS 5404</td>
<td>FOUNDATIONS OF LIBRARIANSHIP</td>
<td>Cl. Overview of the introduction to the study of library service; history; organization; specialized literature; outstanding leaders; current trends, issues, and problems. Place of the library in society with its contributions to that society.</td>
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</tr>
<tr>
<td>LIS 5434</td>
<td>COMMUNITY COLLEGE LIBRARIANSHIP</td>
<td>Cl. Introduction to the community college concept, examination of the basic elements, functions, purposes, directions, programs, etc. Inherent in both the community college and the library resources center which serves it.</td>
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</tr>
<tr>
<td>LIS 5937</td>
<td>SELECTED TOPICS IN LIBRARY STUDIES</td>
<td>PR: Cl. Covers a variety of topics in such areas as collection development, reference services, technical services, and administration.</td>
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</tr>
</tbody>
</table>

## SCIENCE EDUCATION

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Prerequisites</th>
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</tr>
</thead>
<tbody>
<tr>
<td>SCE 4305</td>
<td>COMMUNICATION SKILLS IN THE SCIENCE CLASSROOM</td>
<td>PR: RED 4360 or CR in RED 4360</td>
<td>(2)</td>
<td>Reading and communication skills important in understanding scientific literature and communicating findings to others.</td>
</tr>
<tr>
<td>SCE 4320</td>
<td>TEACHING METHODS FOR JUNIOR HIGH SCHOOL SCIENCE</td>
<td>PR: Completion of 25 semester hours of Science or CC. Survey techniques and materials unique to science, grades 7-9. Not designed for high school certification purposes.</td>
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</tr>
<tr>
<td>SCE 4330</td>
<td>TEACHING METHODS IN THE SECONDARY SCHOOL-SCIENCES</td>
<td>PR: Completion of 26 hours in approved science areas, EDG 4620</td>
<td>(3)</td>
<td>Completion of courses in selected science areas.</td>
</tr>
</tbody>
</table>

### READING EDUCATION

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>PET 4905</td>
<td>INDEPENDENT STUDY: PROFESSIONAL PHYSICAL EDUCATION</td>
<td>PR: Cl. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only)</td>
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<tr>
<td>PET 4909</td>
<td>DIRECTED STUDY: PROFESSIONAL PHYSICAL EDUCATION</td>
<td>PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.</td>
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<tr>
<td>PET 4933</td>
<td>SENIOR SEMINAR IN SECONDARY PHYSICAL EDUCATION</td>
<td>PR: Cl. Synthesis of teacher candidate's courses in complete college program. Reflective evaluation of teaching experience. Required concurrently with Associate Teaching in Physical Education: Secondary. Physical Education Majors only.</td>
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<tr>
<td>PET 4934</td>
<td>SENIOR SEMINAR IN ELEMENTARY PHYSICAL EDUCATION</td>
<td>PR: Cl. Synthesis of teacher candidate's course in complete college program. Reflective evaluation of teaching experience. Required concurrently with Associate Teaching in Physical Education: Elementary. Physical Education Majors only.</td>
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<tr>
<td>PET 4942</td>
<td>PHYSICAL EDUCATION INTERNSHIP: ELEMENTARY</td>
<td>PR: Cl. A part-time internship in elementary school physical education. Focus on the nature of the total elementary school curriculum, characteristics of students, and application of appropriate content and instructional competencies. (S/U only)</td>
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<tr>
<td>PET 4943</td>
<td>SEMINAR AND INTERNSHIP III</td>
<td>PR: Cl. Supervised teaching experiences in physical education at the secondary school level. On-campus seminars emphasize the influence of various teaching styles on the learning process; the process of individualizing learning experiences in the psychomotor, cognitive, and affective domain.</td>
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<tr>
<td>PET 4944</td>
<td>PHYSICAL EDUCATION INTERNSHIP: SECONDARY</td>
<td>PR: Cl. A part-time internship in high school level physical education with focus on the relationship of physical education to the needs of the early adolescent and the implementation of appropriate content and methodology. (S/U only)</td>
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<tr>
<td>PET 4946</td>
<td>ASSOCIATE TEACHING PHYSICAL EDUCATION: ELEMENTARY</td>
<td>PR: Cl. A full-time internship in elementary school physical education. Focus on the organization and administration, content and instructional processes of elementary physical education. May not be repeated. (S/U only)</td>
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<tr>
<td>PET 4947</td>
<td>ASSOCIATE TEACHING PHYSICAL EDUCATION: SECONDARY</td>
<td>PR: Cl. A full-day internship in middle, junior or senior high school physical education programs with focus on the implementation of appropriate content and methodology to meet the needs of secondary students. (S/U only)</td>
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<tr>
<td>PET 4947</td>
<td>ATHLETIC TRAINING PRACTICUM</td>
<td>PR: Cl. A ten-week training room practicum on skills in preventive strapping and review first aid and rehabilitation techniques, followed by a five-week practicum with local high schools or professional teams.</td>
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</table>

Enrollment in these courses requires admission to the Physical Education program.
SCE 4630 NEW TRENDS IN TEACHING
THE PHYSICAL SCIENCES (3)
Physical Science Study Committee Physics, Chemical Education Materials Study, and other new approaches to the teaching of the physical sciences. Recommended for teachers of Physics, Chemistry, and Earth Sciences.

SCE 4631 NEW TRENDS IN TEACHING
BIOLOGY (3)
Recent developments in curriculum materials and in strategies for teaching biological sciences, grades 7-12. Recommended for preservice teachers of secondary school biology.

SCE 4905 INDEPENDENT STUDY: SCIENCE
EDUCATION (1-4)
PR: CI. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only.)

SCE 4909 DIRECTED STUDY: SCIENCE
EDUCATION (1-3)
PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

SCE 4936 SENIOR SEMINAR IN SCIENCE
EDUCATION (2)

SCE 4940 INTERNSHIP: SOCIAL SCIENCE
EDUCATION (1-12)
One full semester of internship in a public or private school. Intern takes Senior Seminar in Education concurrently. In special programs where the intern experience is distributed over two or more semesters, students will be registered for credit which accumulates from 9 to 12 Semester hours. (S/U only.)

SOCIAL SCIENCE EDUCATION

SSE 4333 INTRODUCTION TO TEACHING
SECONDARY SOCIAL SCIENCE EDUCATION (3)
This introductory course is concerned with the identification of the major content areas selected from the various social sciences. Topics related to selecting, organizing, and sequencing teaching materials and methods related to the unique problems of teaching teenage youth are studied.

SSE 4334 SECONDARY SOCIAL SCIENCE
EDUCATION TEACHING METHODS (3)
PR: SSE 4333. This course is designed to identify and study selected techniques and strategies used in social science education instruction. Emphasis is placed upon the learner's ability to demonstrate skill in selecting methods, techniques, materials, and evaluative forms. Field work is a requirement.

SSE 4540 COMMUNICATION SKILLS IN
THE SOCIAL STUDIES (2)
PR: CC. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only.)

SSE 4905 INDEPENDENT STUDY:
SOCIAL SCIENCE EDUCATION (1-4)
PR: CI. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only.)

SSE 4909 DIRECTED STUDY:
SOCIAL SCIENCE EDUCATION (1-3)
PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

SSE 4936 SENIOR SEMINAR IN
SOCIAL SCIENCE EDUCATION (2)

SSE 4940 INTERNSHIP: SOCIAL SCIENCE
EDUCATION (1-12)
One full semester of internship in a public or private school. Intern takes Senior Seminar in Education concurrently. In special programs where the intern experience is distributed over two or more semesters, students will be registered for credit which accumulates from 9 to 12 Semester hours. (S/U only.)

SPECIAL EDUCATION

EED 4011 INTRODUCTION TO BEHAVIOR
DISORDERS (3)
PR: EEX 3010, or equivalent or CI. Survey of emotional and social disorders in children and youth. History of the field, definitions, classifications, theoretical approaches, intervention techniques, classroom management, service delivery models, trends and issues.

EED 4321 EDUCATIONAL PROCEDURES FOR
STUDENTS WITH BEHAVIOR DISORDERS (3)
PR: EEX 3010, EED 4011, or equivalent or CI. Methods, materials and instructional techniques; development and implementation of individualized education programs; classroom organization and curriculum for students with behavior disorders.

EED 4905 INDEPENDENT STUDY:
BEHAVIOR DISORDERS (1-3)
PR: CI. Specialized independent study determined by the student's needs and interests. May be repeated up to 3 credit hours when subjects vary. (S/U only.)

EED 4909 DIRECTED STUDY: BEHAVIOR
DISORDERS (1-3)
PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

EED 4941 UNDERGRADUATE SUPERVISED
PRACTICUM IN BEHAVIOR
DISORDERS (1-6)
PR: CI. Field experience in classroom management, behavior modification, precision teaching, and educational programming in behavior disorders. (S/U only.) Repeatable up to 6 credit hours.

EEX 3010 INTRODUCTION TO SPECIAL
EDUCATION (3)

EEX 4070 INTEGRATING EXCEPTIONAL STUDENTS
IN THE REGULAR CLASSROOM (2-3)
Designed for non-special education majors. Includes basic identification techniques and strategies to promote academic and social integration and interaction of "mainstreamed" exceptional students. Concurrent field experience projects are included. No credit for department majors.

EEX 4221 EDUCATIONAL ASSESSMENT OF
EXCEPTIONAL STUDENTS (3)
PR: EDF 3214, EEX 3010, EMR 3011, EED 4011, or ELD 4011, and an Exceptional Child Education major. Introduction to and familiarity with formal and informal techniques used to measure and evaluate all exceptional students. The interpretation of information so derived for utilization in educational programming and individualization of instruction. Lect-Lab.

EEX 4243 EDUCATION OF THE EXCEPTIONAL
adolescent and adult (3)
PR: EEX 3010 or equivalent or CI. Procedures for implementing educational programs for exceptional adolescents and adults. Topics include service delivery, curriculum, academic remediation, advocacy, utilization of ancillary services, alternative programs, and community resources. Practicum/field experience linkage.

EEX 4905 INDEPENDENT STUDY:
EXCEPTIONAL STUDENT EDUCATION (1-3)
PR: CI. Specialized independent study determined by the student's needs and interests. May be repeated up to 3 credit hours when subjects vary. (S/U only.)

EEX 4909 DIRECTED STUDY:
EXCEPTIONAL STUDENT EDUCATION (1-3)
PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class. Repeatable up to 3 credit hours.

EEX 4936 SENIOR SEMINAR IN EXCEPTIONAL
STUDENT EDUCATION (2)
PR: Senior standing. Synthesis of teacher candidate's courses in com-
EMR 3011 INTRODUCTION TO GIFTED AND TALENTED
PR: CL. Senior standing. This course is concerned with the characteristics, needs and abilities of children with specific learning disabilities. May be repeated up to 6 credit hours.

EMR 4941 UNDERGRADUATE SUPERVISED PRACTICUM IN GIFTED STUDENT EDUCATION
Organized, supervised experiences with gifted student. Specific experiences may be either a combination of observation and assistance with gifted children or individualized projects.

EGI 5325 CREATIVE PROBLEM SOLVING FOR THE CHILD
PR: EEX 3010 or CL. Exploration of the concept of creativity, its factors, measurement, and application to education. Opportunities are given to work with children in a laboratory setting and to prepare materials to be used with small groups of children.

EEX 4940 INTERNSHIP: EXCEPTIONAL STUDENT EDUCATION
One full semester of internship in an accredited public or private school. Intern takes Senior Seminar in Education concurrently. In special programs where the intern experience is distributed over two or more semesters, students will be registered for credit which accumulates from 9 to 12 semester hours. (S/U only)

EEX 5705 SEMINAR IN PRESCHOOL HANDICAPPED (2)
PR: Cl. Seminar intended to familiarize the education student with the wide range of needs and services of the preschool handicapped child and their families and how they coordinate with educational services. May be repeated up to 6 credit hours.

EMR 3101 INTRODUCTION TO MENTAL RETARDATION
PR: EMR 3011 or CL. Introduction to the classification, diagnosis, characteristics, and treatment of the mentally retarded.

EMR 4230 EDUCATING THE SEVERELY/PROFOUNDLY HANDICAPPED
PR: EMR 3011 or CL. Must be taken concurrently with EMR 3800. Emphasis on educational methods and materials for teaching the severely/profoundly handicapped. Practicum/field experience required.

EMR 4905 INDEPENDENT STUDY: SPEECH COMMUNICATION-ENGLISH EDUCATION
PR: EMR 3011, RED 4310, EMR 4941 either previously or concurrently. Special class organization, curriculum development, proceedings and materials for elementary aged educable mentally retarded children.

EMR 4313 EDUCATIONAL PROCEDURES FOR EDUCABLE MENTALLY RETARDED SECONDARY YOUTH AND ADULTS
PR: EMR 3011, or CL. Special program organization, curriculum development, procedures and materials for secondary age educable mentally retarded youth and adults.

EMR 4909 DIRECTED STUDY: MENTAL RETARDATION
PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

EVI 5311 THE VISUALLY HANDICAPPED IN THE CLASSROOM
PR: EEX 3010 or CL. The visually handicapped in the classroom, structure, hygiene and educational implications.

EMR 4941 UNDERGRADUATE SUPERVISED PRACTICUM IN MENTAL RETARDATION
Organized, supervised practicums experiences in the educational, social and vocational programming for mentally retarded individuals. A one hour per week seminar is required concurrently. Repeatable up to a total of 6 hours credit. (S/U only)

EPH 5051 ADVANCED THEORIES IN MOTOR AND PHYSICAL DISABILITIES
PR: EEX 3010 or CL. Biological and functional aspects of motor and physical health disabilities, including dysfunctions in central nervous system covering motor, sensory, language and psychological disorders.

