

This supplement describes changes in degree and major requirements that apply to you if you first enroll in college during the 2016-2017 academic year. All other provisions of the 2015-2017 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 2016-2017 academic year.



2016-2017 SUPPLEMENT

to the 2015-2017 Undergraduate Catalog

Table of Contents

| | |
|---|----|
| Academic Calendar | 2 |
| Teacher Education Report Card | 3 |
| Accreditation | 3 |
| Undergraduate Degree Requirements | 4 |
| Expenses 2016-2017 | 4 |
| Programs of Study | 7 |
| College of Business | 7 |
| Accounting | 7 |
| Business Administration - Marketing Concentration | 7 |
| College of Education | 8 |
| Early Childhood/Elementary Education | 8 |
| Elementary Education | 9 |
| Elementary/Middle School Dual Certification | 9 |
| Secondary Teacher Education | 10 |
| Athletic Training | 10 |
| Coaching | 11 |
| Exercise and Sport Science | 11 |
| College of Liberal Arts and Sciences | 12 |
| Addictions Counseling | 12 |
| Biology | 12 |
| Chemistry | 12 |
| Computer Science | 13 |
| Earth Science | 13 |
| Engineering | 13 |
| Geography | 14 |
| International Studies | 15 |
| Law and Society | 15 |
| Music | 16 |
| Physics | 18 |
| Political Science | 19 |
| Sustainability Studies | 19 |
| Urban and Regional Planning | 19 |
| New and revised course descriptions | 20 |

Academic Calendar 2016-2017

For all deadlines: action must be completed by 4:30 p.m. on the date specified. Calendar subject to change without notice.

Fall 2016

| | |
|------------------|---|
| August 9 | Last Day to Register without Late Fees - |
| August 9 | Fall Tuition Payment must be received in Billing Office |
| August 10 | De-Registration May Occur – Late Payment Begins |
| August 25 | Non-Registered Transfers Testing, Advising, and Registration and Freshmen Testing |
| August 25 | Residence Halls open for non-registered new students |
| August 26 | Non-Registered Freshmen Advising and Registration |
| August 27 | Residence Halls open for registered new students at noon |
| August 28 | Residence Hall open for registered returning students at 9 a.m. |
| August 28 | First ORIE Class and Freshman Welcome Events |
| August 29 | Classes Begin |
| August 29-Sept 2 | Drop/Add Period and Late Registration (PAWS and Academic Departments) All unpaid accounts are charged \$60 in late fees |
| September 2 | Last Day to Add Courses |
| September 5 | Labor Day – No Classes, Offices Closed |
| September 16 | Last Day to File Pass/Fail Option for Undergraduate Courses |
| September 16 | Unpaid Accounts assessed \$150 payment fee |
| October 7 | Last Day for Undergraduate Grade Changes for Spring 2016 and Summer 2016 (Including Removal of "I" Grades) |
| October 10 | Mid-Semester Warnings Available in PAWS |
| October 24 | Last Day to Register for Six-Week Intensive Web Courses |
| October 24 | Spring 2017 Registration Guidelines Booklet Available |
| October 24 | Last Day to Register for Six-Week 2 Intensive Web Courses |
| October 31 | First Day of Six-Week 2 Intensive Web Courses |
| Oct 31-Nov 18 | Spring 2017 Registration (Without Payment) |
| Oct 31-Dec 5 | Intersession 2017 Registration (Without Late Fee) |
| November 4 | Last Day to Withdraw from Undergraduate Courses with a "W" |
| November 18 | Last Day to Register for Spring 2017 without Late Fees |
| November 22 | Residence Halls Close 7:00 p.m. |
| November 23-27 | Thanksgiving Recess |
| November 27 | Residence Halls Open at noon |
| November 28 | Classes Resume |
| December 5 | Intersession Payment Due Date |
| Dec 6 -Jan 4 | Intersession Registration with Late Fees (\$30) |
| December 12 | Last Day to Withdraw from Courses with "WF" |
| December 12 | Last Day of Classes |
| December 13-16 | Final Exams |
| December 16 | Spring Tuition Payment Due |
| December 17 | Common Exams |
| December 19 | Final Exams |
| December 19 | Residence Halls Close at 7:00 p.m. |
| December 20 | Commencement |

Intersession 2017

| | |
|------------------|--|
| October 31, 2016 | Registration Begins |
| December 5 | Intersession Payment must be received in Billing Office |
| Dec 6- Jan 4 | Registration with Late Fees (\$30) |
| December 12 | Deregistration for Non-Payment Begins |
| December 19 | Cancellation Date for Courses with insufficient enrollment |
| January 3 | Classes Begin |
| January 4 | Last Day to Add a Course |
| January 4 | Last Day to Withdraw with a Refund |
| January 4 | Last Day to Drop Course without a "W" |
| January 12 | Last Day to Drop a Course with a "W" |
| January 16 | M.L. King Holiday – No Classes, Offices Closed |
| January 27 | Last Day of Classes |

