This supplement describes changes in degree and major requirements that apply to you if you first enroll in college during the 2014-2015 academic year. All other provisions of the 2013-2015 Undergraduate Catalog still apply to you, and this supplement should be used in conjunction with that catalog.

Also included are updates and descriptions of new programs and courses available beginning in the 2014-2015 academic year.

2014-2015 SUPPLEMENT to the 2013-2015 Undergraduate Catalog

Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Calendar</td>
<td>2</td>
</tr>
<tr>
<td>Teacher Education Report Card</td>
<td>3</td>
</tr>
<tr>
<td>Expenses 2014-2015</td>
<td>4</td>
</tr>
<tr>
<td>Residency Policy Change for Veterans</td>
<td>6</td>
</tr>
<tr>
<td>Programs of Study</td>
<td>7</td>
</tr>
<tr>
<td>College of Business</td>
<td>7</td>
</tr>
<tr>
<td>Early Childhood/Elementary Education</td>
<td>7</td>
</tr>
<tr>
<td>Elementary Education</td>
<td>8</td>
</tr>
<tr>
<td>Elementary/Middle School Dual Certification</td>
<td>9</td>
</tr>
<tr>
<td>Engineering</td>
<td>9</td>
</tr>
<tr>
<td>Mathematics</td>
<td>10</td>
</tr>
<tr>
<td>Philosophy</td>
<td>11</td>
</tr>
<tr>
<td>Psychology</td>
<td>11</td>
</tr>
<tr>
<td>New and revised course descriptions</td>
<td>12</td>
</tr>
<tr>
<td>Credit-by-Exam</td>
<td>15</td>
</tr>
</tbody>
</table>

Not withstanding any other provision of this or any other University publication, the University reserves the right to make changes in tuition, fees, and other charges at any time such changes are deemed necessary by the University and the University System of Maryland Board of Regents.

The provisions of this catalog are not to be regarded as an irrevocable contract between the University and the student. The University reserves the right to change any provisions of requirement at any time, but its practice is to not make changes in degree and admission requirements retroactive. Other regulations and procedures, tuition and fees, and course offerings may change during the period of your enrollment. Such changes will be published in official University publications such as the Undergraduate Catalog and Registration Guidelines, with prior notice of changes provided if possible.

Frostburg State University is a constituent institution of the University System of Maryland.
Academic Calendar 2014-2015

Fall Semester 2014
March 24 Registration Guidelines Booklet available
March 31 – April 18 Fall 2014 Registration Period
April 18 Last day to register without late fees
August 15 Fall tuition payment must be received in Billing Office
August 16 De-registration may occur — late payment begins
August 28 Non-Registered Transfers and Freshmen Testing
August 29 Non-Registered Transfers and Freshmen Advising and Registration
September 1 Labor Day – limited services available.
Select offices open afternoon.
September 2 Classes begin
September 2-9 Drop/Add Period and Late Registration (PAWS and academic departments)
All unpaid accounts are charged $60 in late fees
September 9 Last day to add courses
September 12 Last day to file pass/fail option
October 14 Last day for undergraduate grade changes for Spring 2014 and Summer 2014 (excluding removal of “I” grades)
October 14 Last day for graduate students to withdraw from courses with a “W”
October 15 Mid-semester warnings available in PAWS
October 24 Last day to register for six-week intensive web courses
October 27 Spring 2015 Registration Guidelines Booklet available
October 29 First day of intensive web courses
November 3-21 Spring 2015 Registration (without payment)
November 3-21 Spring 2015 Registration (with payment)
November 7 Last day to withdraw from undergraduate courses with “W”
November 26 Residence Halls close 7:00 p.m.
November 30 Thanksgiving recess
December 1 Residence Halls open at noon
December 1 Classes resume
December 2 Last day to withdraw from courses with “WF”
December 10 Last day of classes
December 11 Common Exams
December 13 Reading Day
December 14 Final Exams
December 19 Final Exams
December 20 Commencement