EPH 5321 EDUCATIONAL STRATEGIES FOR PHYSICALLY AND MULTIHANDICAPPED STUDENTS
PR: EPH 5051. Educational management of students with cerebral palsy, motor disabilities and multi-handicapped conditions including rehabilitation and other community services.

EMR 4909 INDEPENDENT STUDY: SPECIFIC LEARNING DISABILITIES
PR: CL. Specialized independent study determined by student's needs and interests. May be repeated when subjects vary. (S/U only)

EMR 3101 INTRODUCTION TO MENTAL RETARDATION
PR: EMR 3011 or CL. Introduction to the classification, diagnosis, characteristics, and treatment of the mentally retarded.

EMR 4230 EDUCATING THE SEVERELY/PROFOUNDLY HANDICAPPED
PR: EMR 3011 or CL. Must be taken concurrently with EMR 3800. Emphasis on educational methods and materials for teaching the severely/profoundly handicapped. Practicum/field experience required.

EMR 4905 INDEPENDENT STUDY: SPEECH COMMUNICATION-ENGLISH EDUCATION
PR: CL. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only)
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Offered</th>
<th>Description</th>
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<tr>
<td>SED 4909</td>
<td>DIRECTED STUDY: SPEECH COMMUNICATION-ENGLISH EDUCATION (1-3)</td>
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<td>PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.</td>
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<tr>
<td>SED 4936</td>
<td>SENIOR SEMINAR IN SPEECH COMMUNICATION-ENGLISH EDUCATION (2)</td>
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<td>PR: Senior standing. Synthesis of teacher candidate's courses in complete college program. Required concurrently with internship.</td>
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<tr>
<td>SED 4940</td>
<td>INTERNSHIP: SPEECH COMMUNICATION-ENGLISH EDUCATION (1-12)</td>
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<td>One full semester of internship in public or private school. Intern takes Senior Seminar in Education concurrently. In special programs where the intern experience is distributed over two or more semesters, students will be registered for credit which accumulates from 9 to 12 semester hours. (S/U only.)</td>
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COLLEGE OF ENGINEERING


BASIC AND INTERDISCIPLINARY ENGINEERING

EGN 1002 ENGINEERING ORIENTATION (0)
The role of engineering in society, characteristics of different fields of engineering, required preparation for engineering careers, techniques and approaches used by engineers in their profession. (S/U only).

EGN 1115L INTRODUCTION TO DESIGN GRAPHICS (3)
An introduction to the basic principles of engineering design. The course will include the graphic projection systems used in engineering drawing and design. Methods of graphic communication and graphic analysis of engineering design problems will be investigated.

EGN 2200 ENGINEERING WITH COMPUTERS (2)
Fundamental concepts in engineering and computer applications. Examples chosen from various areas of engineering to illustrate design modelling and analysis with computer assistance. Some topics involve laboratory.

EGN 2210 FORTRAN FOR ENGINEERS (3)
PR: MAC 3281 FORTRAN programming for engineers. Solving engineering type problems using the computer; introduction to programming algorithms used by the practicing engineer.

EGN 3313 STATICS (3)

EGN 3321 DYNAMICS (3)
PR: EGN 3313. Dynamics of discrete particles, kinematics and kinetics for rigid bodies. Lec.

EGN 3331 MECHANICS OF MATERIALS (3)
PR: EGN 3313. Stress, strain, Hook's Law; torsion, beam, column analysis; combined stresses; inelastic effects, limit design. Lec.

LABORATORY (1)

EGN 3343 THERMODYNAMICS I (3)

EGN 3354C BASIC FLUID MECHANICS (3)
PR: EGN 3313. Fundamental and experimental concepts in ideal and viscous fluid theory; momentum and energy consideration, introduction to hydraulics, pipe flow. Lecture.

EGN 3365L MATERIALS ENGINEERING I (3)
PR: Admission to the College of Education. A study of the importance of movement competency and its contribution to the development of a positive self-concept in children; content and in engineering materials, i.e., metal, ceramic and polymer systems. Environmental effects are also treated.

EGN 3373 INTRODUCTION TO ELECTRICAL SYSTEMS I (3)

EGN 3374 INTRODUCTION TO ELECTRICAL SYSTEMS II (3)
PR: EGN 3373. Continuation of EGN 3373.

EGN 3375 INTRODUCTION TO ELECTRICAL SYSTEMS III (3)
PR: EGN 3373. Continuation of EGN 3373 or EGN 3374.

EGN 3433L SYSTEM DYNAMICS (3)
PR: PHY 3041, EGN 4450. Dynamic analysis of electrical, mechanical, hydraulic and thermal systems; LaPlace transforms; numerical method; use of computers in dynamic systems.

EGN 3443 ENGINEERING STATISTICS I (3)
PR: MAC 3283. An introduction to the basic concepts of statistical analysis with special emphasis on engineering applications.

EGN 3613 ENGINEERING ECONOMY I (3)
A study in analyzing the economic limitations imposed on engineering activities using basic models which consider the time value of money.

EGN 4355 COMPRRESSIBLE FLOW (3)
PR: EGN 3354C. Fundamental and experimental concepts in compressible flow theory of fluids.

EGN 4366 MATERIALS ENGINEERING II (3)
PR: 3365L. Applications and structure property relationships of commonly used engineering materials. Steel, nonferrous alloys and their welding, heat treatment and processing. Introduction to ceramic and polymeric materials.

EGN 4420 NUMERICAL METHODS OF ANALYSIS (3)

EGN 4421 ENGINEERING ANALYSIS I (3)

EGN 4450 INTRODUCTION TO LINEAR SYSTEMS (2)
PR: EGN 4421. Study and application of matrix algebra, differential equations and calculus of finite differences.

EGN 4905 INDEPENDENT STUDY (1-5)
PR: CI. Specialized independent study determined by the students' needs and interests. May be repeated up to 15 credit hours. (S/U only)

EGN 4953 SPECIAL TOPICS (1-5)
New technical topics of general interest on an intermediate or experimental basis. May be repeated to a total of 10 credit hours.
EGN 4935 PROFESSIONAL ENGINEERING
SEMINAR I (1-5)
PR: CI. A lecture-discussion seminar on modern trends in the engineering profession.

EGN 4936 PROFESSIONAL ENGINEERING
SEMINAR II (1-5)
PR: CI and Senior standing. An examination of current engineering and related problems facing the graduating senior.

EGN 5422 ENGINEERING ANALYSIS II (3)

EGN 5423 ENGINEERING ANALYSIS III (3)

EGN 5424 ENGINEERING ANALYSIS IV (3)

EGN 5425 ENGINEERING ANALYSIS V (3)
PR: CC. Special topics in engineering analysis. Content varying from year to year. May be repeated.

CHEMICAL AND MECHANICAL ENGINEERING

ECH 4234 MASS TRANSFER (3)
PR: EMC 4118. Study and applications of molecular and turbulent diffusion in fluids, diffusion in solids, mass transfer coefficients and interphase mass transfer. Selection of humidification and absorption equipment.

ECH 4413 SEPARATION PROCESSES DESIGN (3)

ECH 4415C REACTING SYSTEMS (3)
PR: ECH 4413. Equilibrium and rate phenomena in reacting systems. Description of homogeneous chemical reactors for process design and control.

ECH 4615 PLANT DESIGN AND ECONOMICS (3)
PR: ECH 4414. ECH 4415 or CI. Methods of cost estimation and profitability measures. Analysis and synthesis of optimal chemical processing routes. Design of chemical process equipment. Introduction to computer-aided design. Case studies.

EMC 3103 THERMODYNAMICS II (4)
PR: EGN 3343. Mass and energy balances on steady and unsteady state systems with and without chemical reactions. Combustion processes, power and refrigeration cycles.

EMC 3117 TRANSPORT PROCESSES I (3)
PR: EGN 3343. Principles of momentum, and heat transfer. Boundary layer theory and pipe flow. Emphasis given to pumping and metering of compressible and incompressible fluids. Selection of proper fluid handling equipment to satisfy realistic process demands.

EMC 3301 INSTRUMENT SYSTEMS (4)

EMC 3303 CHEMICAL AND MECHANICAL ENGINEERING LABORATORY I (2)

EMC 4104 PHASE & CHEMICAL EQUILIBRIA (3)
PR: EMC 3103 or CHM 4110. Correlation of Thermodynamics properties of real systems and solutions. Description of multicomponent, multiphase systems in equilibrium. Applications to separation process and reactor design.

EMC 4112 ELECTRONIC EQUIPMENT COOLING (2)
PR: EGN 3374 or CI. Analysis of extended surfaces. Printed circuit board thermal analysis. Free and forced convection as applied to electrical and electronic components. Thermo-electric cooling and performance of cold plate heat exchangers.

EMC 4118 TRANSPORT PROCESSES II (3)

EMC 4311L CONTROLS LABORATORY (1)
PR: EGN 3433. CR: EMC 4314. Familiarization with and performance testing of automatic control systems.

EMC 4314 AUTOMATIC CONTROLS I (3)
PR: EGN 3433, EMC 3103, EMC 4118; CR: EMC 4111. Analysis of devices for measurement and control and factors affecting process dynamics. Block diagram representation of control systems. Modes of control for single loops and stability requirements.

EMC 4411 COMPUTER SIMULATION I (2)
PR: EGN 3433. The use of computers to study the dynamic behavior of chemical and mechanical engineering processes.

EMC 4522L CHEMICAL AND MECHANICAL ENGINEERING LABORATORY II (2)
PR: EMC 3303L. Continuation of EMC 3303L with emphasis on material and energy balances of chemical and chemical systems and processes. Lec.-Lab. The Transport-Lab-Time Approach.

EMC 4905 INDEPENDENT STUDY (1-4)
PR: CI. Specialized independent study determined by the student's needs and interests. May be repeated up to 15 credit hours.

EMC 4930 SPECIAL TOPICS IN CHEMICAL AND MECHANICAL ENGINEERING I (1-4)
PR: CC.

EMC 4931 SPECIAL TOPICS IN CHEMICAL AND MECHANICAL ENGINEERING II (1-4)
PR: CC.

EMC 5107 INDUSTRIAL ENERGY CONSERVATION (3)

EMC 5115 PROCESS HEAT TRANSFER (3)
PR: EMC 4118. Selection and sizing of common process heat transfer equipment. Single and multiple convection in shell and tube, flat plate and spiral plate exchangers. Combined heat and mass transfer in partial condensers, spray dryers and cooling towers.

EMC 5129C TRANSPORT PHENOMENA PROJECTS (3)
PR: CI. Design, evaluation and feasibility study projects in transport phenomena. Content varies each term. May be repeated.

EMC 5191C HEAT TRANSFER PROJECTS (3)
PR: CI. Industrial design projects in the heat transfer field. Varies each term. May be repeated once for credit.

EMC 5305 INSTRUMENTAL ANALYSIS (3)
PR: CHM 2047, PHY 3042. This course deals with sophisticated instrumental techniques for chemical analysis. Emphasis is placed on the physical basis of the instrument and its design.

EMC 5315 MACHINE CONTROL SYSTEMS (3)
PR: EMC 4314 or CI. Machine control system components and their effects on closed loop system performance. Transfer characteristics of hydraulic, pneumatic and electrical elements and processes.

EMC 5510 MOTOR SELECTION AND CONTROL (3)
PR: EGN 3373, EGN 3433. Standard electrical voltages; power wiring in industrial plants; NEMA motor designs; techniques for estimating motor starting times and temperature rise; motor selection; starting and operating safety interlocks; conventional motor starting and control systems; direct digital (programmable) controls; electrical code requirements for conductors and protective devices.

EMC 5591C ENERGY CONVERSION PROJECTS (3)
PR: CI. Design projects in the area of energy conversion. Content varies each term.

EMC 5930 SPECIAL TOPICS III (1-4)
PR: CC.
EML 3264 KINEMATICS (3)  
PR: CC.

EML 3264 KINEMATICS and DYNAMICS (3)  
PR: MAC 3282, PHY 3040. Plane and angular motion; determination of velocities and accelerations in mechanisms. Rolling and sliding contact pairs, cams, gears. Familiarization with computer techniques.

EML 3500 MACHINE ANALYSIS AND DESIGN I (3)  
PR: EGN 3313. Stress and deflection analysis of machine parts, variable loads, endurance limits, fasteners, bearings, power transmission, code consideration of pressure and vacuum vessels, elements of design.

EML 4106C THERMAL SYSTEMS AND ECONOMICS (3)  
PR: EMC 3103. Power and Refrigeration Cycles; Solar Cells; Fuel Cells; Magnetohydrodynamics; Nuclear Energy; Internal Combustion Engines; Fuels; Methods of Economic Comparison.

EML 4260C DYNAMICS OF MACHINERY I (3)  
PR: EML 3264. Static forces and inertia forces in machines, flywheels, balancing rotating masses, balancing reciprocating masses, gyroscopic effects, mathematical analysis of lumped parameter mechanical systems.

EML 4503 MACHINE ANALYSIS AND DESIGN II (3)  
PR: EML 3500, EML 3264. Continuation of EML 3500. Antifriction bearings, journal bearings, transmission, shafting.

EML 4513 POWER PLAN ANALYSIS AND DESIGN (3)  
PR: EMC 3103, EMC 3117. Basic considerations of power plant design and equipment selection. Fuels, combustion, steam generator design. Reheat-Regeneration cycles; Energy transfer, and fluid flow to sizing of HVAC systems, Heating and ventilation systems.