Spring 2017

| | |
|------------------|--|
| January 26 | Residence Halls Open for Non-Registered New Students |
| January 26 | Testing (New Non-Registered Students Only) |
| January 27 | Advising and Registration (New Undergraduate Non-Registered Students Only) |
| January 29 | Residence Halls Open at 9:00 a.m. |
| January 30 | Classes Begin |
| January 30-Feb 3 | Drop/Add Period and Late Registration (PAWS and Academic Departments) All unpaid accounts are charged \$60 in late fees |
| February 3 | Last Day to Add Courses, |
| February 17 | Last Day to File Pass/Fail Option for Undergraduate Courses |
| February 20 | Unpaid Accounts assessed \$150 Payment Plan Fee |
| March 10 | Last Day for any Undergraduate grade change for Fall 2016 and Intersession 2017 (including removal of incomplete grades) |
| March 13 | Mid-Semester Warnings Available in PAWS |
| March 17 | Last Day to Register for Spring 2017 Six-Week Intensive Courses |
| March 17 | Residence Halls Close at 7:00 p.m. |
| March 18-26 | Spring Break – No classes |
| March 26 | Residence Halls Open at noon |
| March 27 | Classes Resume |
| March 27 | Last Day to Register for Six-Week 2 Intensive Web Courses |
| April 3-21 | Fall 2017 Undergraduate Registration Period |
| April 3 | Summer 2017 Registration Begins |
| April 3 | First Day of Six-Week 2 Intensive Web Courses |
| April 7 | Last Day to Withdraw from Undergraduate Courses with a "W" |
| May 16 | Last Day to Withdraw from Courses with a "WF" |
| May 16 | Last Day of Classes |
| May 17 | Reading Day |
| May 18-19 | Final Exams |
| May 20 | Common Finals |
| May 22-24 | Final Exams |
| May 24 | Residence Halls Close at 7:00 p.m. |
| May 25 | Commencement |

FSU's Teacher Education Report Card

Contextual Information

| | |
|--|-----|
| Total number of students admitted into teacher preparation, all specializations | 380 |
| Average number of clock hours required prior to student teaching | 40 |
| Average number of clock hours required for student teaching | 700 |
| Number of full-time equivalent faculty in supervised clinical experience during this academic year | 11 |
| Number of full-time equivalent adjunct faculty in supervised clinical experience during this academic year (IHE & PreK-12 staff) | 17 |
| Number of students in supervised clinical experience during this academic year | 168 |

Student teaching varies by program with most being 20 weeks in the school.

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

Academic Year: 2014-2015

Number of Program Completers: 127¹

| Type of Assessment ² | Number Taking Assessment ³ | Number Passing Assessment ⁴ | Institutional Pass Rate | Statewide Pass Rate |
|--|---------------------------------------|--|-------------------------|---------------------|
| Summary Totals and Pass Rates⁵ | 120 | 118 | 98% | 98% |

- ¹ The number of program completers 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.

See College of Education Web site for detailed report: www.frostburg.edu/colleges/coe - click on "Unit Assessment Reporting."

Accreditation

Frostburg State University is accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104 (267.284.5000). The Middle States Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

Accreditors Approved by the U.S. Secretary of Education:

- Teacher Education Programs: Council for the Accreditation of Educator Preparation (CAEP)

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.

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.

Undergraduate Degree Requirements

Bachelor of Science Degree

9. c. Successfully completing other Frostburg State University courses that provide instruction in the basic technology skills with a grade of C or better. Courses approved for students following this catalog include:

- ART 207 Graphic Design
- CHEM 304 Computational Techniques in Chemistry
- COSC 101 The Discipline of Computer Science
- COSC 220 Introduction to Software Applications
- EDUC 325 Educational Technology
- ENES 100 Introduction to Engineering Design
- GEOG 275 Fundamentals of Geographic Data Handling
- HPED 310 Technology in Health and Physical Education
- MUSC 103 Tonal Analysis
- NURS 404 Nursing Informatics

Expenses 2016-2017

Replaces page 15 of the 2015-2017 Undergraduate Catalog

This information applies to the academic year 2016-2017 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 \$3,170 per semester plus all other applicable fees at the University. Tuition for out-of-state students is \$9,432 per semester plus all other applicable fees at the University. Tuition for regional residents* is \$7,050 per semester plus all other applicable fees at the University.

Evening and part-time tuition

is \$262 per credit hour for resident undergraduate students, \$402 for regional resident* undergraduates, \$530 per credit hour for non-resident undergraduate students, \$394 per credit hour for resident graduate students, and \$506 per credit hour for non-resident graduate students. Doctoral tuition per credit hour is \$542 for resident students and \$678 for non-resident students.

Summer tuition is \$262 per credit hour for resident undergraduate students, \$402 for regional resident* undergraduates, \$530 per credit hour for non-resident undergraduate students, \$394 per credit hour for resident graduate students and \$506 per credit hour for non-resident graduate students. Doctoral tuition per credit hour is \$542 for resident students and \$678 for non-resident students.