Spring 2015
October 27 Spring 2015 Registration Guidelines Booklet available
November 3-21 Spring 2015 Registration Period
January 19 M.L. King Holiday — no classes, offices closed
January 22 Testing (new non-registered students only)
January 23 Advising and Registration (new non-registered students only)
January 26 Classes begin
January 26-30 Drop/Add Period and Late Registration (PAWS and academic departments)
January 30 Last day to add courses
February 13 Last day to file pass/fail option
February 23 Last day for undergraduate grade change for Fall 2014 and Intersession 2015 (including removal of incomplete grades)
March 9 Last day for graduate students to withdraw from courses with a “W”
March 10 Mid-Semester warnings available in PAWS
March 13 Residence Halls close 7:00 p.m.
March 15-22 Spring Break – University closed
March 22 Residence Halls open at noon
March 23 Classes resume
March 23 Fall 2015 Registration Guidelines Booklet available
March 27 Last day to register for Spring 2015 Six-Week Intensive Courses
March 28-30 First day of intensive web courses
April 10 Last day to withdraw from undergraduate courses with “W”
May 12 Last day to withdraw from courses with “WF”
May 12 Last day of classes
May 13 Reading Day
May 14-15 Final Exams
May 16 Course Finals
May 18-20 Final Exams
May 21 Commencement

Intersession 2015
November 3 Registration Begins (Payment is due at time of registration or enrollment in a payment plan)
December 12 Last day to register without late fees
December 12 Last day to withdraw with a refund
(Spring financial aid may not be used for Intersession)
December 15 – Jan. 5 Registration with late fees ($50)
December 17 Course cancellations
January 2 Classes begin — no refund
January 5 Last day to add a course
January 5 Last day to drop course without “W” — no refund
January 14 Last day to drop a course with a “W” — no refund
January 19 M.L. King Holiday — no classes, offices closed
January 23 Last day of classes

Fall Semester 2015
March 24 Registration Guidelines Booklet available
March 31 – April 18 Fall 2015 Registration Period
April 18 Last day to register without late fees
August 15 Fall tuition payment must be received in Billing Office
August 16 De-registration may occur — late payment begins
August 28 Non-Registered Transfers and Freshmen Testing
August 29 Non-Registered Transfers and Freshmen Advising and Registration
September 1 Labor Day – limited services available.
Select offices open afternoon.
September 2 Classes begin
September 2-9 Drop/Add Period and Late Registration (PAWS and academic departments)
All unpaid accounts are charged $60 in late fees
September 9 Last day to add courses
September 12 Last day to file pass/fail option
October 14 Last day for undergraduate grade changes for Spring 2014 and Summer 2014 (excluding removal of “I” grades)
October 14 Last day for graduate students to withdraw from courses with a “W”
October 15 Mid-Semester warnings available in PAWS
October 24 Last day to register for six-week intensive web courses
October 27 Spring 2015 Registration Guidelines Booklet available
October 29 First day of intensive web courses
November 3-21 Spring 2015 Registration (without payment)
November 3-21 Spring 2015 Registration (with payment)
November 7 Last day to withdraw from undergraduate courses with “W”
November 26 Residence Halls close 7:00 p.m.
November 30 Thanksgiving recess
December 1 Residence Halls open at noon
December 1 Classes resume
December 2 Last day to withdraw from courses with “WF”
December 10 Last day of classes
December 11 Common Exams
December 13 Reading Day
December 14 Final Exams
December 19 Final Exams
December 20 Commencement

Spring 2015
October 27 Spring 2015 Registration Guidelines Booklet available
November 3-21 Spring 2015 Registration Period
November 21 Last day to register without late fees
January 19 M.L. King Holiday — no classes, offices closed
January 22 Testing (new non-registered students only)
January 23 Advising and Registration (new non-registered students only)
January 26 Classes begin
January 26-30 Drop/Add Period and Late Registration (PAWS and academic departments)
January 30 Last day to add courses
February 13 Last day to file pass/fail option
February 23 Last day for undergraduate grade change for Fall 2014 and Intersession 2015 (including removal of incomplete grades)
March 9 Last day for graduate students to withdraw from courses with a “W”
March 10 Mid-Semester warnings available in PAWS
March 13 Residence Halls close 7:00 p.m.
March 15-22 Spring Break – University closed
March 22 Residence Halls open at noon
March 23 Classes resume
March 23 Fall 2015 Registration Guidelines Booklet available
March 27 Last day to register for Spring 2015 Six-Week Intensive Courses
March 28-30 First day of intensive web courses
April 10 Last day to withdraw from undergraduate courses with “W”
May 12 Last day to withdraw from courses with “WF”
May 12 Last day of classes
May 13 Reading Day
May 14-15 Final Exams
May 16 Course Finals
May 18-20 Final Exams
May 21 Commencement