EML 4536 CAD-YACHT DESIGN (3)  
PR: CI. Fundamentals of small craft design using computer-aided design techniques. Emphasis is on sailing yachts with some material included on design of commercial sail vessels and pleasure and commercial power craft. Class is taught in a microcomputer-equipped laboratory.

EML 4551C PROJECT DESIGN I (3)  
PR: Senior standing in mechanical engineering or CI. Comprehensive design or feasibility project requiring application of previously acquired engineering knowledge.

EML 4552C PROJECT DESIGN II (3)  
PR: EML 4509 or CI. Comprehensive design or feasibility study project. In some cases may be a continuation of EML 4509.

EML 4601 REFRIGERATION AND AIR CONDITIONING (3)  

EML 5241 LUBRICATION (3)  
PR: EML 4503 or CI. The theoretical basis for lubrication and bearing theory. The study of lubrication requirements of different machine types. Introduction to gas bearings.

EML 5504 MECHANICAL DESIGN OF PROCESS EQUIPMENT (3)  
PR: EML 3500. Design of thin wall pressure vessels, ASME codes, flanges, joints, gasketed surfaces, and foundations.

EML 5509 PROJECT DESIGN III (2)  
PR: CC. Coordination of previously acquired mechanical design experiences with a creative design project... Lab.

EML 5528 ANALYSIS METHODS FOR MECHANICAL DESIGN (2)  
PR: EML 4503, or CI. Treatment of stress, strain and strengths aspects of machine design. Application of failure theories, residual stresses and energy principles to machine elements.

EML 5537 CAD-NAVAL ARCHITECTURE I (3)  
PR: EML 3500, EML 4503 or CI. Fundamentals of naval architecture for small ships and boats, pleasure and commercial, sail and power using computer-aided design techniques. Includes computer-aided stress analysis. A design project is required.

EML 5538 CAD-NAVAL ARCHITECTURE II (3)  
PR: EML 3500, EML 4503 or CI. Fundamentals of naval architecture for small ships and boats, pleasure and commercial, sail and power using computer-aided design techniques. Includes computer-aided stress analysis. A design project is required.

EML 5539 SPECIAL TOPICS IV (1-4)  
PR: CC.

CIVIL ENGINEERING AND MECHANICS

CES 3400 DESIGN AND PRACTICES (2)  
PR: EGN 3354C, EGN 3365L, EGN 3331 Methodology of the design process in civil engineering. Includes problem definition, criteria, data collection and analysis, information sources, planning, specifications, and presentation of technical information.

CES 3402 CIVIL ENGINEERING LABORATORY (1)  
PR: CES 4001, EGN 3331, EGN 3354C, EGN 3365L. A laboratory experience in departmental facilities including the subject areas of structures, materials, fluids, transportation, soils, engineering mechanics and environmental engineering.

CES 4001 STRUCTURES I (3)  
PR: EGN 3331. Analysis of simple structural systems, both determinate and indeterminate. Introduction to the use of energy methods in indeterminate structures.

CES 4002 MATRIX STRUCTURAL ANALYSIS (3)  

CES 4004 COMPUTER AIDED STRUCTURAL DESIGN (2)  
PR: CES 4002. Computer aided structural analysis and design using existing finite element program, static dynamic loading.

CES 4104 ADVANCED MECHANICS OF MATERIALS (3)  
PR: EGN 3331, MAP 3402. Analytical analysis of the mechanical behavior of deformable solids; special topics in beam theory, elastic and inelastic methods, plastic limit analysis flexure and torsion of beams; introduction to finite element computer methods.

CES 4208 STRUCTURAL DYNAMICS (3)  
PR: CES 4001, EGN 4450. Behavior of structural components and systems when subjected to periodic dynamic loads.

CES 4403 HYDRAULIC DESIGN (2)  
PR: EGM 4816, ENV 4622. Design of hydraulic systems, including drainage, water supply, and flood control.

CES 4404 FLUID SYSTEMS DESIGN (2)  
PR: EGM 4816. Practical applications and design of systems using the principles of fluid mechanics. Various topics.

CES 4502 STRUCTURAL DESIGN STEEL (2)  
PR: CES 4605. Design of structures made of steel.

CES 4605 CONCEPTS OF STEEL DESIGN (3)  
PR: CES 4001. Introduction to steel design and AISC Manual of Steel Construction. Design of tension members; compression members; beams; beam columns; and bolted, welded, and riveted connections.

CES 4700 CEMENT AND CONCRETE DESIGN (2)  
PR: EGN 3365L, 3365. Classification and production of cements. Design and testing of concrete mixes to produce desired properties.

CES 4702 CONCEPTS OF CONCRETE DESIGN (3)  
PR: CES 4001. Introduction to concrete design and the ACI Building Code Requirements for Reinforced Concrete. Design of flexural reinforcement in beams and slabs, design of shear reinforcement, design of concrete columns.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CES 4704</td>
<td>STRUCTURAL DESIGN-CONCRETE</td>
<td>PR: CES 4702</td>
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<tr>
<td>CES 4911</td>
<td>SENIOR PROJECT</td>
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<tr>
<td>CES 4933</td>
<td>SPECIAL TOPICS IN CIVIL ENGINEERING AND MECHANICS</td>
<td>PR: CL.</td>
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<tr>
<td>CES 5508</td>
<td>ADVANCED STRUCTURAL DESIGN I</td>
<td>PR: CES 4002, CES 4501</td>
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<td>ADVANCED STRUCTURAL DESIGN II</td>
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<tr>
<td>EAS 4121</td>
<td>HYDRO AND AEROMECHANICS</td>
<td>PR: EGN 3354, MAP 4302</td>
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<tr>
<td>EAS 5100</td>
<td>AERODYNAMICS</td>
<td>PR: EGN 4355, and Cl.</td>
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<tr>
<td>ECI 4311</td>
<td>SOIL MECHANICS I</td>
<td>PR: EGN 3354, MAP 4302</td>
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<td>ECI 4312</td>
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<td>ECI 4640</td>
<td>GEOTECHNICAL DESIGN</td>
<td>PR: ECI 4311</td>
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<td>ECI 4911</td>
<td>RESEARCH IN CIVIL ENGINEERING AND MECHANICS</td>
<td>PR: Cl.</td>
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<tr>
<td>ECI 5326</td>
<td>FOUNDATION ENGINEERING</td>
<td>PR: ECI 4311</td>
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<tr>
<td>ECI 5335L</td>
<td>LABORATORY TESTING FOR GEOTECHNICAL ENGG.</td>
<td>PR: ECI 4311 or Cl.</td>
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<td>EES 5203</td>
<td>WATER QUALITY FOR ENGG. I</td>
<td>PR: Cl.</td>
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<tr>
<td>EGM 4430</td>
<td>SHOCK AND VIBRATIONS</td>
<td>PR: EGN 332L, MAP 4302</td>
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<tr>
<td>EGM 4816</td>
<td>HYDRAULICS</td>
<td>PR: EGN 3354C</td>
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<tr>
<td>EGM 5352</td>
<td>FINITE ELEMENT METHODS I</td>
<td>PR: Cl.</td>
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<tr>
<td>EGM 5562</td>
<td>MECHANICS OF COMPOSITE MATERIALS</td>
<td>PR: Cl.</td>
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**Engineering**

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<td>EMA 4324</td>
<td>CORROSION OF ENGINEERING MATERIALS</td>
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<td>EMA 4324L</td>
<td>CORROSION LABORATORY</td>
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<td>EMA 4604</td>
<td>PROCESSES IN MATERIALS</td>
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<td>EMA 4703</td>
<td>CONCEPTS OF ENGINEERING</td>
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<td>EMA 4905</td>
<td>INDEPENDENT STUDY</td>
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<td>EMA 5644</td>
<td>ENGINEERING CERAMICS</td>
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<td>ENV 3001</td>
<td>ENVIRONMENTAL ENGINEERING</td>
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<td>ENV 4011</td>
<td>PROCESS DESIGN LABORATORY</td>
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<td>ENV 4012</td>
<td>ENVIRONMENTAL UNIT PROCESSES</td>
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<tr>
<td>ENV 4014</td>
<td>ENVIRONMENTAL UNIT OPERATIONS</td>
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</tbody>
</table>

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**Prerequisites**

- Cl. Design of concrete structures.
- Cl. Problem-solving experience and training for seniors in research and/or design projects. Written final reports are required.
- Cl. New technical topics of interest to civil engineering students.
- A study of design of complicated structural systems such as curved bridges, orthotropic bridges, tall buildings, towers, suspension structures.
- A study of design of complicated structural systems such as curved bridges, orthotropic bridges, tall buildings, towers, suspension structures.
- May be repeated up to 6 credit hours.
- An introduction to the form, structure, and chemical activities of the important processes which are essential to treatment of domestic and industrial wastewater.
- Response of mechanical systems to shock excitation, vibration of discrete and continuous bodies.
- Finite element methods in continuum mechanics with applications to solid and fluid mechanics problems.
- Physical and mathematical model is for composites. Response to thermal, electrical and mechanical loading. Special composite systems and shapes, filamentary plates, shells, isocurves.
- Principles of Chemical Thermodynamics as applied to the interactions of materials with various gaseous, aqueous and solid phase environments.
- Principles of electrochemical corrosion and the representation of corrosion processes by polarization diagrams. Origin and prevention of the localized forms of corrosion and approaches to corrosion control.
- Experimental potentiostatic and galvanostatic polarization studies related to various corrosion phenomena.
- Principles of fracture mechanics and fatigue. Damage to materials produced by various environmental conditions including elevated temperatures and radiation.
- Determination of the property requirements for the utilization of materials in specific applications, comparison of properties of metals, plastics, and ceramics, the effect of heat treatment, etc., on materials, property limitations.
- Design of corrosion prevention systems and prediction of the behavior of materials in various corrosive environments.
- Introduction to the basic theories of solidification and ultrapurification of materials, and discussion of the primary methods of shaping and forming materials.
- Concepts of engineering materials.
- Examination of the materials of ceramic engineering and the engineering properties of advanced ceramic products.
- An introduction to various aspects of environmental problems faced by today's society. Readings and discussions are conducted concerning air pollution, water pollution, noise pollution, solid waste management, ionizing radiation, disease transmission, and food protection, with regard to aesthetic, legal, economic, technical, and political constraints. This course is acceptable as an Engineering Social Science and Humanities Elective and is open to non-engineering students.
- Experimental work of the theory and design practices learned in Unit Operations and Unit Processes lecture courses. It provides the student familiarity with the development of bench and pilot plant processes and operations used in environmental engineering.
- The theory and design of unit processes normally used in environmental engineering such as coagulation of colloidal materials, water stabilization, water softening and neutralization, ion exchange, adsorption and oxidation processes for removal of iron and magnesium.
- The theory and the design of unit operations normally used in the practice of environmental engineering, such as agitation and mixing of liquids, filtration,
leaching, gas absorption, sedimentation and clarification, drying, and evaporation.

**ENV 4111 AIR POLLUTION CONTROL (3)**
PR: EGN 3354C. Behavior and effects of atmospheric contaminants and the principles of making measurements in the air environment. Basic concepts of meteorology and control technology are discussed. Regulatory aspects and air pollution standards are covered.

**ENV 4402 ENVIRONMENTAL ENGINEERING LABORATORY (1)**
PR: ENV 4417. Laboratory experience in the measuring of environmental parameters.

**ENV 4417 WATER QUALITY AND TREATMENT (3)**
PR: EGM 4816. An introduction to municipal water supply and waste water treatment. Topics include water requirements and waste volumes, water quality, physical and chemical treatment processes, and advanced wastewater treatment processes.

**ENV 4432 WATER SYSTEMS DESIGN (2)**
PR: EGN 3354C. A design oriented course which utilizes the theory obtained in the Unit Operations course to design both industrial and domestic water treatment and water transport systems. It emphasizes the design procedures normally used in engineering practice.

**ENV 4504 WASTE WATER SYSTEMS DESIGN (2)**
PR: ENV 4012. Emphasis is placed upon design practice and economics for a comprehensive design of a waste water system and a collection system.

**ENV 4622 WATER RESOURCES ENGINEERING (3)**
PR: EGM 4816. A study of the engineering principles involved in sustaining and managing the quantity and quality of water available for human activities with particular emphasis on surface water and ground water hydrology.

**ENV 5127 AIR RESOURCE MANAGEMENT (3)**
PR: CL. Air pollution source impacts on ambient air quality, modeling, regulatory approaches, source strategic controls and surveillance.

**ENV 5357 SOLID AND HAZARDOUS WASTE CONTROL (3)**
PR: CL. Treatment practices and design of waste handling systems to include: land treatment, pre-treatment, incineration, resource recovery, recycle, waste elimination.

**ENV 5439 URBAN WATER TREATMENT THEORY AND DESIGN (3)**
PR: ENV 4417 and CL. A study of the theory of water treatment and the relation of theory to analysis and design practice. Emphasis is given to processes. The course is devoted to the design and analysis of specific water treatment facilities.

**ENV 5539 URBAN WASTEWATER TREATMENT THEORY AND DESIGN (3)**
PR: ENV 4417, CL. A study of the theory of wastewater and the relation of theory to analysis and design practice. Emphasis is given to unit processes. The course is devoted to the design and analysis of specific wastewater treatment works.

**ENV 5614 ENVIRONMENTAL RISK ANALYSIS (3)**
PR: CL. Study of comprehensive application of risk analysis techniques for environmental control and protection purposes.

**SUR 3140C ENGINEERING LAND SURVEYING (3)**
PR: MAP 4302. Introduction to transportation engineering, including urban transportation planning, traffic control and highway design.