Students taking courses for audit or pass/fail or courses without credit designation will receive assigned equivalency credit hours for tuition and fee purposes.

Tuition and Fees for Collaborative Engineering Programs

- Students enrolled in the electrical or mechanical engineering programs offered by FSU in collaboration with University

of Maryland, College Park are subject to a different tuition and fee arrangement due to the unique nature of the program. During the freshman and sophomore years, students pay FSU tuition and fees. After completing 45 credits of designated course work, students will apply for formal acceptance into UMCP's Clark School of Engineering and will be considered UMCP students for the remainder of the program. Students will then pay both UMCP tuition rates and FSU fees to the FSU University and Student Billing Office.

Room and Board

The cost for room and board for each University residence hall student varies from \$7,886 to \$11,084 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 Fee: An activities fee of \$158 per semester for full-time students or \$25 for part-time students is collected to support student publications, the campus radio station, social activities, student government and a balanced program of cultural events.

Athletic Fee: An athletic fee of \$461 per semester for full-time students and a \$48 per credit hour fee for part-time students is used to support the University's program in intercollegiate and intramural athletics.

*Regional Rate: Residents of Pennsylvania, Virginia, West Virginia and Ohio living within 120 miles of Frostburg State University in Frostburg, MD.

Undergraduate Tuition & Fees 2015-2016

| TUITION - FULL TIME (12 cr. or more) | 1st Semester | 2nd Semester | TOTAL |
|--------------------------------------|--------------|--------------|---------|
| Maryland Residents | \$3,170 | \$3,170 | \$6,340 |
| Out-of-State Residents | 9,432 | 9,432 | 18,864 |
| Regional Residents* | 7,050 | 7,050 | 14,100 |

| MANDATORY FEES | | | |
|-----------------------------|---------|---------|---------|
| Technology Fee | \$88 | \$88 | \$176 |
| Activities Fee | 158 | 158 | 316 |
| Athletic Fee | 461 | 461 | 922 |
| Auxiliary Facilities Fee | 270 | 270 | 540 |
| Student Union Operating Fee | 171 | 171 | 342 |
| Transportation Fee | 18 | 18 | 36 |
| Sustainability Fee | 15 | 15 | 30 |
| Total Fees | \$1,181 | \$1,181 | \$2,362 |

TOTAL TUITION AND FEES

| | | | |
|------------------------|---------|---------|---------|
| Maryland Residents | \$4,351 | \$4,351 | \$8,702 |
| Out-of-State Residents | 10,613 | 10,613 | 21,226 |
| Regional Residents* | 8,231 | 8,231 | 16,462 |

ROOM CHARGES

| | | | | |
|------------------------|--------------|---------|---------|---------|
| Frederick, Westminster | double | \$2,210 | \$2,210 | \$4,420 |
| All other halls | double | 2,158 | 2,158 | 4,316 |
| | small single | 2,854 | 2,854 | 5,708 |
| | large single | 3,096 | 3,096 | 6,192 |

BOARD CHARGES

| | | | |
|---|---------|---------|---------|
| Gold Plan with \$200 bonus | \$2,291 | \$2,291 | \$4,582 |
| Silver Plan 19 meals/week w/\$100 bonus | 2,131 | 2,131 | 4,262 |
| 14-meal with \$100 bonus | 2,044 | 2,044 | 4,088 |
| 12-meal with \$250 bonus | 2,123 | 2,123 | 4,246 |
| 10-meal with \$75 bonus | 1,785 | 1,785 | 3,570 |
| Super 15 Plan with \$300 bonus* | 2,446 | 2,446 | 4,892 |

*Default residential meal plan

TOTAL TUITION, FEES, ROOM AND BOARD**

| | | | |
|------------------------|---------|---------|----------|
| Maryland Residents | \$9,007 | \$9,007 | \$18,014 |
| Out-of-State Residents | 15,269 | 15,269 | 30,538 |
| Regional Residents* | 12,887 | 12,887 | 25,774 |

**based on \$4,420 room rate and \$4,892 board rate

subject to change

Auxiliary Facilities Fee: An auxiliary facilities fee of \$270 per semester for full-time students and \$24 per credit hour for part-time students is assessed for construction expenses of the auxiliary facilities.

Student Union Operating Fee: A Student Union operating fee of \$171 per semester for full-time students and \$20 per credit hour for part-time students is charged for operating expenses of the Lane Center.

Sustainability Fee: A fee of \$15 per semester for full-time students and \$2 per credit for part-time students is assessed to fund green initiative projects and programs on campus. Projects will be recommended by the President's Advisory Council for Sustainability that includes faculty, staff and student representatives.

Transportation Fee: A Transportation fee of \$18 per semester for full-time students and \$2 per credit hour for part-time students is charged, allowing

students to ride Allegany Transit Authority buses by showing a student ID.

Technology Fee: A Technology fee of \$88 per semester for full-time students and \$15 per credit hour for part-time students is assessed to fund technology initiatives for student enhancement.