Intersession 2015
November 3 Registration Begins (Payment is due at time of registration or enrollment in a payment plan)
December 12 Last day to register without late fees
December 12 Last day to withdraw with a refund
(Spring financial aid may not be used for Intersession)
December 15 – Jan. 5 Registration with late fees ($50)
December 17 Course cancellations
January 2 Classes begin — no refund
January 5 Last day to add a course
January 5 Last day to drop course without “W” — no refund
January 14 Last day to drop a course with a “W” — no refund
January 19 M.L. King Holiday — no classes, offices closed
January 23 Last day of classes

FSU'S TEACHER EDUCATION
Catalog Supplement 2014-2015

FSU's Teacher Education Report Card

Contextual Information
Total number of students admitted into teacher preparation, all specializations: 416
Average number of clock hours required prior to student teaching: 162
Average number of clock hours required for student teaching: 700
Number of full-time equivalent faculty in supervised clinical experience during this academic year: 16
Number of full-time equivalent adjunct faculty in supervised clinical experience during this academic year: 19
Number of students in supervised clinical experience during this academic year: 272

Aggregate and Summary Institutional-level Pass-rate Data:
Regular Teacher Preparation Program

Academic Year: 2012-2013
Number of Program Completers: 167

<table>
<thead>
<tr>
<th>Type of Assessment</th>
<th>Number Taking Assessment</th>
<th>Number Passing Assessment</th>
<th>Institutional Pass Rate</th>
<th>Statewide Pass Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary Totals and Pass Rates</td>
<td>157</td>
<td>151</td>
<td>96%</td>
<td>98%</td>
</tr>
</tbody>
</table>

1. The number of program completions found, matched, and used in the passing rate calculation will not equal the sum of the column labeled “Number Taking Assessment” since a completer can take more than one assessment.
2. Institutions and/or states did not require the assessments within an aggregate where data cells are blank.
3. Number of completers who took one or more tests in a category and within their area of specialization.
4. Number who passed all tests they took in a category and within their area of specialization.
5. Summary Totals and Pass Rate: Number of completers who successfully completed one or more tests across all categories used by the state for licensure and the total pass rate.


**Math, English, Biology, etc.

Residency Policy

VIII-2.70 POLICY ON STUDENT CLASSIFICATION FOR ADMISSION AND TUITION PURPOSES

IV. NON-RESIDENTS WHO MAY TEMPORARILY QUALIFY FOR IN-STATE STATUS

D. A veteran who provides documentation that he/she was honorably discharged from the United States Armed Forces and currently resides, or is domiciled, in Maryland.
This information applies to the academic year 2014-2015 only. Notwithstanding any other provision of this or any other University publication, the University reserves the right to make changes in tuition, fees, and other charges at any time such changes are deemed necessary by the University and the University System of Maryland Board of Regents.

### Tuition

Tuition for legal residents of Maryland is $2,900 per semester for resident undergraduate students, $3,365 for contiguous county undergraduates, $480 per credit hour for non-resident undergraduate students, $357 per credit hour for resident graduate students, and $459 per credit hour for non-resident graduate students. Tuition for out-of-state graduate students, $365 per credit hour is $491 per resident student and $615 for non-resident students.

Summer tuition is $240 per credit hour for resident undergraduate students, $365 for contiguous county undergraduates, $480 per credit hour for non-resident undergraduate students, $357 per credit hour for resident graduate students and $459 per credit hour for non-resident graduate students. Tuition for summer credits, per credit hour is $491 for resident students and $615 for non-resident students.

### Room and Board

The cost for room and board for each University residence hall student varies from $7,252 per year to $10,186 per year. Room contracts are binding for one academic year (fall and spring semesters). All students living in the residence halls are required to purchase a meal ticket for the University dining hall. See the chart below for detailed room and board options and prices.