**TTE 4006 TRANSPORTATION ENGINEERING II (3)**
PR: TTE 4004. The planning and design of transportation systems.

**TTE 4721 TRANSPORTATION SYSTEMS DESIGN (2)**
PR: TTE 4004. Design of transportation systems, including airports, highways, mass transit systems, etc.

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**COMPUTER SCIENCE & ENGINEERING 179**

**DUCE AND STUDY INTELLIGENT BEHAVIOR. ORGANIZING KNOWLEDGE, EXPLOITING CONSTRAINTS, SEARCHING SPACES, UNDERSTANDING NATURAL LANGUAGES, PROBLEM-SOLVING STRATEGIES, ETC.**

**CDA 4101 COMPUTER ORGANIZATION AND ARCHITECTURE (3)**
PR: EEL 4705, or CC. CR: CDA 4171. Elements of computer systems; processors, memories and switches. Register transfer presentation of a computer. ALUs and their implementation. The control unit. Memory and I/O. Hardware support of operation system functions.

**CDA 4171 MINICOMPUTER LABORATORY (1)**

**CDA 4905 INDEPENDENT STUDY IN COMPUTER SCIENCE (1-5)**
PR: CL. Specialized independent study determined by the needs and interests of the student. May be repeated up to 10 credit hours. (S/U only)

**CDA 5225 MODELING COMPUTER SYSTEM PERFORMANCE I (3)**

**CDA 5226 MODELING COMPUTER SYSTEM PERFORMANCE II (3)**

**CIS 4321 DATA PROCESSING APPLICATIONS (3)**
PR: EEL 4850C, EEL 4851C. An introduction to principles of information processing and applications. Fundamentals of systems for management and control.

**CIS 4425 INFORMATION ENGINEERING AND APPLIED SYSTEMS TECHNOLOGIES (3)**
PR: COP 4400. The principles of information engineering using current and emerging computer systems technologies and information theory will be presented and applied. This would include pc-main frame links, local-area/wide-area networks, advanced generation integrated software facilities and artificial intelligence/knowledge based systems.

**CIS 4911 COMPUTER SCIENCE PROJECT (2)**
Projects intended to develop individual interests and abilities in computer science involving either computer hardware or software aspects of a well defined proposal.

**COC 2400 COMPUTERS AND SOCIETY -6A (3)**
This computer literacy course covers the fundamentals of hardware, software, and programming languages, presents a broad overview of data processing concepts, problems and applications for students with little or no computing background. (For non-engineering majors only.)

**COC 4935 SPECIAL TOPICS IN COMPUTER SCIENCE (1-4)**
PR: CC.

**COC 4939 COMPUTER SCIENCE AND ENGINEERING SEMINAR (2)**
PR: CC. This is a seminar course for majors in Computer Science and Engineering. May be repeated up to 4 credit hours.

**COP 2170 PROGRAMMING IN BASIC (CAI) (1)**
Laboratory course in theory and applications of BASIC interactive programming language using a minicomputer and CAI instruction.

**COP 3150 PROGRAMMING IN APL (CAI) (2)**
PR: MAC 1104, MAC 1114. Laboratory course in fundamental theory and applications of APL programming language using a minicomputer and CAI learning technique.

**COP 3510 INTRODUCTION TO COMPUTER SCIENCE (3)**
PR: EGN 2210. CR: COP 3510L. Introduction to the concepts of algorithmic formulation of problems for computer solution and the general abstract operations used in these formulations.
COP 3510L COMPUTER SCIENCE LABORATORY (1)
CR: COP 3510. Laboratory for implementation of algorithms in a general purpose computer language.

COP 4400 COMPUTER SYSTEMS (3)
PR: COP 3510, COP 3510L, and MAC 3283 or CC. Principles of computer organization, machine and assembly language programming.

COP 4502 COMPARISON OF PROGRAMMING LANGUAGES (3)
PR: EEL 4850C, EEL 4851C. A comparative study of procedural and nonprocedural computer languages, emphasizing the fundamental differences in information binding, string and data structures manipulation, control and I/O structures in different languages.

COP 4550 PROGRAMMING LANGUAGES (3)
PR: EEL 4851C and COP 4400. An introduction to programming languages, survey of language types and design of translators and interpreters.

COP 4620 INTRODUCTION TO SYSTEMS PROGRAMMING (3)
PR: EEL 4851C, COP 4400. Introduction to systems programming. Design of operating systems. Concurrent processing, synchronization, and storage management policies.

COP 5001 TOPICS IN COMPUTERS AND PROGRAMMING (4)
PR: CC. Survey of topics in machine organization systems programming, and data structures.

COP 3001 INTRODUCTION TO DISCRETE STRUCTURES (3)
PR: MAC 3281 or equivalent. Introduction to set algebra, propositional calculus and finite algebraic structures as they apply to computer systems.

COT 4125 INTRODUCTION TO AUTOMATA THEORY AND FORMAL LANGUAGES (3)
PR: EEL 4851C, COT 3001, or CC. Introduction to the theory and application of various types of computing devices and the languages they recognize.

COT 4130 SEQUENTIAL CIRCUITS (3)

COT 4300 ANALYSIS OF ALGORITHMS (3)
PR: EEL 4851C and COT 3001. Design principles and analysis techniques applicable to various classes of computer algorithms frequently used in practice.

COT 5002 FUNCTIONAL PROGRAMMING LANGUAGES (3)
PR: COP 4550. The properties of functional and applicative languages; comparison with conventional languages, features and examples of applicative languages, LISP, KRC AND Forth. Implications to computer architecture.

EEL 4705 LOGIC DESIGN (3)
PR: EGN 3373, CR: EEL 4705L or CC; for CS & E students CR or PR: COP 3510. Binary number systems; truth functions; Boolean algebra; canonical forms; minimization of combinational logic circuits; synchronous logic circuits in computers.

EEL 4705L LOGIC LABORATORY (1)
CR: EEL 4705.

EEL 4706 TESTING AND FAULT TOLERANCE IN DIGITAL SYSTEMS (3)
PR: COP 4400, COT 4130, or CC. Test generation for combinational and sequential digital circuits, fault analysis and diagnosis. Methods for reliability improvement through fault tolerant and testable circuit design. Introduction to software reliability.

EEL 4743L MICROPROCESSOR LABORATORY (1)
CR: EEL 4757. Laboratory for Microprocessor use and evaluation.

EEL 4757 MICROPROCESSOR PRINCIPLES AND APPLICATIONS (3)

EEL 4758 MICROPROCESSOR-BASED SYSTEM DESIGN AND APPLICATION (3)
PR: EEL 4757, EEL 4743L. Study of techniques for design of microprocessor-based systems used in various applications. Includes project on development of an experimental application system.

EEL 4850C PROGRAMMING METHODOLOGY (3)
PR: Senior standing in Computer Science or CC. COP 3510. Methods of designing and developing effective and efficient computer programs. Top-down design, structured programming, debugging and program analysis are addressed.

EEL 4851C DATA STRUCTURES (3)
PR: COP 3510. Fundamentals of data organization for purposes of program efficiency, clarity and simplicity will be addressed.

EEL 4852C DATA BASE SYSTEMS (3)
PR: COP 4400 and EEL 4851C. Fundamentals of data base management systems. CODASYL, network, hierarchical, and relational data base systems are analyzed, and typical applications are presented.

EEL 4853C DISTRIBUTED PROCESSING AND COMPUTER NETWORKS (3)
PR: COP 4620, CDA 4101. Design and analysis of distributed processing systems. Covers communication hardware and software, network operating systems, and reliability enhancement techniques.

EEL 5771 INTRODUCTION TO COMPUTER GRAPHICS I (3)
PR: CC. An introduction to the evolution of computer graphics including point-plotting, line drawing, two-dimensional transformations and graphics software packages.

ELECTRICAL ENGINEERING

EEL 3100 NETWORK ANALYSIS AND DESIGN (3)

EEL 3302 ELECTRONICS I (3)
PR: EGN 3373. A course in the physical principles of electronic devices with emphasis on semi-conductor electronics. Includes the analysis and design of amplifiers and switching circuits.

EEL 3410, 4411 FIELDS AND WAVES I, II (3,3)
PR: MAP 4302, PHY 3041, PHY 3041L. A basic introduction to electromagnetic field theory, including static and dynamic electromagnetic fields.

EEL 4102 LINEAR SYSTEMS ANALYSIS (3)
PR: EEL 3100. Provides further study in the analysis of linear networks and systems. Includes time and frequency domain points of view. Laplace, Fourier and superposition integrals.

EEL 4108 DISTRIBUTED NETWORKS (3)
PR: EEL 3410, EEL 3100. Transmission lines, standing waves, impedance, waveguides.

EEL 4163 COMPUTER AIDED DESIGN AND ANALYSIS (2)
PR: EEL 3302. The emphasis is upon applications and how to use the major CADA programs as effective tools to solve a wide variety of engineering problems. The coverage includes solid state design, systems analysis, digital logic, transfer function solutions and concludes with a brief look at thermal and mechanical systems analysis. The programs used include SUPER*SCRETE, SPICE 2, NASA and others.

EEL 4220, 4222 ELECTROMECHANICS I, II (3,3)

EEL 4300 ELECTRONICS II (3)
PR: EEL 3302. Provides further study in electronic circuits. Includes oscillator, modulator, and detector analysis and design.

EEL 4330 MICROELECTRONICS ENGINEERING (3)
EEL 4351C SEMICONDUCTOR DEVICES (3)
PR: EEL 3302. An introduction to the fundamentals of semiconductor materials and semiconductor device operation.

EEL 4411 See EEL 3410

EEL 4511 COMMUNICATION ENGINEERING (2)
PR: EEL 4300. System considerations of electronic circuits; radio propagation; antennas; transmitters and receivers.

EEL 451L COMMUNICATIONS LABORATORY (1)
CR: EEL 451I. Experiments in amplitude modulation, frequency modulation, pulse communications, and data transmission.

EEL 4512 INTRODUCTION TO COMMUNICATION SYSTEMS (3)
PR: EEL 3100. Signals and Fourier transforms in communication systems; measure of information in signals. AM, FM, and PM modulation and demodulation systems. Sampling, quantization and PCM. Data communication; terminals, and modems: repeaters, timing circuits, and interfaces. Local networks. May not be repeated.

EEL 4567 ELECTRO-OPTICS (2)
PR: EEL 3301L, EEL 3302L, and Fields and Waves I, EEL 3410. An introduction to the emerging field of electro-optics, including visible and infra-red sources and detectors, radiometry, optical and electronic components, and fiber optics.

EEL 4567L ELECTRO-OPTICS LABORATORY (1)

EEL 4566 LINEAR CONTROL SYSTEMS (3)

EEL 4703 LOGIC DESIGN (3)

EEL 4905 INDEPENDENT STUDY (1-5)
PR: CI. Specialized independent study determined by the student's needs and interests. May be repeated up to 15 credit hours. (S/U only.)

EEL 4906 DESIGN PROJECT (2)
PR: Senior standing. An individual or team project involving the design of an electrical component system. Required of all electrical seniors.

EEL 4935, 4936, 4937 SPECIAL ELECTRICAL TOPICS I, II, III (1-4 each)
PR: CC.

EEL 5250 POWER SYSTEMS ANALYSIS (2)
PR: CC. Analysis techniques for AC power systems.

EEL 5253 COMPUTER ANALYSIS OF POWER SYSTEMS (2)
PR: CC. Review of Fortran programming, matrix algebra, network formulation, short circuit studies, simulation of algebraic equations, load flow studies, numerical solution of differential equations, transient stability studies. Strong emphasis on techniques adaptable to digital computer studies, programs will be written and run on the IBM 360/65.

EEL 5367 PULSE CIRCUIT PRINCIPLES (2)
PR: EEL 4302, EEL 4300. An introduction to the analysis and design of pulse and timing circuits with applications.

EEL 5388 LOW NOISE ELECTRICAL CIRCUITS (3)
PR: EEL 3302. Noise sources, circuit noise representations, noise in diodes, bipolar transistors, field-effect transistors and sensors, low noise circuit design and noise measurements.

EEL 5435 UHF PRINCIPLES (2)
PR: EEL 4102, EEL 4300, EEL 4411. A study of tubes, devices, and circuits peculiar to systems which operate at ultra high and super high frequencies.