Other Fees and Expenses

Late Payment Fee: A late payment fee of \$30 is charged for payments received after the established payment deadline.

Late Registration Fee: A late registration fee of \$30 is charged for not registering as prescribed or if payment is received after the due date.

Payment Plans are available through a partnership with Tuition Pay. A 4-month plan is available for each semester with a \$45/term enrollment fee.

Check Reissue Fee: A \$30 stop payment check fee is assessed for checks the Bursar's Office needs to reissue.

Career Services Credential Fee: A \$20 fee allows the student to establish a credential file through the Office of Career Services. This is a one-time optional fee.

Duplicate Copies: A \$3 fee is charged for each duplicate statement of fees (or other receipt) requested. A \$20 fee is charged for each duplicate ID Card.

Returned Payment Fee: A \$30 fee is charged whenever a payment of any obligation is returned for any reason. Article

OTHER FEES & EXPENSES

| | |
|--------------------------------|------------------------------|
| Tuition Pay Plans | \$45/term |
| Application Fee, one time only | \$30 |
| Career Services Credential Fee | \$20 |
| Directed Practice Fee | \$100 |
| Duplicate Copy | \$3 |
| Late Registration Fee | \$30 |
| Late Payment Fee | \$30 |
| Lost ID Card | \$20 |
| Private Music Fee | \$150 per credit |
| Returned Check Fee | \$30 |
| Reissue Check Fee | \$30 |
| Study Abroad Admin. Fee | \$150 |
| Vehicle Registration | - day \$40 per year |
| | - evening only \$10 per year |
| In-House Deferment | \$150 per semester |

27, Section 142 of the Annotated Code of Maryland states that anyone who obtains money, etc., by bad check is subject to prosecution. All payments returned to the University by the bank as "unpaid" (this includes payments in dispute or uncollected funds) must be paid within seven days of the University's notification to the student.

Motor Vehicle Registration: A \$40 motor vehicle registration fee is charged for students registering a vehicle. Vehicle registration for summer school and evening classes is \$10.

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).

Balance Due Fee: Students with a balance due after 10 business days will be charged an additional \$100 late payment fee.

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 - \$120 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.

SPECIAL COURSE WORK FEES

| | |
|---|------------|
| Accounting (ACCT 305) | \$25 |
| Art (ART 110) | \$10 |
| Art (ART 100, 111, 301, 302, 360, 370, 380, 408, 415, 430, 460) | \$15 |
| Art (ART 207, 209, 212, 216, 240, 412, 416) | \$25 |
| Art (ART 236, 307, 407, 414) | \$30 |
| Art (ART 221, 232) | \$35 |
| Art (ART 440, 602, 640) | \$40 |
| Art (ART 202, 235, 435, 635) | \$45 |
| Art (ART 402, 421, 432, 621, 622, 632) | \$50 |
| Art (ART 452) | \$60 |
| Biology (BIOL 128, 150, 160, 161, 200, 211, 230, 302, 304, 305, 309, 310, 311, 312, 313, 314, 321, 322, 334, 340, 401, 404, 406, 410, 411, 412, 417, 421, 422, 423, 425, 426, 427, 430, 435, 436, 438, 439, 440, 445, 460, 484) | \$20 |
| Biology (BIOL 109, 149) | \$20 |
| Business Admin. (BMIS 320) | \$25 |
| Chemistry (CHEM 100, 113, 201) | \$20 |
| Chemistry (CHEM 202, 304, 305, 311, 320, 411, 420, 421, 442, 445, 446, 456, 457, 493, 499) | \$25 |
| Computer Science (COSC 100, 110, 220, 330) | \$25 |
| Engineering (ENEE 206; ENES 100; ENME 331, 332, 350, 351, 382) | \$20 |
| Engineering (ENEE 307, 408, 417, 461; ENES 310, 320, 401; ENME 425, 472, 488) | \$25 |
| Geography (GEOG 103, 113, 413, 430, 433, 470) | \$20 |
| Geography (GEOG 207, 340) | \$25 |
| Interdisciplinary Studies (IDIS 150 Outdoor Leadership) | \$115 |
| Mass Comm. (MCOM 101, 287, 387) | \$50 |
| Mass Comm. (MCOM 205, 212, 213, 250, 313, 465, 499 audio) | \$50 |
| Mass Comm. (MCOM 311, 487, 488, 499 video projects) | \$50 |
| Mathematics (MATH 119) | \$45 |
| Mathematics (DVMT 100) Web | \$40-100 |
| Mathematics (DVMT 095) | \$130 |
| Music 315, 319, 321, 327, 329, 330, 331, 335, 336, 337, 339, 340 | \$10 |
| Music Applied 389, 390, 493 | \$150 |
| Music Applied 490 | \$300 |
| Nursing (NURS 401, 402, 403, 404, 405, 406, 491, 495, 496) | \$6/cr.hr* |
| Orientation (ORIE 101) | \$120 |
| Physical Science (PHSC 101, 203) | \$20 |
| Physics (PHYS 215, 216, 261, 262, 263, 331, 332, 350) | \$20 |
| Physics (PHYS 320, 492, 499) | \$25 |
| Psychology (PYSC 150, 151) | \$72 |
| Sociology (SOCL 310/SOWK 310) | \$25 |
| Student Teaching Internship | \$350 |
| Summer Orientation Program | \$125 |