### Mandatory Fees

The following paragraphs explain how the University uses the mandatory fees which students pay. For information on other fees and expenses related to summer and graduate programs, refer to the respective catalogs and bulletins.

### Activities Fees

An activities fee of $158 per semester for full-time students or $25 per credit hour for part-time students is collected to support student publications, the campus radio station, social activities, student organizations and a balanced program of cultural events.

### Athletic Fee

An athletic fee of $41 per semester for full-time students and a $45 per credit hour fee for part-time students is used to support the University’s program in intercollegiate and intramural athletics.

### Student Union Operating Fee

A $15 fee allows the student to receive a meal ticket for the University dining hall. See the chart below for detailed room and board options and prices.

### Technology Fee

A technology fee of $82 per semester for full-time students and $25 per credit hour for part-time students is charged, allowing students to ride Allegany Transit Authority buses by showing a student ID.

### Room and Board

The following paragraphs explain how the University uses the mandatory fees which students pay. For information on other fees and expenses related to summer and graduate programs, refer to the respective catalogs and bulletins.

### Activities Fees

An activities fee of $158 per semester for full-time students or $25 per credit hour for part-time students is collected to support student publications, the campus radio station, social activities, student organizations and a balanced program of cultural events.

### Athletic Fee

An athletic fee of $41 per semester for full-time students and a $45 per credit hour fee for part-time students is used to support the University’s program in intercollegiate and intramural athletics.

### Student Union Operating Fee

A $15 fee allows the student to receive a meal ticket for the University dining hall. See the chart below for detailed room and board options and prices.

### Technology Fee

A technology fee of $82 per semester for full-time students and $25 per credit hour for part-time students is charged, allowing students to ride Allegany Transit Authority buses by showing a student ID.

### Room and Board

The following paragraphs explain how the University uses the mandatory fees which students pay. For information on other fees and expenses related to summer and graduate programs, refer to the respective catalogs and bulletins.

### Activities Fees

An activities fee of $158 per semester for full-time students or $25 per credit hour for part-time students is collected to support student publications, the campus radio station, social activities, student organizations and a balanced program of cultural events.

### Athletic Fee

An athletic fee of $41 per semester for full-time students and a $45 per credit hour fee for part-time students is used to support the University’s program in intercollegiate and intramural athletics.

### Student Union Operating Fee

A $15 fee allows the student to receive a meal ticket for the University dining hall. See the chart below for detailed room and board options and prices.

### Technology Fee

A technology fee of $82 per semester for full-time students and $25 per credit hour for part-time students is charged, allowing students to ride Allegany Transit Authority buses by showing a student ID.

### Room and Board

The following paragraphs explain how the University uses the mandatory fees which students pay. For information on other fees and expenses related to summer and graduate programs, refer to the respective catalogs and bulletins.

### Activities Fees

An activities fee of $158 per semester for full-time students or $25 per credit hour for part-time students is collected to support student publications, the campus radio station, social activities, student organizations and a balanced program of cultural events.

### Athletic Fee

An athletic fee of $41 per semester for full-time students and a $45 per credit hour fee for part-time students is used to support the University’s program in intercollegiate and intramural athletics.

### Student Union Operating Fee

A $15 fee allows the student to receive a meal ticket for the University dining hall. See the chart below for detailed room and board options and prices.

### Technology Fee

A technology fee of $82 per semester for full-time students and $25 per credit hour for part-time students is charged, allowing students to ride Allegany Transit Authority buses by showing a student ID.
Study Abroad Administrative Fee: A non-refundable administrative fee that covers all study abroad administrative costs of $150 (check with the CIE website for specific information on costs).

In-House Deferment: Students with a balance due after 10 business days will be charged $150, plus late fees for enrollment – two payments.

Special Course Work Fees

The following special fees for course work are non-refundable at the end of the free drop-add period:

Private Music Fee: Music students desiring private study of organ, piano, other instruments, or voice are charged $150 per credit hour.

Additional Course Fees: Course fees and studio fees range from $10-$300 for costs of the course.