EEL 5435L UHF LABORATORY (1)
CR: EEL 5435.
# COLLEGE OF ENGINEERING

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<tr>
<td>ETI 4600</td>
<td>INTRODUCTION TO INDUSTRIAL SYSTEMS</td>
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<td>EIN 4614</td>
<td>PRINCIPLES OF INDUSTRIAL OPERATIONS I</td>
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<tr>
<td>EIN 4661</td>
<td>PRINCIPLES OF INDUSTRIAL OPERATIONS II</td>
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**INDUSTRIAL AND MANAGEMENT SYSTEMS**

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<tr>
<td>EIN 4251C</td>
<td>AUTOMATION AND ROBOTICS</td>
<td>3</td>
</tr>
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<td>EIN 4312L</td>
<td>PRODUCTION DESIGN I</td>
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<td>EIN 4313L</td>
<td>HUMAN FACTORS DESIGN</td>
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<td>EIN 4334</td>
<td>PRODUCTION CONTROL I</td>
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<td>EIN 4352</td>
<td>ENGINEERING ECONOMY II</td>
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<tr>
<td>EIN 4364L</td>
<td>PLANT FACILITIES DESIGN</td>
<td>3</td>
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<tr>
<td>EIN 4395L</td>
<td>MANUFACTURING PROCESSES</td>
<td>3</td>
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<tr>
<td>EIN 510C</td>
<td>ARBITRATION OF INDUSTRIAL ENGINEERING</td>
<td>3</td>
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<tr>
<td>EIN 5218</td>
<td>HAZARDS CONTROL ENGINEERING</td>
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**Industrial and Management Systems**

- EIN 4251C AUTOMATION AND ROBOTICS: Introduction to the applications of automation as applied to material handling, inventory storage, material transfer, industrial processes and quality control. Economic justification of automated activities.
- EIN 4312L PRODUCTION DESIGN I: Design analysis and work design, work measurement, standard data, ergonomics, and labor relations.
- EIN 4313L HUMAN FACTORS DESIGN: Design of man-machine systems, by taking into consideration both human and machine capabilities and limitations.
- EIN 4334 PRODUCTION CONTROL I: Design and use of inventory control models, both deterministic and probabilistic. Analysis of resource requirements.
- EIN 4352 ENGINEERING ECONOMY II: Analysis of economic limitations on engineering projects. Income tax considerations, replacement models, MAPF, and obsolescence.
- EIN 4364L PLANT FACILITIES DESIGN: Design and modification of industrial production and material handling facilities. Basic analysis techniques, use of computer programs, automated warehousing.
- EIN 4395L MANUFACTURING PROCESSES: The study of basic manufacturing processes. CAD / CAM and precision assembly.
- EIN 510C ARBITRATION OF INDUSTRIAL ENGINEERING DISPUTES: Case studies in the arbitration of technical disputes involving job evaluation and classification, labor standards, wage incentives, crew size, etc.
- EIN 5218 HAZARDS CONTROL ENGINEERING: Senior or graduate status. Open to non-majors. Nature of industrial accidents. Practices, standards, OSHA, and other governmental requirements for reducing accident frequency and severity in the industrial environment. Design measures for the prevention of health impairment due to non-accidental causes.

**Other Courses**

- EIN 5245 WORK PHYSIOLOGY AND BIOMECHANICS: PR: EIN 4314 or equivalent. A study of the human physiological limitations encountered in the design, analysis and evaluation of man-machine systems.
- EIN 5253 HUMAN PROBLEMS IN AUTOMATION: The analysis of combined human operations, automated processes, and robotics in industrial environments.
- EIN 5301C INDUSTRIAL ENGINEERING CONCEPTS: PR: CC. Survey of industrial and management engineering methodology. Work measurement, methods, production and inventory control, and facility design.
- EIN 5303 ENGINEERING VALUE ANALYSIS: PR: EIN 4352 or equivalent. Statistical models for analyzing engineering alternatives from an economic viewpoint. The use of advanced engineering economy concepts in solving industrial problems.
- EIN 5381C LOGISTICS ENGINEERING: PR: EIN 3443 or equivalent. Principles and practices of Logistics Engineering are covered. System requirements, logistics support analysis, test and evaluation are considered.
- EIN 5389 FORECASTING: Introduction to forecasting techniques used to plan and schedule production and inventory control functions. Smoothing and decomposition time-series methods, regression methods, and autoregressive/ moving average methods are presented. Integrating forecasting and planning into the engineering organization is discussed.
- EIN 5914, 5915, 5916 SPECIAL INDUSTRIAL PROJECTS I, II, III: (1-3 each) PR: CC.
- ESI 4244 DESIGN OF EXPERIMENTS I: PR: EIN 3443 or equivalent. Activity forecasting models and control. Design and use of inventory control models, both designs applicable to engineering analyses. Analysis of variance and regression.
- ESI 4314 OPERATIONS RESEARCH I: PR: EIN 4450. An introduction to operations research techniques with particular emphasis on deterministic models. Linear programming, dynamic programming, goal programming, integer programming, and PERT/CPM networks are considered.
- ESI 4315 OPERATIONS RESEARCH II: PR: EIN 3443, ESI 4314. A continuation of ESI 4314 with emphasis given to probabilistic models in Operations Research. Discrete and continuous time processes, queuing models, inventory models, simulation models, Markovian decision process and decision analysis.
- ESI 4521 INDUSTRIAL SYSTEMS SIMULATION: PR: ESI 4315. A study of the development and analysis of computer simulation models: Monte Carlo, time-slice, and next-event. Introduction to special purpose simulation languages.
- ESI 4573 NUMERICAL METHODS: PR: EIN 2210, one calculus course or CI. Numerical algorithms and methods for applications to engineering problems. Applications using FORTRAN language.
### COMPUTER SERVICE COURSES

(No credit for Engineering Majors)

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<tr>
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### Non-Engineering Majors

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ARH 3000 INTRODUCTION TO ART -6A
An expanded introductory treatment of basic concepts. For art majors and non-art majors.

ARH 4120 PREHISTORIC AND ANCIENT ART
A comprehensive study of Paleolithic, Neolithic, Egyptian, Assyrian and Mesopotamian painting, sculpture and architecture.

ARH 4170 GREEK AND ROMAN ART
A comprehensive study of Aegean, Mycenaean, Etruscan, Greek and Roman painting, sculpture and architecture.

ARH 4200 MEDIEVAL ART
A comprehensive study of early Christian, Byzantine and Medieval painting, sculpture, architecture and manuscript illumination.

ARH 4301 RENAISSANCE ART
A comprehensive study of Renaissance and Mannerist painting, sculpture and architecture in Italy and Northern Europe.

ARH 4350 BAROQUE AND ROCOCO ART
A comprehensive study of the painting, sculpture and architecture in France, Italy, Spain and the Netherlands in the seventeenth and early eighteenth centuries.

ARH 4430 NINETEENTH CENTURY ART
A comprehensive study of nineteenth century painting, sculpture and architecture in France and England.

ARH 4450 TWENTIETH CENTURY ART
A comprehensive study of painting, sculpture and architecture from Cezanne to the present in Europe and the United States. Required of all art majors.

ARH 4530 ORIENTAL ART
An introduction to concepts of the arts of China, Japan and other Far Eastern countries.

ARH 4743 INTRODUCTION TO THE PERSONAL FILM
PR: ART 3630C. Comparison of philosophical and technical distinctions between the personal film and theatrical or commercial releases.

ARH 4790 SELECTED TOPICS IN THE HISTORY OF FILM
In-depth investigation of a selected period, development, or school in the history of film as art. May be repeated.

ARH 4796 CRITICAL STUDIES IN ART HISTORY -6A
PR: CI. Specialized intensive studies in art history. Specific subject matter varies. To be announced at each course offering. May be repeated for different topics only.

ARH 4937 SEMINAR IN THE HISTORY OF ART HISTORY
PR: Four courses in Art History at the 4000 level, CI. An examination of the origins of Art History as a discipline and changing nature of Art History from Vasari to the present.

ARH 5333 CULTURAL AND INTELLECTUAL HISTORY OF RENAISSANCE AND BAROQUE ART
A course in which Renaissance and Baroque theories of art are treated as part of general cultural and intellectual history.

ARH 5451 CULTURAL AND INTELLECTUAL HISTORY OF MODERN ART
A course in which theories of modern artists, and of critics and historians of Modernism are treated as a part of general Culture and Intellectual History.

ARH 5795 METHODS OF ART HISTORY
This course introduces students to various methods which art historians have used to analyze the form and content of individual works of art, and to various modes of historical explanation. Must be taken during the students first two semesters in the program.

ART 2202C VISUAL CONCEPTS I
Studio problems supplemented by reading and discussion. Consideration of spatial organization of the two-dimensional surface.

ART 2203C VISUAL CONCEPTS II
Studio problems supplemented by reading and discussion. Consideration of the three-dimensional organization of space and mass.

ART 3110C CERAMICS I

ART 3301C DRAWING I

ART 3420 CERAMICS II
PR: Visual Concepts I. Introduction to Art and Drawing I. Intermediate problems in lithography with emphasis on the exploration of methods and media and the development of individual concepts.

ART 3470 INTAGLIO I
PR: Visual Concepts I. Introduction to Art and Drawing I. Intermediate problems in intaglio with emphasis on the exploration of methods and media and the development of individual concepts.

ART 3510C PAINTING I

ART 3700C SCULPTURE I
PR: Visual Concepts II and Introduction to Art. Intermediate problems in sculpture with emphasis on the exploration of materials and media and the development of individual concepts.

ART 3935 STUDY OF TECHNIQUES: SELECTED PROJECTS
PR: A course of reading and study in an area of special concern governed by student demand, instructor interest and/or departmental requirements. Registration by contract only. May be repeated for credit for different study areas only.

ART 4111C CERAMICS II
PR: ART 3110C. Continued problems in ceramics. May be repeated.

ART 4320C DRAWING II
PR: ART 3301C. Continued problems in drawing. May be repeated.

ART 4421C LITHOGRAPHY II
PR: ART 3420C. Continued problems in lithography. May be repeated.

ART 4471C INTAGLIO II
PR: ART 3470C. Continued problems in intaglio. May be repeated.

ART 4520C PAINTING II
PR: ART 3510C. Continued problems in painting. May be repeated.

ART 4702C SCULPTURE II
PR: ART 3700C. Continued problems in sculpture. May be repeated.

ART 4900 DIRECTED READING
PR: CI and CC. A course of reading and study in an area of special concern governed by student demand, instructor interest and/or departmental requirements. Registration by contract only. May be repeated for credit for different study areas only.

ART 4905 DIRECTED STUDY
PR: CC. Independent studies in the various areas of Visual Arts. Course of study and credits must be assigned prior to registration.
ART 4935 ART SENIOR SEMINAR (2)
PR: Senior Status. To aid majors to understand, appraise, and perfect their own art and technique through critical and aesthetic judgments of their colleagues. Discussion and critical evaluation. Admission to all 5000 level studio courses by Consent of Instructor.

ART 5125C CERAMICS (4)
PR: ART 411C. Advanced problems in the various ceramic techniques, including throwing and glaze calculation. May be repeated.

ART 5340C DRAWING (4)
PR: ART 4320C. Advanced problems in various drawing techniques. Emphasis on individual creative expression. May be repeated.

ART 5422C LITHOGRAPHY (4)
PR: ART 421C. Advanced problems in various lithographic techniques. Emphasis on individual creative expression. May be repeated.

ART 5472C INTAGLIO (4)
PR: ART 471C. Investigations into more complex intaglio processes including photoengraving and color printing procedures. Emphasis on personal conceptual development in graphic media. May be repeated.

ART 5532C PAINTING (4)
PR: ART 4520C. Advanced problems in various painting techniques. Emphasis on individual creative expression. May be repeated.

ART 5797 GALLERY AND MUSEUM INTERNSHIP (2-6)
By working in Bay area museums or galleries students will become familiar with various museological operations. Internships vary owing to the work at hand in particular museums, but possible areas of work include registration, installation, conservation, writing of grants or museum education. (Students are eligible after completing one semester in the program.) May be repeated up to 8 credit hours. (S/U only)

ART 5910 RESEARCH (1-4)
PR: CC. May be repeated.

ART 5936 STUDIO TECHNIQUES: SELECTED PROJECTS (2)
PR: Visual Concepts I, II and Introduction to Art. The topic-technique-related 3000-4000 level studio sequence and CL. Concentration in specialized technical data and process. May be repeated for credit for different topics only.

PGY 3410C PHOTOGRAPHY I (4)
PR: Visual Concepts I and Introduction to Art. Intermediate problems in photography with emphasis on the exploration of materials and media and the development of individual concepts.

PGY 3510C CINEMATOGRAPHY I (4)
PR: Visual Concepts I and Introduction to Art. Intermediate problems in cinematography with emphasis on the exploration of materials and media and the development of individual concepts.

PGY 4410C PHOTOGRAPHY II (4)
PR: PGY 3410C. Continued problems in photography. May be repeated.

PGY 4520C CINEMATOGRAPHY II (4)
PR: PGY 3510C. Continued problems in cinematography. May be repeated.

PGY 4550C SOUND TECHNIQUES (4)
PR: PGY 3510C. The recording and editing of sound for film. Collaboration with other departments, particularly Music and Theatre, is encouraged. To be taken concurrently with ART 4631C or ART 5642C whenever possible.

PGY 5420C PHOTOGRAPHY (4)
PR: CL. Advanced work in photography and related media leading to development of personal/expressive statements. May be repeated.

PGY 5530C CINEMATOGRAPHY (4)
PR: ART 4631C. Advanced studio work using black and white, color and sound as technical and aesthetic factors in visual, artistic productions. May be repeated.

DANCE

DAA 2000 THEATRE DANCE STYLES (2)
PR: DAA 2100 or DAA 2200, CI. Development of technical skills in social and historical dance forms frequently stylized for use by dance choreographers. Forms to be studied will include polka, clogging, waltz, folk, tap dancing, etc. May be repeated up to 4 credit hours.

DAA 2100 FUNDAMENTALS OF MODERN DANCE I (2)
To acquaint beginning modern dance students with fundamentals of dance vocabulary, movement, rhythm and alignment.

DAA 2160 MODERN DANCE II (3-4)
PR: Admission by audition. Study of principles of modern dance technique. Practical work in exercises and movement phrases, utilizing changing rhythms and dynamics. May be repeated. (Ballet requirement)

DAA 2200 FUNDAMENTALS OF BALLET I (2)
To acquaint beginning ballet dance students with fundamentals of vocabulary, movement, rhythm and alignment.

DAA 2201 BALLET II (3-4)
PR: Admission by audition. Positions and barre exercises. Emphasis on correct alignment of the body and the application of simple step combinations in centre work. The use of ballet vocabulary (French terms). Material is covered almost totally as practical work in class with a few outside projects. Concert and performance attendance required. May be repeated. (Modern requirement)

DAA 2250 FUNDAMENTALS OF JAZZ DANCE (2)
A basic movement course in Jazz Dance involving dance vocabulary, alignment, styles and simple rhythmic movement patterns. May be repeated up to 8 credit hours.