VOLUNTARY MEAL PLANS

(non-residential students)

| | |
|-------------------------------------|--|
| Just-a-Nibble (45 meals/semester) | \$645/semester plus \$200 Bonus Dollars |
| Snack Size (60 meals/semester) | \$670/semester plus \$150 Bonus Dollars |
| Quick Bite (75 meals/semester) | \$966/semester plus \$350 Bonus Dollars |
| Full Meal Deal (100 meals/semester) | \$977/semester plus \$225 Bonus Dollars |

*\$8/cr. hr. beginning Spring 2017

Programs of Study

College of Business

Accounting

Change in Requirements for Major

Summary of Requirements for Major in Accounting

Major

1. FSUBusiness CBK: (33 hours)

| | |
|-----------|---|
| ACCT 211* | Financial Accounting |
| ACCT 212* | Managerial Accounting |
| BLAW 291* | Legal Environment of Business |
| FINA 370* | Corporate Finance |
| MGMT 110* | Career and Professional Development I |
| MGMT 251* | Management of Organizations |
| MGMT 310* | Career and Professional Development II |
| MGMT 355* | Operations Management |
| MGMT 356* | Leadership & Human Behavior |
| MGMT 405* | Business Ethics and Social Responsibility |
| MGMT 485* | Business Policy and Strategy (Capstone) |
| MKTG 361* | Principles of Marketing |

**You must receive a grade of "C" or better for this course to count toward major or minor.*

Business Administration

Change in Requirements for Concentration in Marketing

2. Required Courses in Concentration (12 hours)

| | |
|----------|--|
| MKTG 366 | Consumer Behavior |
| MKTG 462 | Marketing Research |
| MKTG 465 | Marketing Strategies |
| MKTG 469 | Marketing Plans Development (Capstone) |

3. Elective Courses (15 hours)

Select five (including at least three MKTG) from among the following:

| | |
|----------|--|
| ART 207 | Graphic Design |
| CMST 322 | Presentational Communication |
| GEOG 410 | Locational Analysis |
| MGMT 359 | Quality Management |
| | or MGMT 315 New Business Ventures |
| MKTG 363 | Advertising |
| MKTG 364 | Branding Strategy |
| MKTG 365 | Professional Selling and Relationship Management |
| MKTG 460 | Global Marketing |
| MKTG 466 | Services Marketing |
| MKTG 467 | Digital and Social Media |
| MKTG 494 | Internship in Marketing |
| RECR 384 | Special Event Management |

SPECIAL NOTE:

- If you complete EDUC 325, Educational Technology, with a grade of C or better, you will fulfill the University's technology fluency requirement.

Early Childhood/Elementary Education

Change in Phase Requirements

4. Professional Education Sequence (57 hours) See admission requirements for each phase.

PRE-PHASE

- EDUC 100 Career Analysis in Education (1)
 EDUC 201 Students, Teachers and Learning Environments (3 hours taken Pre-Phase or concurrent with Phase I)
 EDUC 202 Foundations of Learning and Instruction (3 hours taken Pre-Phase or concurrent with Phase I)
 EDUC 325 Educational Technology (3 hours taken Pre-Phase or concurrent with Phase I)

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)

PHASE I (7 hours and 3 hours for Early Childhood Specialization Course)

- EDUC 200 Phase I Teaching and Professional Assessment Laboratory (1)
 EDUC 376 Special and Multicultural Education (3)
 REED 323 Process and Acquisition of Reading (3)

PHASE II, Block 1 (12 hours and 3 hours for Early Childhood Specialization Course)

- ELED 307 Block 1 Clinical and Professional Assessment Component (1)
 ELED 471 Mathematics Curriculum, Methods and Assessment (3)
 ELED 474 Science Curriculum, Methods and Assessment (3)
 ELED 475 Social Studies Curriculum, Methods and Assessment (3)
 REED 473 Reading Instruction (3)

PHASE II, Block 2 (12 hours and 3 hours for Early Childhood Specialization Course)

- ELED 494 Teaching Internship I: P-9 (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-9 (3)
 ELED 495 Teaching Internship II: P-9 (12) (Capstone)

Elementary Education

Change in Phase Requirements

4. Professional Education Sequence (57 hours) See admission requirements for each Phase

PRE PHASE

- EDUC 100 Career Analysis in Education (1)
 EDUC 201 Students, Teachers, and Learning Environments (3; *Pre-Phase or concurrent with Phase I*)
 EDUC 202 Foundations of Learning and Instruction (3; *Pre-Phase or concurrent with Phase I*)
 EDUC 325 Educational Technology (3 hours taken *Pre-Phase or concurrent with Phase I*)