Special Instruction Fees: Fees of $10, $20, $25, and $100 respectively for students enrolled in GEP science laboratory courses and courses utilizing the Academic Computing facility are collected to cover laboratory supplies, equipment, software. Fees are also charged to cover art supplies in certain studio courses, course materials or field trips.

Student Teaching Internship Fee: A student teaching internship fee of $350 will be charged for each quarter or semester at the beginning of the semester during which student teaching is scheduled.

Vehicle.Vehicle registration for summer school and evening classes is $10.

College of Business

Major in Business Administration

The Concentration in Small Business/Entrepreneurship will no longer be offered at USMH starting fall 2014. The concentration will continue to be offered at the Frostburg campus.

College of Education

Early Childhood/Elementary Education

Major

Summary of Requirements for Major in Early Childhood/Elementary Education

Major

2. Specific Hours for Early Childhood/Elementary Education Majors: (27 hours)

Social Science (3 hours; GEP Group D)
GEOG 104 Human Geography or GEOG 110 World Regional Geography

5. Specialization (24 hours; 2 courses satisfy GEP)
   a. ART 110 Visual Imagery (3 hours satisfy GEP Group A)
   b. PSYC 150/151 General Psychology (3 hours satisfy GEP Group D)
   c. PSYC 210 Child Development or PSYC 216 Introduction to Lifespan Development
   d. EEDC 290 Field Experience in Early Childhood Education (3 hours required during Phase I. Proposal written during EEDC 293.)
   e. All of the following (12 hours)
      EEDC 150 Early Childhood Foundations (taken Pre-Phase I)
      EEDC 291 Early Childhood Learning Environment, Materials and Methods (taken Pre-Phase I/EEED 150)
      EEDC 411 Early Childhood Education Curriculum Development, Implementation and Assessment (taken during Block I)
      EEDC 440 Adults in the Child’s World (taken during Block II)
Elementary Education

Major

Summary of Requirements for Major in Elementary Education

Directed academic course requirements within and beyond the University GEP

2. Specific Hours for Elementary Education Majors: (27 hours)

Social Science (3 hours; GEP Group D)
GEOG 104 Human Geography or GEOG 110 World Regional Geography

6. Professional Education Courses Required Prior to or Concurrent with Phase I: (4 hours)
EDUC 100 Career Analysis in Education (1)
EDUC 201 Students, Teachers, and Learning Environments (3)
Course required concurrent with Phase I for Early Childhood/Elementary candidates enrolled at University System of Maryland – Hagerstown:
EDUC 335 Teaching Frameworks (2) (which replaces EDUC 100 and EDUC 200)

7. Professional Education Sequence (53 hours)

PHASE II, Block 2 (13 hours)
EDUC 448 Educational Technology Laboratory III (1)
ELED 494 Teaching Internship I: P-8 (6)
REED 420 Assessment for Reading Instruction (3)
REED 425 Materials and Motivations for Reading (3)

PHASE III (15 hours)
EDUC 422 Leadership Seminar P-8 (3) (Capstone)
ELED 495 Teaching Internship II: P-8 (12) (Capstone)

8. Other Internship Requirements
Students wishing to have an internship placement in a middle school must take EDUC 445 Middle School Curriculum Methods (3 hours) during the semester in which they are enrolled in Phase II Block II.

9. Other Graduation/Program Exit Requirements
a. Successful presentation of a portfolio that meets institutional, Maryland state and national standards.
b. Completion of the Praxis II content knowledge and pedagogy tests required by the Maryland State Department of Education (before Phase III).
c. Successful completion of required field experiences in early childhood (PreK-K), primary (1-3) and intermediate (4-6) grades.

Elementary/Middle School Dual Certification

Major

Summary of Requirements for Major in Elementary/Middle School Dual Certification

2. Specific Hours for Elementary/Middle School Education Majors: (27 hours)

Social Science (3 hours; GEP Group D)
GEOG 104 Human Geography or GEOG 110 World Regional Geography

Engineering

CONCENTRATIONS ELECTRICAL MATERIALS

Hours Required in Engineering: 41-44 50
Hours Required in Other Disciplines: 47 40

Total Hours Required: 88-91 90

College of Liberal Arts and Sciences

Engineering

• Discontinuance of the Engineering Management Concentration

• Change in Electrical Engineering Concentration

• Change in Materials Engineering Concentration

Change in Electrical Engineering Concentration requirements:

2. Area of Concentration (32-35 hours)
Majors must choose to concentrate in one of the following areas:

Electrical Engineering (32-35 hours)
EMEE 204 Basic Circuit Theory
EMEE 206 Fund. Digital and Electric Circuits Lab
EMEE 244 Digital Logic Design
EMEE 303 Analog and Digital Electronics
EMEE 307 Electronic Circuits Lab
EMEE 350 Computer Organization
EMEE 380 Electromagnetic Theory
EMES 310 Mechanic and Robotic Design
EMEE 419 Topics in Signal Processing
EMEE 475 Power Electronics
Two electives from any 300- or 400-level EMEE, EMES, or ENEE course.

Materials Engineering (34 hours)
EMES 102 Statics
EMES 220 Mechanics of Materials
EMES 221 Dynamics
EMEE 232 Thermodynamics
EMEE 331 Fluid Mechanics
EMEE 332 Transfer Processes
EMEE 382 Engineering Materials and Manufacturing
EMEE 405 Fundamentals of Materials Engineering
EMEE 425 Microfabrication**
Two electives from any 300- or 400-level EMEE, EMES, or ENEE course.
Mathematics

Teaching Certification Option

<table>
<thead>
<tr>
<th>MAJOR</th>
<th>MINOR</th>
<th>TEACHING-CERT. OPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Mathematics: 42</td>
<td>21</td>
<td>42</td>
</tr>
<tr>
<td>Hours Required in Other Departments: 0</td>
<td>0</td>
<td>42.5</td>
</tr>
<tr>
<td>Total Hours Required: 42</td>
<td>21</td>
<td>84.5</td>
</tr>
</tbody>
</table>

Summary of Requirements for Major in Mathematics

1. Basic Courses (21 hours)
   - MATH 236 Calculus I (Core Skill 3)
   - MATH 237 Calculus II
   - MATH 238 Calculus III
   - MATH 315 Foundations of Mathematics
   - MATH 350 Linear Algebra I
   - MATH 491 Seminar in Mathematics (Capstone)

2. Electives (21 hours)
   - Select from courses at the 300 or 400 level, except MATH 340 Fundamental Concepts of Geometry or MATH 495 Internship in Mathematics. You must select at least one course from each of the following groups.

   A. Geometry and Topology
   - MATH 440 Modern College Geometry
   - MATH 460 Introductory Topology

   B. Analysis
   - MATH 425 Introduction to Real Analysis
   - MATH 426 Introduction to Complex Analysis

   C. Algebra
   - MATH 451 Modern Higher Algebra
   - MATH 452 Linear Algebra II

   D. Applied Mathematics
   - MATH 380 Introduction to Probability and Statistics
   - MATH 432 Differential Equations
   - MATH 435 Numerical Analysis
   - MATH 436 Mathematical Physics
   - MATH 470 Mathematical Models and Applications
   - MATH 480 Probability and Statistics

Psychology

Child and Family Psychology Emphasis

Requirements for Child and Family Psychology Emphasis

1. Required Coursework in Psychology:
   - D) One of the following 400-level learning experiences:
     - PSYC 404 Psychology of the Exceptional Child
     - PSYC 440 Survey of Family Psychology and Intervention Issues
     - PSYC 483 Behavioral Approaches to Human Problems
     - PSYC 490 Special Topics in Psychology involving children and/or adolescents
     - PSYC 492/493 Internship in Psychology involving children and/or adolescents
     - PSYC 498 Readings in Psychology involving children and/or adolescents
     - PSYC 499 Psychology Projects involving research concerning children and/or adolescents

   4. Recommended Course:
      - PSYC 303 Psychology of Couples

Philosophy

Summary of Requirements for Major in Philosophy

Major

3. Distribution within Department:
   - (18 hours)
   - Select 13 hours from among courses at the 300 or 400 level with the exception of PHIL 492 and 495 (the internship) which cannot be used to satisfy the requirements for the major AND select one 400-level Capstone Seminar or PHIL 499 with permission of department chair.