DAA 2704 DANCE IMPROVISATIONS (2)
PR: DAA 2100; DAA 2200; or CI. For majors and non-majors. Exploring various methods of spontaneously creating dance movement in individual and group situations. Structured and unstructured approaches will be explored. May be repeated up to 4 credit hours.

DAA 3060 SPECIALIZED STUDY IN MOVEMENT THEORY AND BODY ALIGNMENT (2)
PR: DAA 2100 or DAA 2200 or CI. Analysis of scientific basis of movement for the dancer through the study of body alignment and movement theories related to theatre dance techniques.

DAA 3161 MODERN DANCE III (3-4)
PR: Admission by audition. Continuation of DAA 2160. Further emphasis on style and phrasing. Work in projecting mood and quality by dancing and rehearsing in more advanced student choreography, leading to performance. Rehearsal hours to be arranged. May be repeated.

DAA 3202 BALLET III (3-4)
PR: Admission by audition. Intensification of barre exercises for the development of strength and form. Most of the ballet steps are introduced. Application of phrasing and movement. Material covered as practical work in class for concerts and performances. Rehearsal hours to be arranged. May be repeated.

DAA 3220 BALLET VARIATIONS (1)
PR: DAA 3202. This course introduces fundamental exercises for the development of pointe technique. Material covered may also be pas de deux, character, and variations. Must be repeated for a total of 4 hours by majors in ballet concentration. May be repeated.

DAA 3480 PERFORMANCE (1)
PR: Admission by audition or CC. Open to all university students proficient in dance techniques. Rehearsal and performance of works presented by the department. May be repeated up to 10 credit hours.

DAA 3502 JAZZ DANCE (2)
PR: Admission by audition, DAA 2201 or 2160. A technique class for the intermediate level dancer to become acquainted with the dance styles and forms of musical theatre and concert jazz dance.
DAA 3503 JAZZ THEATRE DANCE (3)
PR: Admission by audition and DAA 3502. Continuation of DAA 3502. Further emphasis on projection, phrasing, rhythmic patterns and dynamics. Solo and ensemble studies leading to performance. May be repeated.

DAA 3700 MODERN DANCE IV (4)
PR: DAA 3700 or Cl. Preparation of studies in rhythm, dynamics, form and motivation, culminating in a solo. May be repeated.

DAA 3701 CHOREOGRAPHY II (2)
PR: DAA 3700 or Cl. Study and execution for basic principles of composition. Preparation of studies in theme and variations, breath phrases and metric phrases. May be repeated.

DAA 3701 CHOREOGRAPHY II (2)
PR: Admission by audition. Intensive work on the growth of personal performance styles. Equal emphasis will be given to training the body in the development of technical excellence. Rehearsal hours to be arranged. May be repeated.

DAA 4203 BALLET IV (4)
PR: Admission by audition. Perfecting the execution of barre work. Intensification of centre work. More stress on aesthetic quality of movement and phrasing. Students expected to be proficient in pointe work. Outside projects, concerts, and performances are required. Rehearsal hours to be arranged. May be repeated.

DAA 4702 CHOREOGRAPHY III (2)
PR: DAA 3701 or Cl. Work directed toward duets and group dances. The students will submit choreographic ideas for instructor's approval, then proceed with rehearsals. The best dances will be performed and fully produced under supervision of student choreographers. Lec-lab, reading. Rehearsal hours to be arranged. May be repeated.

DAA 4703 CHOREOGRAPHY IV (2)
PR: DAA 4702. The student will prepare studies based on free form, minimal art, and chance methods. Lec-lab, reading. May be repeated.

DAA 4790 SENIOR PROJECT (1-5)
PR: Senior Major, Cl, CC. The creation of an original group work and solo within the senior's major concentration-ballet or modern. To be performed and presented with the concurrence of a faculty advisor.

DAA 4929 DANCE STUDIES (1-4)
PR: Cl and CC. Dance Major status. Individual study to extended competency in technique and performance of Dance through participation in special workshops. May be repeated up to 4 credit hours.

DAN 3100 INTRODUCTION TO DANCE (2)
For majors and non-dance majors, a study of the art of dance. Activities including Modern, Ballet, Jazz, Ethnic, and Tap. May be used for University General Distribution Requirement by the non-major; and may be used to satisfy part of the 6 hour in-college requirement for fine arts majors in art, music and theatre.

DAN 3590 PRACTICUM IN DANCE PRODUCTION I (1-4)
A practicum in mounting dance concerts with shop work and backstage participation. Intended for students working in costuming, set preparation, light presentation, stage management and production crew. May be repeated up to 9 credit hours.

DAN 3610 MUSIC FOR DANCE I (2)
Development of practical music skills in relation to dance. Emphasis on rhythm and the relationship of music forms to dance. May be repeated up to 4 credit hours.

DAN 3611 MUSIC FOR DANCE II (2)
PR: DAN 3610 or CI. Elements within historical context. Continued problems in rhythmic materials.

DAN 3710 REPERTORY (1)
The development and performance of solo and/or group dances. Open to all University students by audition. May be repeated.

DAN 4120 SURVEY HISTORY OF DANCE 6A (3)
Survey history of dance. Study of development of dance from its inception through 18th Century. Social and theatrical dance forms, Ethnic Dance included.

DAN 4151 19TH AND 20TH CENTURY DANCE (3)
Survey history of dance. Study of development from 19th Century through 20th Century. Theatrical and other expressive forms included. Reading, lecture and visual aids.

DAN 4170 DANCE SENIOR SEMINAR (2)
PR: Senior major, CC. To aid majors to understand, appraise and perfect their own art and technique through critical and aesthetic judgments of their colleagues.

DAN 4905 DIRECTED READING (2)
PR: CI and CC. Readings in topic of special interest to the student. Selection of topic and materials must be agreed upon and approved prior to registration. May be repeated for credit for different topics only.

DAN 4906 DIRECTED STUDY (1-5)
PR: CI. CC. Independent studies in the various areas of Dance. Course of study may be used to fulfill Junior Project. May receive approval prior to registration.

DAN 4930 SELECTED TOPICS IN DANCE (1-5)
PR: CI and CC. The content of the course will be governed by student demand and instructor interest. May be repeated for credit for different topics only.

MUSIC


MUC 2201 COMPOSITION (3)
PR: MUC 1112 and CI. Private instruction in original composition. Required of composition majors. May be repeated for three semesters.

MUC 2301 INTRODUCTION TO ELECTRONIC MUSIC (2)
History and repertory of electronic music; standard sound studio techniques; basic electronics as applied in electronic sound synthesis; mathematics for music, composition and electronic music.

MUC 3202 COMPOSITION (3)
PR: Necessary competency at MUC 2201 level determined by faculty jury. Private instruction in original composition. Required of composition majors. May be repeated for three semesters.

MUC 3401, 3402 ELECTRONIC MUSIC-ANALOG SYNTHESIS (3,3)
PR: MUC 2301 and Cl. Composition for tape medium with analog synthesizers; use of sound recording studio; repertory or analog music synthesis; technical basis of analog systems design and construction.

MUC 3441, 3442 ELECTRONIC MUSIC-DIGITAL SYNTHESIS (3,3)
PR: MUC 3401 and CI. Computer assisted composition for conventional instruments; composition for tape medium with computer controlled analog synthesizers; direct digital synthesis; digital systems design and construction.

MUC 3601, 3602 CONTEMPORARY TECHNIQUES OF COMPOSITION (3,3)
MUC 4203 COMPOSITION (3)
PR: Necessary competency at MUC 3202 level determined by faculty jury. Private instruction in original composition. Required of composition majors. Must be repeated for credit for a minimum of 6 hours for majors.

MUC 4403, 4404 (formerly MUC 4405, 4406)
ELECTRONIC MUSIC-REALTIME PERFORMANCE (3,3)
PR: MUC 3402 and MUC 3442 or equivalent. Composition for analog/digital equipment, performance applications; sound synthesis, interfacing electronics with conventional instruments.

MUC 4501 SEMINAR IN NEW MUSICAL SYSTEMS (2)
PR: MUC 3010 & CI. Experimental sound sources and ensemble groupings; creating of new instruments; unfamiliar sonic materials and unique social contexts for music. May be repeated for credit.

MUG 4201 CONDUCTING (2)
PR: CI. The study and practical application of basic conducting techniques. Development of skills related to the conducting of musical scores.

MUG 4302 (formerly MUG 4301)
CONDUCTOR WORKSHOP (2)
PR: MUG 3010 or its equivalent and CI. Practical application of conducting techniques to choral works, score study, performance practices, and rehearsal techniques. Class serves as performing group.

MUG 4304 (formerly MUG 4303)
INSTRUMENTAL CONDUCTING (2)
PR: MUG 3010 & CI. A study of those techniques of conducting unique to instrumental music ensembles: baton technique, score reading, terminology, rehearsal management.

MUH 3019 HISTORY OF POPULAR MUSIC (2)
Popular music in the U.S. from 1820 to present. Units on the big band era, country and western, jazz, Black music, and the rock scene beginning in 1955. May be used for University General Distribution Requirements and may be used to satisfy part of the 6 hours in-College Requirement for Fine Arts majors in Art, Dance, Theatre and Multidisciplinary Studies. May be repeated for credit.

MUH 3016 SURVEY OF JAZZ (2)
Open only to non-music majors. A study of jazz, its heritage, personalities and music. Emphasis is placed on the development of listening techniques.

MUH 3300 MUSIC HISTORY / MEDIEVAL AND RENAISSANCE (2)
PR: CI. Required of music majors; a study of the historical development of musical styles of the Medieval and Renaissance periods and of the music of those periods.

MUH 3301 MUSIC HISTORY / BAROQUE AND CLASSIC (3)
PR: CI. Required of music majors; a study of the historical development of musical styles of the Baroque and classic periods and of the music of those periods.

MUH 3302 MUSIC HISTORY / ROMANTIC AND 20TH CENTURY (3)
PR: CI. Required of music majors; a study of the historical development of musical styles of the Romantic and 20th Century periods and of the music of those periods.

MUL 2111 INTRODUCTION TO MUSIC LITERATURE -4A (3)
PR: MUL 1112 or CI. A survey of representative music exemplars of the past and present with emphasis on the study of styles and form. Required for music majors.

MUL 3001 ISSUES IN MUSIC (2)
Open only to non-music majors; lectures and live performances by artist faculty of significant works from the literature for the piano; analysis and illustration in performance of the abstract and aesthetic elements in music which vitally concern the artist-performer. This course is also available on WUSF-TV Channel 16 by the CI U Program. (S/U only.)

MUL 3011, 3012 THE ENJOYMENT OF MUSIC (3,3)
Open only to non-music majors; a study in the art of music and its materials, designed to develop an understanding of basic principles of music and a technique for listening to music.

MAJOR Performing ENSEMBLES (below) PR: CI. Open to all University students with the necessary proficiency in their performing media; study and performance of music for large combinations of voices, string, woodwind, brass, or percussion instruments. May be repeated for credit.

MUN 3120 UNIVERSITY BAND (1)
MUN 3140 WIND ENSEMBLE (1)
MUN 3210 UNIVERSITY ORCHESTRA (1)
MUN 3310 UNIVERSITY SINGERS (1)
MUN 3380 UNIVERSITY-COMMUNITY CHORUS (1)
MUN 3450 (formerly MUN 3451) PIANO ENSEMBLE (1)
MUN 3710 JAZZ ENSEMBLE (1)
MUN 3901 OPERA WORKSHOP (1)
MUN 3930 CHAMBER MUSIC ENSEMBLE (1)
MUN 3950 CONTEMPORARY MUSIC WORKSHOP (1)

MUS 4900 DIRECTED READING (1-3)
PR: CI and CC. Readings in topic of special interest to the student. Selection of topic and materials must be agreed upon and appropriate credit must be assigned prior to registration. A contract with all necessary signatures is required for registration. May be repeated for credit for different topics only.

MUS 4905 DIRECTED STUDY (1-4)
PR: CI. Independent studies in the various areas of music; course of study and credits must be assigned prior to registration; may be repeated.

MUS 4940 NEW MUSIC ENSEMBLE (1)
MUS 4930 SELECTED TOPICS IN MUSIC (1-4)
PR: CI and CC. The content of the course will be governed by student demand and instructor interest. May be repeated for credit for different topics only.

MUS 4931 SELECTED STUDIO TOPICS IN MUSIC (1-4)
PR: CI. The content of the study will be governed by individual student demand and instructor interest with an emphasis on individual instruction.

MUS 4935 MUSIC SENIOR SEMINAR (1)
PR: CI. To aid majors to understand, appraise and perfect their own art through critical and aesthetic judgments of their colleagues. (S/U only)

MUS 5905 DIRECTED STUDY (1-4)
PR: CI. Independent studies in the various areas of music; course of study and credits must be assigned prior to registration; may be repeated.

MUSIC WORKSHOP COURSES (below)
PR: CI. Intensive study in the specialized areas indicated below; open to teachers, University students, and secondary students; credit may be applicable to qualified students.

MUS 5924 BAND WORKSHOP (1-2)
MUS 5925 CHAMBER MUSIC WORKSHOP (1-2)
MUS 5926 CHORUS WORKSHOP (1-2)
MUS 5927 ORCHESTRA WORKSHOP (1-2)
MUS 5928 PIANO WORKSHOP (1-2)
MUS 5929 STRING WORKSHOP (1-2)
MUT 1001 RUDIMENTS OF MUSIC (2)
Open to non-music majors; development of skills in hearing and performing music and in basic notation. Will not count as degree credit for music majors.