PHASE I (7 hours; completed over 1 or 2 semesters)

- EDUC 200 Phase I Teaching and Professional Assessment Laboratory (1)
 EDUC 376 Special and Multicultural Education (3)
 REED 323 Process and Acquisition of Reading (3)

PHASE II, Block I

(13 hours; completed over 1 semester)

- ELED 307 Block 1 Clinical and Professional Assessment Component (1)
 ELED 471 Mathematics Curriculum, Methods and Assessment (3)
 ELED 474 Science Curriculum, Methods and Assessment (3)
 ELED 475 Social Studies Curriculum, Methods and Assessment (3)
 REED 473 Reading Instruction (3)

PHASE II, Block II

(12 hours; completed over 1 semester)

- REED 420 Assessment for Reading Instruction (3)
 REED 425 Materials and Motivations for Reading (3)
 ELED 494 Teaching Internship I: P-9 (6)

PHASE III (15 hours; completed over 1 semester)

- EDUC 422 Leadership Seminar P-9 (3)
 ELED 495 Teaching Internship II: P-9 (12) (*Capstone*)

Elementary/Middle School Dual Certification

Change in Phase Requirements

4. Professional Education Sequence (57 hours) See admission requirements for each phase.

PRE-PHASE

- EDUC 100 Career Analysis in Education (1)
 EDUC 201 Students, Teachers and Learning Environments (3; *Pre-Phase or concurrent with Phase I*)
 EDUC 202 Foundations of Learning and Instruction (3; *Pre-Phase or concurrent with Phase I*)
 EDUC 325 Educational Technology (3 hours taken *Pre-Phase or concurrent with Phase I*)

PHASE I (7 hours and 3 hours for Middle Grades Specialization Course)

- EDUC 200 Phase I Teaching and Professional Assessment Laboratory (1)
 EDUC 376 Special and Multicultural Education (3)
 REED 323 Process and Acquisition of Reading (3)

PHASE II, Block 1 (13 hours)

- ELED 307 Block 1 Clinical and Professional Assessment Component (1)
 ELED 471 Mathematics Curriculum, Methods and Assessment (3)
 ELED 474 Science Curriculum, Methods and Assessment (3)
 ELED 475 Social Studies Curriculum, Methods and Assessment (3)
 REED 473 Reading Instruction (3)

PHASE II, Block 2 (12 hours and 3 hours for Middle Grades Specialization Course)

- ELED 494 Teaching Internship I: P-9 (6)
- REED 420 Assessment for Reading Instruction (3)
- REED 425 Materials and Motivations for Reading (3)

PHASE III (15 hours, completed over 1 semester)

- EDUC 422 Leadership Seminar: P-9 (3)
- ELED 495 Teaching Internship II: P-9 (12) (Capstone)

Secondary Teacher Education

Changes in Requirements

● Secondary Teacher Education is not a primary major. To meet Maryland State certification requirements, Secondary Teacher Education candidates must double major in one of the following disciplines: English, foreign languages, social science, or mathematics. Contact Dr. Jodi Nichols, program coordinator, for details.

The courses of study to be followed in academic content areas are established by individual departments. You may select the secondary teacher education major's certification option in addition to completing the major in the following fields:

- foreign languages & literature (certification in concentration in Spanish)
- English
- mathematics
- social science

Professional Education Sequence

Pre-Phase (7 hours)

- EDUC 100 Career Analysis in Education (1)
- EDUC 201 Students, Teachers & Learning Environments (3)
- EDUC 202 Foundations of Learning and Instruction (3)

Phase I (10 hours)

- EDUC 200 (1)
- REED 317 (3)
- SCED 410 (3)
- SPED 451 (3)

Phase II (12 hours)

- EDUC 300 (1)
- EDUC 391 (2)
- EDUC 325 (3)
- REED 418 (3)
- SCED 411, 414, 415, 419, or 420 (3)

Phase III (8-14 hours)

- SCED 496 (6-12)
- EDUC 406 (2)