   2. Mathematics Teaching Certification Option Requirements (18 hours)
   - MATH 480 Introduction to Probability and Statistics
   - MATH 425 Real Analysis
   - OR MATH 426 Complex Analysis
   - MATH 437 Combinatorics and Graph Theory
   - MATH 440 Modern College Geometry
   - MATH 461 History of Mathematics
   - MATH 465 Theory of Numbers
   - MATH 451 Modern Higher Algebra
ART 412 Advanced Printmaking 3 cr
Continued study of printmaking processes, refinement of media, and individual expression; critical analysis and research into historical and contemporary trends. At advanced levels, departmental majors will be involved in research and development of concepts culminating in a final senior exhibition or internship. Repeatable no more than 4 times for credit. Two hr. lecture, 2 hr. lab. Every semester.

ART 440 Advanced Sculpture 3 cr
Continued study of functional and non-functional sculptures, and individual expression; critical analysis and research into historical and contemporary trends. At advanced levels, departmental majors will be involved in research and development of concepts culminating in a final senior exhibition or internship. Repeatable no more than 4 times for credit. Two hr. lecture, 2 hr. lab. Every semester.

ART 423 Digital Imaging 3 cr
Introduction to photography and image manipulation using digital processes. Students will study the history of traditional still life photography, but will enhance the learning experience through digital production on the Macintosh computer. An introduction to the computer as an integral tool arts: cameraless, scanning, digital manipulation, and output. Two hr. lecture, 2 hr. lab. Variable.

ART 424 Sculpture 3 cr
Introduction to classical and contemporary concepts of form and media of sculpting. Physical properties of structure and materials of sculpture. Two hr. lecture, 2 hr. lab. Every semester.

ART 402 Advanced Ceramics 3 cr
Continued study of coil and slab techniques, pottery wheel and building techniques; critical analysis and research into historical and contemporary trends. At advanced levels, departmental majors will be involved in research and development of concepts culminating in a final senior exhibition or internship. Repeatable no more than 4 times for credit. Two hr. lecture, 2 hr. lab. Every semester.

ART 420 Ceramics 3 cr
Introduction to ceramic processes, history, and aesthetics of ceramic form; an exploration of functional and decorative ceramic work. Studio performance stressed. Two hr. lecture, 2 hr. lab. Every semester.

ART 436 Imaging Digital 3 cr
Introduction to photography and image manipulation using digital processes. Students will study the history of traditional still life photography, but will enhance the learning experience through digital production on the Macintosh computer. An introduction to the computer as an integral tool arts: cameraless, scanning, digital manipulation, and output. Two hr. lecture, 2 hr. lab. Variable.

ENGE 408 Independent Study in Electrical Engineering 1-4 cr
Independent study topics in advanced electrical and computer engineering issues. Projects typically involve advanced investigations of technical themes that are not addressed in other courses. Study plans tailored to the student’s educational goals but are approved and supervised by Faculty. Project must have substantial research activity. Variable. Prerequisite: junior standing, permission of instructor and he department chair.

EHEE 380 Electromagnetic Theory 3 cr
Study of electromagnetic fields, Coulomb’s law, Gauss’s law, electric potential, method of images, boundary value problems, multipole expansion, Biot-Savart law, Ampere’s law, Lorentz force equations, Faraday’s law and Maxwell’s equations. Fall. Prerequisites: PHYS 263 and junior standing. Co-requisites: MATH 432.

EHEE 488 Independent Study in Engineering Electrical 1-4 cr
Independent study topics in advanced electrical and computer engineering issues. Projects typically involve advanced investigations of technical themes that are not addressed in other courses. Study plans tailored to the student’s educational goals but are approved and supervised by Faculty. Project must have substantial research activity. Variable. Prerequisite: junior standing, permission of instructor and the department chair.

EHEE 499 Senior Project in Electrical and Computer Engineering 1-5 cr
Independent research projects on advanced electrical and computer engineering topics. Projects selected by student and faculty advisor. Research topics are defined by and the qualified members of the faculty. May involve the acquisition of new skills or information. Focus is on the conduct of independent investigations in a technical theme leading to a specified project outcome(s). The course must be defined and delivered as an integral student research. Variable. Prerequisite: Senior standing, permission of instructor and the department chair.