MUT 1111, 1112 MUSIC THEORY (3,3)
Pr: CI. Required of music majors; development of skills in perceiving and writing music through the use of aural and visual analysis and examples from all historical periods of music literature.

MUT 1241, 1242 AURAL THEORY (1,1)
Pr: CI. Course designed to begin training in aural recognition and vocal realization of materials used in music composition. Includes rhythmic, melodic and harmonic dictation, and sight singing. To be taken concurrently with MUT 1111, 1112.

MUT 2116, 2117 MUSIC THEORY (3,3)
Pr: MUT 1112. Required of music majors, continuation of MUT 1111 and 1112.

MUT 2246, 2247 ADVANCED AURAL THEORY (1,1)
Pr: MUT 1242. Course designed to continue training in aural recognition and vocal realization of materials used in music composition. Includes rhythmic, melodic and harmonic dictation, and sight singing. To be taken concurrently with MUT 2116, 2117.

MUT 3353 JAZZ COMPOSITION AND ARRANGING I (3)
Pr: MUT 1112 and CI. Course designed to develop arranging and/or compositional skills in the jazz idiom through the study of jazz orchestration, harmonic, and melodic practices.

MUT 3354 JAZZ COMPOSITION AND ARRANGING II (3)
Pr: MUT 1112 and CI. Course designed to develop arranging and/or compositional skills in the jazz idiom through the study of jazz orchestration, harmonic and melodic practices.

MUT 3641 JAZZ THEORY AND IMPROVISATION I (2)
Pr: MUT 1112 and/or CI. A study of jazz improvisational techniques and related jazz theory.

MUT 3642 JAZZ THEORY AND IMPROVISATION II (2)
Pr: MUT 3641 or CI. A study of jazz improvisational techniques and related jazz theory.

MUT 3663 JAZZ STYLES AND ANALYSIS I (2)
Pr: MUT 3642 or CI. A studio course study of the improvised solos of the major innovators in jazz. Oriented toward the continuing development of the students own soloing ability. Students are required to enroll in Jazz Chamber Ensemble as a lab. Open to majors and non-majors.

MUT 3664 JAZZ STYLES AND ANALYSIS II (2)
Pr: Jazz Styles and Analysis I or CI. A continuation of Jazz Styles and Analysis I with the emphasis on contemporary jazz artists. Students are required to enroll in Jazz Chamber Ensemble as a lab. Open to majors and non-majors.

MUT 4311, 4312 ORCHESTRATION (2,2)
Pr: CI. Intensive study and practice in scoring music for various combinations of instruments, including symphony orchestra, band, and smaller ensembles of string, woodwind, brass, and percussion instruments.

MUT 4411 SIXTEENTH CENTURY PRACTICE (2)
Pr: MUT 2117. A study of the music of the 16th century from a theoretical standpoint; development of skills in perceiving and writing music in the style of the period through the use of aural and visual analysis.

MUT 4421 EIGHTEENTH CENTURY PRACTICE (2)
Pr: MUT 2117. An intensive study of the contrapuntal practice of the 18th century; development of skills in perceiving and writing music in the style of the period through the use of aural and visual analysis.

MUT 4571 TWENTIETH CENTURY PRACTICE (2)
Pr: MUT 2117. A study of 20th century theoretical concepts; development of skills in perceiving and writing music in contemporary styles through the use of aural and visual analysis.

MUT 5051 GRADUATE REVIEW OF MUSIC THEORY (1-4)
A graduate level review of basic theoretical concepts with emphasis on the common practice period. The course serves to satisfy deficiencies in music theory and as such does not count toward the degree.

SECONDARY APPLIED MUSIC COURSES (below)
Pr: CI. One-half hour private lesson or one hour class per week for music students wishing to gain proficiency in an area other than their applied performance major and for a limited number of non-music majors who have had prior musical training. Course is open by audition only.

MVB 1211 APPLIED TRUMPET (1)
MVB 1212 APPLIED FRENCH HORN (1)
MVB 1213 APPLIED TROMBONE (1)
MVB 1214 APPLIED BARITONE (1)
MVB 1215 APPLIED TUBA (1)
MVB 1211 APPLIED PIANO (1)
MVP 1211 APPLIED PERCUSSION (1)
MVS 1211 APPLIED VIOLIN (1)
MVS 1212 APPLIED VIOLA (1)
MVS 1213 APPLIED VIOLONCELLO (1)
MVS 1214 APPLIED DOUBLE BASS (1)
MVS 1215 APPLIED HARP (1)
MVB 1216 APPLIED CLASSICAL GUITAR (1)
MVV 1211 APPLIED VOICE (1)
MVV 1211 APPLIED FLUTE (1)
MVV 1212 APPLIED OBOE (1)
MVV 1213 APPLIED CLARINET (1)
MVV 1214 APPLIED BASSOON (1)
MVV 1215 APPLIED SAXOPHONE (1)

CLASS PIANO COURSES (below)
Pr: CI. Class is elementary piano and music fundamentals designed for students with limited keyboard experience. Primary emphasis is placed on sight-reading, accompanying, transposition, harmonization, basic technique, and appropriate literature.

MVK 1111 KEYBOARD SKILLS I (2)
MVK 1121 KEYBOARD SKILLS II (2)
MVK 2111 KEYBOARD SKILLS III (2)
MVK 2121 KEYBOARD SKILLS IV (2)
MVK 3111 MUSIC MAJORS, LEVEL I (2)
MVK 1811 BEGINNING PIANO I (2)
MVK 1821 BEGINNING PIANO II (2)
MVK 2811 INTERMEDIATE PIANO (2)
MVK 2821 INTERMEDIATE PIANO (2)

APPLIED MUSIC COURSES (below)
Pr: CI. Class is elementary piano and music fundamentals designed for students with limited keyboard experience. Primary emphasis is placed on sight-reading, accompanying, transposition, harmonization, basic technique, and appropriate literature.

MVB 1411 APPLIED TRUMPET (3)
MVB 1412 APPLIED FRENCH HORN (3)
MVB 1413 APPLIED TROMBONE (3)
MVB 1414 APPLIED BARITONE (3)
MVB 1415 APPLIED TUBA (3)
MVB 1411 APPLIED PIANO (3)
MVB 1413 APPLIED ORGAN (3)
MVP 1411 APPLIED PERCUSSION (3)
MVS 1411 APPLIED VIOLIN (3)
MVS 1412 APPLIED VIOLA (3)
MVS 1413 APPLIED VIOLONCELLO (3)
MVS 1414 APPLIED DOUBLE BASS (3)
MVS 1415 APPLIED HARP (3)
MVS 1416 APPLIED CLASSICAL GUITAR (3)
MVV 1411 APPLIED VOICE (3)
MVV 1411 APPLIED FLUTE (3)
MVV 1412 APPLIED OBOE (3)
MVV 1413 APPLIED CLARINET (3)
MVV 1414 APPLIED BASSOON (3)
MVV 1415 APPLIED SAXOPHONE (3)

APPLIED MUSIC COURSES (below)
Pr: Necessary competency at freshman level determined by faculty jury examination. Required of all applied music majors. Private and class instruction in string, woodwind, brass, and percussion instru-
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>MVK 2423</td>
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<td>MVW 2425</td>
<td>APPLIED SAXOPHONE (3)</td>
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**APPLIED MUSIC COURSES (below)**

- **MVW 4444 APPLIED BASSOON (3)**
- **MVW 4445 APPLIED SAXOPHONE (3)**

**MUSIC STUDIO PEDAGOGY COURSES (below)**

- **MVW 4640 BRASS (2)**
- **MVK 4640 CLASS PIANO (2)**
- **MVK 4641 PIANO (2)**
- **MVS 4640 STRINGS (2)**
- **MVV 4641 VOICE (2)**
- **MVW 4640 WINDS AND PERCUSSION (2)**

**MASTER CLASS COURSES (below)**

- **MVW 5751 VIOLIN, MASTER CLASS (2)**
- **MVS 5750 STRINGS, MASTER CLASS (2)**
- **MVW 5751 VOICE, MASTER CLASS (2)**

**MUSIC EDUCATION**

*Director: C. Doane; Professors: V.A. Bridges, J.J. Heller; Associate Professor: C. Doane; Adjunct Instructors: M. Grifflen, P. Heston, J. Scora, D. Tagliarini.*

<table>
<thead>
<tr>
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<tr>
<td>MUE 2090 THEORETICAL BASES OF MUSIC EDUCATION (1)</td>
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<td>MUE 3421 CHORAL MATERIALS PRACTICUM (1)</td>
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<td>MUE 3422 BAND MATERIALS PRACTICUM (1)</td>
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<td>MUE 3423 ORCHESTRA MATERIALS PRACTICUM (1)</td>
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<td>MUE 3450 BEGINNING WOODWIND TECHNIQUES (1)</td>
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<td>MUE 3451 ADVANCED WOODWIND TECHNIQUES (1)</td>
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<td>MUE 3460 BEGINNING BRASS TECHNIQUES (1)</td>
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<td>MUE 3461 ADVANCED BRASS TECHNIQUES (1)</td>
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**APPLIED HARP**

Necessary competency at sophomore level determined by faculty jury examination. Required of all applied music majors. Private and class instruction in string, woodwind, brass and percussion instruments, voice and piano. May be repeated for credit for a maximum of 4 hours for the same section.

**APPLIED TRUMPET**

Necessary competency at junior level determined by faculty jury examination. Required of all applied music majors. Private and class instruction in string, woodwind, brass and percussion instruments, voice and piano. Must be repeated for credit for a maximum of 6 hours for majors.

**APPLIED CLASSICAL GUITAR**

May be repeated for credit for a maximum of 12 credit hours. Course content will change each semester. May be repeated for a total of 2 credit hours.

**APPLIED PIANO**

The course develops knowledge and skills dealing with the fundamentals of piano performance. In addition basic techniques of piano performance are taught through the study of clarinet and flute.

**APPLIED VIOLONCELLO**

Sophomore standing, woodwind instrument major or MUE 3451. The course develops knowledge and skills dealing with advanced principles of teaching and performing on woodwind instruments.

**APPLIED VIOLONCELLO**

Sophomore standing, non-woodwind major. The course introduces the fundamentals of woodwind instrument pedagogy. In addition basic techniques of woodwind performance are taught through the study of clarinet and flute.

**APPLIED VIOLONCELLO**

Sophomore standing, non-woodwind major. The course introduces the fundamentals of woodwind instrument pedagogy. In addition basic techniques of woodwind performance are taught through the study of clarinet and flute.

**APPLIED VIOLONCELLO**

Sophomore standing, non-woodwind major. The course introduces the fundamentals of woodwind instrument pedagogy. In addition basic techniques of woodwind performance are taught through the study of clarinet and flute.

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**APPLIED VIOLONCELLO**

Sophomore standing, non-woodwind major. The course introduces the fundamentals of woodwind instrument pedagogy. In addition basic techniques of woodwind performance are taught through the study of clarinet and flute.
MUE 4210 MUSIC FOR THE CHILD (3)
PR: Admission to the College of Education. Music fundamentals, the development of music skills and knowledge of music materials and teaching strategies for presenting music to children in the elementary school.

MUE 4352 FOUNDATIONS OF INSTRUMENTAL MUSIC (3)
PR: CI. Junior standing. Introduction to the foundation of instrumental music instruction in the elementary and middle school.

MUE 4330 CLASSROOM MUSIC IN THE SECONDARY SCHOOL (3)
PR: CI. Development and implementation of methods and techniques for teaching music to the student not participating in secondary school music performing groups.

MUE 4311 MUSIC IN THE ELEMENTARY SCHOOL (3)
A study of principles, techniques, materials, and activities as they relate to a comprehensive music curriculum in Grades K-6.

MUE 4331 CHORAL METHODS IN THE SECONDARY SCHOOL (3)

MUE 4332 INSTRUMENTAL MUSIC IN THE SECONDARY SCHOOL (3)

MUE 4480 BAND PAGEANTRY (1)
This course is designed as an elective offering for instrumental music majors who expect to direct band activities in a secondary school. It will provide the student with skills in creating half-time shows, an integral part of the band teacher's responsibilities.

MUE 4905 INDEPENDENT STUDY: MUSIC EDUCATION (1-4)
PR: CI. Specialized independent study determined by the student's needs and interests. May be repeated when subjects vary. (S/U only)

MUE 4909 DIRECTED STUDY: MUSIC EDUCATION (1-3)
PR: Senior standing. To extend competency in teaching field. Offered only as a scheduled class.

MUE 4936 SENIOR SEMINAR IN MUSIC (2)

MUE 4940 INTERNSHIP: MUSIC EDUCATION (1-12)
One full semester of internship in a public or private school. Intern takes Senior Seminar in Education concurrently. In special programs where the intern experience is distributed over two or more semesters, students will be registered for credit which accumulates from 9-12 semester hours. (S/U only)

MUE 4941 INTERNSHIP (1-4)
Part-time internship in an accredited public or private school. To be taken concurrently with departmental requirements and will include beginning of the year experiences when taken in Fall Semester. (S/U only)

MUE 4942 INTERNSHIP (1-2)
PR: Admission to the College of Education and/or departmental approval. Internship in an accredited public or private school which will include the end of the academic year or program closing. (S/U only)

THEATRE


The 2020 THEATRE FUNDAMENTALS (2)
An introduction to the means and materials of theatre, the nature of theatre forms, the concepts of Total Theatre, and the basic issues in American theatre today. This course open to non-majors and theatre majors should take this course concurrently with their first registration in the group of courses TPA 2200, TPA 2223, TPA 2232, TPP 2110. Required of all theatre majors.