Athletic Training

Change in Course Codes

Summary of Requirements for Major in Athletic Training

Major

1. KINE Courses: (75 hours)

- | | | | |
|----------|---|----------|--|
| ATTR 206 | Introduction to Athletic Training | ATTR 450 | Evidence-Based Practice in Athletic Training |
| ATTR 210 | Athletic Taping and Bracing Techniques | ATTR 480 | Capstone I in Athletic Training |
| ATTR 222 | Emergency Medical Techniques in Athletic Training | ATTR 485 | Capstone II in Athletic Training |
| ATTR 223 | Clinical Experiences in Athletic Training I | EXSS 103 | Foundations of Exercise & Sport Science |
| ATTR 318 | Orthopedic Assessment I Upper Extremity | EXSS 200 | Nutrition |
| ATTR 319 | Orthopedic Assessment II Lower Extremity | EXSS 175 | Foundations of Resistance Training |
| ATTR 320 | Pharmacology and General Medical Conditions | EXSS 303 | Biomechanics for Exercise and Sport Science |
| ATTR 322 | Clinical Experiences in Athletic Training II | EXSS 341 | Psychology of Physical Activity |
| ATTR 323 | Clinical Experiences in Athletic Training III | EXSS 401 | Physiology of Exercise |
| ATTR 340 | Organization and Administration of Athletic Training | EXSS 410 | Advanced Strength Training |
| ATTR 408 | Therapeutic Modalities in Sports Medicine | EXSS 411 | Evaluation and Prescription in Fitness |
| ATTR 413 | Rehabilitation Techniques in Sports Medicine | EXSS 435 | Lifespan Health and Fitness |
| ATTR 414 | Advanced Rehabilitation Techniques in Athletic Training | | |
| ATTR 422 | Clinical Experiences in Athletic Training IV (Capstone) | | |
| ATTR 423 | Clinical Experiences in Athletic Training V (Capstone) | | |

Coaching

Change in Course Names

Summary of Requirements for Minor in Coaching

Minor

All of the following: (16 hours)

| | |
|----------|--|
| EXSS 305 | Care and Prevention of Athletic Injuries |
| EXSS 175 | Foundations of Resistance Training |
| PHEC 405 | Psycho-Social Foundations of Sport |
| PHEC 412 | Principles of Coaching |
| PHEC 420 | Sports Law and Ethics |
| PHEC 481 | Field Experience in Coaching |

Two from among: (6 hours)

| | |
|----------|-------------------------|
| PHEC 360 | Theory of Track & Field |
| PHEC 361 | Theory of Football |
| PHEC 362 | Theory of Baseball |
| PHEC 364 | Theory of Basketball |
| PHEC 365 | Theory of Volleyball |
| PHEC 366 | Theory of Soccer |
| PHEC 369 | Theory of Softball |

Exercise & Sport Science

Change in Requirements, Course Names

- You must complete a 9-credit internship during your senior year after successful completion of all other major requirements. This internship, taken in conjunction with the seminar, may be completed during the fall, spring, or summer.
- You must complete a minimum of 3 credits of EXSS 482. These credits can be split between separate semesters or taken together during one semester.
- You must achieve a C or better in all major courses to count toward graduation requirements.
- Upon completion of degree requirements you will be eligible to take the National Strength and Conditioning Association (NSCA) certification exam for Personal Trainer and/or Certified Strength and Conditioning Specialist.

| MAJOR | |
|--------------------------------------|-----------|
| Hours Required in KINE: | 49 |
| Hours Required in Other Departments: | 24 |
| Total Hours Required: | 73 |

Summary of Requirements for Major in Exercise and Sport Science

Major

1. Discipline Core Courses:

(40 hours)

| | |
|----------|---|
| EXSS 103 | Foundations of Exercise and Sport Science |
| EXSS 200 | Nutrition |
| EXSS 305 | Care and Prevention of Athletic Injuries |
| EXSS 306 | Organization & Admin. of Exercise & Sport Science |
| EXSS 115 | Methods of Group Exercise Instruction |
| EXSS 175 | Foundations of Resistance Training |
| EXSS 303 | Biomechanics for Exercise and Sport Science |
| EXSS 341 | Psychology of Physical Activity |
| EXSS 401 | Physiology of Exercise |
| EXSS 410 | Advanced Strength Training |
| EXSS 411 | Evaluation and Prescription in Fitness |
| EXSS 435 | Lifespan Health and Fitness |
| EXSS 482 | Field Experience in Health Fitness (3 hours) |
| EXSS 492 | Seminar in Health Fitness |
| EXSS 495 | Internship in Health Fitness (Capstone - 9 hours) |

2. Courses Required in Other Departments:

(24 hours)

| | |
|----------|---|
| BIOL 149 | General Biology I (GEP Group C) |
| BIOL 321 | Anatomy and Physiology I |
| BIOL 322 | Anatomy and Physiology II |
| BUAD 100 | Introduction to Business |
| MATH 109 | Elements of Applied Probability and Statistics (Core Skill 3) |
| MGMT 315 | New Business Ventures |
| PSYC 150 | General Psychology (GEP Group D) |

College of Liberal Arts and Sciences

Addictions Counseling

Changes in Requirements

Complete a minimum of 16 credit hours distributed as follows:

a. Required Courses: (15 hours)

ALL of the following:

- PSYC 150/151 General Psychology (GEP Group D)
 PSYC 386 Drugs and Human Behavior
 PSYC 387 Addictions Treatment Delivery
 PSYC 388 Treatment Issues and Theory in Addictions
 PSYC 389 Ethics for the Addiction Counselor

List of Topic Areas

The credit hour requirement must be satisfied from the following content areas. Each area is followed by the appropriate FSU course(s); all are 3-credit courses except Ethics. Be aware that although bachelor's degree counselors need only 20 credit hours from the following list to satisfy the course requirement, **your examination will cover ALL CONTENT AREAS.**