ENGE 409 Field Experience in Writing 1-6 cr
Examination and analysis of physical and/or human geography in the field. Variable. Repeatable for a maximum of 6 credits if experience is substantially different. Three credits required for Journalism minor. Prerequisite: Senior standing or permission of the faculty coordinator.

ENGE 495: Internship in English 6-12 cr

ENGL 206 Modern American Drama 3 cr
Professor provides the student interested in English Training the first extensive exposure to the field. Focuses on the theoretical base of the field as well as introductory injury prevention and management concepts. Fall.

HEED 210 Athletic Taping & Bracing Techniques 1 cr
The art and science of applying athletic tape and braces in the prevention and treatment of athletic injuries. Fall. At majors only.

HEED 222 Emergency Medical Techniques in Ath Training 4 cr
An introduction to the daily management of the athletic training clinical environment. Fall. At majors only.

HEED 233 Clinical Experiences in Ath Training I 1 cr
An introduction to the daily management of the athletic training clinical environment. Spring. At majors only.

HEED 318 Orthopedic Assessment I: Lower Extremity 4 cr
General and specific athletic injury assessment procedures. Emphasis is placed on the lower extremity on the spine, pelvis, and lower extremity including gait and postural assessment. 3 hrs. lecture, 2 hrs. lab. At majors only.

HEED 322 Clinical Experiences in Athletic Training II 3 cr
The continuation in-depth study of the theoretical and clinical practical aspects of athletic training. Fall. At majors only.

HEED 323 Clinical Experiences in Athletic Training III 3 cr
The continuation in-depth study of the theoretical and clinical practical aspects of athletic training. Spring. At majors only.

HEED 408 Therapeutic Modalities in Sports Medicine 4 cr
The study of the physical and technical application of therapeutic modalities. Designed for individuals who routinely treat sports related injuries. 3 hrs. lab. Spring. Prerequisite: HEED 318. At majors only.

HEED 413 Rehabilitation Techniques in Sports Medicine 4 cr
Various aspects of the rehabilitation process for the physically active or athletic population. Goals, techniques, evaluation methods, and specific rehabilitation programs covered. Credit cannot be earned for both HEED 413 and PHEC 413. 3 hrs. lecture 2hrs lab. Fall. Prerequisites: HEED 319. At majors only.

HEED 422 Clinical Experiences in Athletic Training IV 3 cr
Summary of CAATE competencies and Role Definition Study required to prepare for BOC exam. Emphasis is placed on clinical professional decision making skills. Fall. Prerequisite: HEED 322 and HEED 323. At majors only.

HEED 423 Clinical Experiences in Athletic Training V 3 cr
Summary of CAATE competencies and Role Definition Study required to prepare for BOC exam. Emphasis is placed on clinical professional decision making skills. Spring. Prerequisites: HEED 322 and HEED 323. At majors only.

HEED 485 Capstone II 3 cr
Finalization of the theoretical and clinical application of lower body injury assessment and therapeutic modalities utilized by athletic trainers, athletic nutrition, pharmacology and preparation for BOC exams. Spring. At majors only.
MATH 480 Probability and Statistics 3 cr.
An advanced study of probability and statistics that is not for majors. Continuous probability distributions and their statistical applications. Variable. See department secretary for up-to-date schedule. Prerequisites: MATH 238, MATH 380, or permission of instructor.

Physics

PHYS 436 Mathematical Physics 3 cr.
Topics in mathematical methods: finite differences, Fourier series, partial differential equations, complex variables, and conformal mapping with physical applications. Spring. Prerequisite: MATH 462 and PHYS 216 or PHYS 260, or permission of instructor.

Philosophy

PHIL 303 Aesthetics to PHIL 303 Philosophy of Art
PHIL 306 Philosophy of Science to PHIL 306 Science on Trial
PHIL 318 Skepticism and the Search for Truth to PHIL 318 Skepticism & Knowledge

Physics

PHIL 451: Existentialism to PHIL 319: Philosophy of Existentialism

Psychology

PSYC 485 Behavioral Approaches to Human Problems
Extensive examination of behavior therapy principles and strategies/techniques. Spring. Prerequisite: PSYC 300/311 with a "C" or better.