THE 3080C MODERN THEATRE PRACTICE - 6A (4)
Initial readings and exercises in theatre; play analysis, performance, and technical theatre for non-theatre majors.

THE 3110 THEATRE HISTORY (4)
A survey of all facets of theatrical performance in selected periods of theatre history from the 5th Century B.C. to the present. Normally ten plays will be read. Required of all theatre majors. Open to non-majors.

THE 3925 PERFORMANCE (1)
The rehearsal, construction, production, of major theatrical works. Concurrent registration in this course is expected of all students who are enrolled in courses carrying an ACP (Advanced Course Production). Assignments are made contractually at the time of registration. Open to non-majors on a credit or non-credit basis. May be repeated.

THE 4180 THEATRE ORIGINS (4)
PR: Completion of first three years as a theatre major and one from the following: THE 4370, THE 4330, THE 4370, THE 4401, THE 4442, THE 4480, or CI. An analysis of the development of theatre out of myth, ritual, and liturgy. Emphasis placed on understanding what the resulting phenomena can teach us about the nature of our art. Either THE 4180 or THE 4562 is required of all theatre majors.

THE 4264 HISTORY OF COSTUME (3)
A survey of clothing and dress from Ancient Egypt to the 20th Century with an emphasis on cultural and social influences. (A requirement in the design track/costume.) Open to upper level non-majors with CI.

THE 4266 ARCHITECTURE AND DECOR (3)
The survey of architectural and decorative motifs and decor and their stylistic concepts. (A requirement in the design track/scenic.) Open to upper level non-majors with CI.

THE 4320 THE THEATRE OF MYTH AND RITUAL/ NORTHERN EUROPEAN (950-1600) AND ORIENTAL (400-1200) (3)
PR: THE 3110. An investigation into the interrelationship of myth, ritual, and theatre event. Enables the student to analyze these scripts in light of their present productivity and past cultural energy. Open to upper level non-majors with CI.

THE 4330 SHAKESPEARE FOR THE THEATRE (3)
PR: THE 3110. Study of several Shakespeare plays from the historic point of view. "No sort of study of a (Shakespeare) play can better the preparation of its performance if this is rightly done." Harley Granville-Barker. Open to non-majors with CI.

THE 4370 THE 19TH CENTURY THEATRE REVOLUTION (3)
PR: THE 3110. Survey of materials in the Continental, English, and American stage dating from 1870. Deals with the extraordinary playwrights and new theatre movements. Open to non-majors with CI.

THE 4401 O'NEILL AND AFTER (3)
PR: THE 3110. Survey of materials in the American Theatre from the writings of Eugene O'Neill to the present. Open to non-majors with CI.

THE 4442 THE COMEDY OF THE CLASSIC AND NEO-CLASSIC STAGE (3)
PR: THE 3110. A course in the function of the script for the active theatre artist, treating materials from the Ancient Greeks through the Restoration and the theatre of Molieres, giving some attention to later reflections. Open to non-majors with CI.

THE 4480 DRAMA-SPECIAL TOPICS (3)
PR: THE 3110. A course in the function of the script for the active theatre artist treating materials of a particular playwright or grouping of playwrights. Repeatable with consent of advisor and change in topic. Open to non-majors with CI.

THE 4562 SENIOR COLLOQUIUM IN THEATRICAL CREATIVITY (4)
PR: THE 4180. A colloquium in the nature of the synthesized theatre
object. Required of all theatre majors. Open to senior non-majors with CI.

**TPA 4900 DIRECTED READING**  
PR: CI and CC. Readings in a topic of special interest to the student. Selection of topic and materials must be agreed upon and appropriate credit must be assigned prior to registration. A contract with all necessary signatures is required for registration. May be repeated for credit for different topics only.

**TPA 4905 DIRECTED STUDIES**  
PR: CC. Independent studies in the various areas of Theatre. Course of study and credits must be assigned prior to registration.

**TPA 4927 ADVANCED PERFORMANCE**  
PR: THE 3925 or CI. The study, rehearsal and performance of major theatrical works. Admission by audition. May be repeated. Additional credit may be earned with THE 4905 or THE 5909.

**TPA 4930 SELECTED TOPICS IN THEATRE**  
PR: CI. The content of the course will be governed by student demand and instructor interest. May be lecture or class discussion or studio format. May be repeated for credit for different topics only.

**TPA 5902 DIRECTED READING**  
PR: CI and CC. Reading in topics of special interest to the student. Contract defining scope of projects, materials used, expected results and credit hours assigned must be completed prior to registration. May be repeated for different topics.

**TPA 5909 DIRECTED STUDIES**  
PR: CC. Independent studies in the various areas of Theatre. Course of study and credits must be assigned prior to registration.

**TPA 5931 SELECTED TOPICS IN THEATRE**  
PR: CI. The content of the course will be governed by student demand and instructor interest. May be lecture or class discussion or studio format. May be repeated for credit for different topics only.

**TPA 2220 THEATRE CRAFTS: STAGECRAFT**  
(3)  
The scenic materials and skills basic to theatrical production. An introductory course with lab. Required of all theatre majors. Open to non-majors.

**TPA 2233 THEATRE CRAFTS: LIGHTING**  
(3)  
Required of all tech/design majors. The basic equipment and skills used in lighting and sound for stage productions. This course or TPA 2232 Theatre Crafts: Costume required of all theatre majors. Open to non-majors.

**TPA 2232 THEATRE CRAFTS: COSTUME**  
(3)  
Required of all Tech/Design majors. This course or TPA 2223 Theatre Crafts: Lighting required of all theatre majors. By learning basic tools, processes and materials used in the Costume Shop, the student will become skilled in the costume process. This course also trains students in wardrobe crew practices and in preparing costumes in the USF Costume Shop. Open to non-majors.

**TPA 2250 WORKSHOP IN STAGE MAKEUP**  
(1)  
Beginning theory and practice in make-up for the stage. Theatre majors given preference. A studio course.

**TPA 3086 MEANS OF VISUAL EXPRESSION**  
(3)  
PR: Completion of the four required 2000 level courses. The study of presentation techniques for visual design and technology as applied to the development of visual dynamics. Required of all theatre majors. Open to non-majors with TPA 2200 and CI.

**TPA 3221 LIGHTING: THEORY AND PRACTICE**  
(3)  
PR: TPA 2223. This course covers the principles of color theory and composition as pertains to lighting design. Laboratory experiments in usage of light to create space utilizing shadow, texture and blending. Introduction to stage lighting methods and graphics.

**TPA 3601 STAGE MANAGEMENT**  
(2)  
PR: TPA 2200, TPA 2223, or TPA 2232. A practical course in the organizational function of the stage manager in theatre, dance, opera, and other live performance situations.

**TPA 3810 INTRODUCTION TO PUPPETRY**  
(3)  
PR: Completion of the four required 2000 level courses. Principles and methods of puppetry with a historical survey of major forms and practical problems with laboratory production. Open to non-majors with CI.

**TPA 3840 PUPPETRY PERFORMANCE AND PRODUCTION**  
(4)  
PR: TPA 3810. The creation, building, rehearsal, and performance of plays for puppet theatre. May be repeated one time for additional elective credit, with CI, to total of 8 hours. Open to non-majors with CI.

**TPA 4012 PROJECT DESIGN: HONORS**  
(3)  
PR: One of TPA 4020, TPA 4040, TPA 4060 and portfolio review. A workshop for students in scenery, lighting, and costume design admitted only by recommendation of instructor and review of portfolio. Consideration will be given to integrating the design for sets, costumes, and lights; under special circumstances credit may be given for actualized production design.

**TPA 4020 LIGHT DESIGN**  
(4)  
PR: ART 3301C, TPA 3221, TPA 4211 and portfolio review. The aesthetic and practical application of the elements of design in costume for theatre presentation. A requirement in the design track/lighting.

**TPA 4081 SCENE PAINTING**  
(2)  
PR: TPA 3086. A practical course in the painting of stage scenery media and application. Open to non-majors with CI.

**TPA 4211 STAGECRAFT AND DRAFTING**  
(3)  
PR: TPA 3086. A practical course in drafting for the stage, scenic construction and application. A requirement in the design/scenic and lighting.

**TPA 4230 COSTUME CONSTRUCTION**  
(3)  
PR: TPA 3086, TPA 2232. A practical course in the drafting of wearable patterns for costuming the actor. Materials, skills, and techniques for construction of costumes and costume accessories for stage will be treated. Included topics are millinery, footwear, jewelry, masks, armor, corsets; both period and modern.

**TPA 4240 STAGE PROPERTIES TECHNIQUES AND MATERIALS STUDIO**  
(2)  
PR: TPA 3086. Demonstration and experience with comparatively newer materials used in construction of stage properties. Modeling of prototypes and basic casting techniques. Organization of shop. Open to non-majors.

**TPA 4281 PRACTICUM IN TECHNICAL SUPERVISION**  
(2)  
PR: Either TPA 4211 or TPA 4230. A study of the technical operation and organization for the theatre technologist in costume or in scenery / lighting. Advanced problems in technology and organization.

**TPA 4402 THEATRE MANAGEMENT WORKSHOP**  
(2)  
PR: Completion of the first two years of the theatre program. The study of management relations for the theatre, including all fields of management from box office to publicity.

**TPP 2110 VOICE-BODY-IMPROVISATION**  
(3)  
Exploring the elements basic to acting skills, a participation course. Required of all theatre majors. Open to non-majors.

**TPP 3111 WORKSHOP FOR TEXT ANALYSIS**  
(3)  
PR: Completion of the four required 2000 level theatre courses. The techniques of textual and script analysis related to the composition of performance. Required of all theatre majors. May be taken by non-majors with TPP 2110 and CI.

**TPP 3121 IMPROVISATION**  
(3)  
PR: Completion of the four required 2000 level courses. An intensive study in improvisation and the enhancement of the actor's skills. Exercises and theatre games as flexible forms which accommodate improvisation and physical invention are examined and used to develop group creativity. Open to non-majors with CI.

**TPP 3122 IMPROVISATION II**  
(3)  
PR: TPP 3121; audition. A concentrated study of advanced techniques in improvisational skills as applied to the use of scenario.
Depending on ensemble capabilities, the course will culminate in a classroom improvisational presentation. Open to non-majors with PR.

**TPP 3235 THEATRE FOR SPECIAL AUDIENCES (3)**
- PR: Completion of the four required 2000 level courses and/or CI. The preparation and performance of a production for a special audience (ethnic, children, aged, institutionalized, etc.) with CI, may be repeated one time as additional elective credit (total of 6 hours). Open to non-majors with CI.

**TPP 3500 BODY DISCIPLINES (2)**
- PR: Completion of four required 2000 level theatre courses. A laboratory course in various disciplines or systems in controlling and understanding the body’s motive powers, with focus on their use for the stage performer. Repeatable for credit. Required of all theatre majors with a performance concentration. Open to upper-level non-majors with CI. May be repeated for credit.

**TPP 3510 SPECIAL SKILLS IN MOVEMENT (2)**
- PR: TPP 3500. Stage combat, circus and acrobatic techniques and other special techniques of movement. Repeatable for credit. Open to non-majors with CI.

**TPP 3790L VOICE PREPARATION FOR THE ACTOR (2)**
- PR: Completion of the four required 2000 level theatre courses. A laboratory in voice production and corrective speech for the actor. Repeatable for credit. Required of all theatre majors with a performance concentration. Open to upper-level non-majors with CI. May be repeated for credit.

**TPP 4140 SCENE STUDY II (4)**
- PR: TPP 4150 and audition. Methodology and styles. Examination of the actor’s craft and skills needed to fulfill the demands of various theatre forms. Special attention will be paid to the history of acting styles. Required of all theatre majors with a performance concentration.

**TPP 4150 SCENE STUDY I (4)**
- PR: TPP 3111 and audition. Basic scene study. Special problems in movement and speech to be integrated with character development, rehearsal techniques, and performance composition. Required of all theatre majors with a performance concentration.

**TPP 4152 SCENE STUDY III (4)**
- PR: TPP 4140 and audition. Advanced scene study. Required of all theatre majors with a performance concentration.

**TPP 4180 SCENE STUDY HONORS (3)**
- PR: TPP 4152; admittance by competitive audition. The aesthetics of acting. The various theories of art. A studio course.

**TPP 4220 AUDITION WORKSHOP FOR THE ACTOR (2)**
- PR: TPP 4150 and 4140 or CI. Preparation for professional audition; discussion of professional objectives.

**TPP 4230L LABORATORY WORKSHOP IN PERFORMANCE (3)**
- PR: TPP 3111 and/or CI. Special workshop in advanced techniques based upon individual problems and needs. May be repeated twice (for a total of 9 hours credit).

**TPP 4250 MUSIC THEATRE WORKSHOP (3)**
- PR: TPP 3111. Special problems in acting as applied to the musical theatre with emphasis on singing and dance.

**TPP 4310, 4311 DIRECTING I, II (3,3)**
- PR: TPP 4150. An elective sequence in directing. A workshop course in which the student first encounters the basic tasks of the director by preparing and directing one or two scenes and then progresses to more complex scene work in a variety of styles and finally proceeds to the short play or theatre pieces.

**TPP 4610 WRITING FOR THE THEATRE (3)**
- PR: Completion of the first two years as a theatre major and CI. An elective in writing for the theatre, starting with explorations of theatre as a medium, exercise in theatre form and techniques and progressing to an advanced workshop in plays and other styles of theatre pieces. May be repeated for credit. Open to non-majors with CI.

**TPP 4920 SENIOR WORKSHOP FOR ACTORS (3)**
- PR: TPP 4153, TPP 3500, TPP 3790L. A workshop in advanced vocal and movement techniques. Required for all theatre majors with a performance concentration.