- | | |
|--|--|
| 1. Pharmacology of Psychoactive Drugs | PSYC 386 |
| 2. Individual Counseling Techniques | PSYC 410, SOWK 379 |
| 3. Group Therapy Techniques | PSYC 385, SOWK 473 |
| 4. Abnormal Psychology | PSYC 317 |
| 5. Addictions Treatment Delivery | PSYC 387 |
| 6. Treatment Issues and Theory in Addictions | PSYC 388 |
| 7. Family Counseling** | no undergraduate course offered |
| 8. Theories of Counseling and Psychotherapy | no undergraduate course offered |
| 9. Human Life Span Development | PSYC 208 or PSYC 210 and 212, SOWK 375 |
| 10. Ethics for the Addiction Counselor | PSYC 389 |

Biology

Changes in Teacher Education Requirements

If you are interested in teaching biology..

- Students wishing to teach biology at the secondary level (middle and high school) must first obtain a degree in biology (any track) and then complete the Master of Arts in Teaching (MAT) program in the College of Education. Refer to the Graduate Catalog for information on the MAT program and the application process.

Chemistry

Changes in Requirements

MINOR

2. Core Advanced Courses: (13 hours)

- CHEM 311 Organic Chemistry I
 CHEM 312 Organic Chemistry Laboratory I
 and 9 additional hours in Chemistry, 300 level or above, no more than 3 credit hours from CHEM 491 Seminar in Chemistry, CHEM 492 Capstone Experience, CHEM 493 Advanced Chemical Research, CHEM 495 Internship in Chemistry and CHEM 499 Special Problems in Chemistry

If you are interested in teaching chemistry..

- Students wishing to teach chemistry at the secondary level (middle and high school) must first obtain a degree in chemistry (any track) and then complete the Master of Arts in Teaching (MAT) program in the College of Education. Refer to the Graduate Catalog for information on the MAT program and the application process.

Computer Science

Certificate Programs Eliminated

Earth Science

Changes in Teacher Education Requirements

If you are interested in teaching earth science ...

- Students wishing to teach earth science at the secondary level (middle and high school) must first obtain a degree in earth science and then complete the Master of Arts in Teaching (MAT) program in the College of Education. Refer to the Graduate Catalog for information on the MAT program and the application process.

Engineering

Changes in Requirements

| CONCENTRATIONS | ELECTRICAL | MATERIALS |
|--------------------------------------|--------------|--------------|
| Hours Required in Engineering: | 55-58 | 57-58 |
| Hours Required in Other Disciplines: | 34 | 34 |
| Total Hours Required: | 89-92 | 91-92 |

Summary of Requirements for Major in Engineering

Major

1. Core Courses (54-55 hours)

| | |
|----------|---|
| CHEM 201 | General Chemistry I (<i>GEP Group C</i>) |
| ENEE 114 | Programming Concepts for Engineers |
| ENES 100 | Introduction to Engineering Design |
| ENES 401 | Fundamentals of Energy Engineering |
| ENES 491 | Engineering Seminar |
| ENME 272 | Introduction to Computer-Aided Design |
| ENME 350 | Electronics and Instrumentation I |
| ENME 351 | Electronics and Instrumentation II |
| MATH 236 | Calculus I (<i>Core Skill 3</i>)* |
| MATH 237 | Calculus II* |
| MATH 238 | Calculus III* |
| MATH 432 | Differential Equations* |
| PHYS 261 | Principles of Physics I – Mechanics (<i>GEP Group C</i>)* |
| PHYS 262 | Principles of Physics II – Electricity and Magnetism* |
| PHYS 263 | Principles of Physics III – Sound and Light* |
| PHYS 264 | Principles of Physics IV – Thermo. and Mod. Phys.* |

2. Area of Concentration (35-37 hours)

Majors must choose to concentrate in one of the following areas:

Electrical Engineering (35-37 hours)

ENEE 204 Basic Circuit Theory
 ENEE 206 Fund. Digital and Electric Circuits Lab
 ENEE 244 Digital Logic Design
 ENEE 303 Analog and Digital Electronics
 ENEE 307 Electronic Circuits Lab
 ENEE 350 Computer Organization
 ENEE 380 Electromagnetic Theory
 ENES 310 Mechatronic and Robotic Design
 ENEE 408 Capstone Design Project
 ENEE 439 Topics in Signal Processing
 ENEE 475 Power Electronics
Two electives from any 300- or 400-level ENEE, ENES or ENME course or CHEM 304

Materials Engineering (37 hours)

ENES 102 Statics
 ENES 220 Mechanics of Materials
 ENES 221 Dynamics
 ENME 232 Thermodynamics
 ENME 331 Fluid Mechanics
 ENME 332 Transfer Processes
 ENME 382 Engineering Materials and Manufacturing
 ENME 405 Fundamentals of Materials Engineering
 ENME 410 Fundamentals for Design and Engineering of Material Properties
 ENME 425 Microfabrication
Two electives from any 300- or 400-level ENEE, ENES, or ENME course or CHEM 304

Engineering at AACC

Change in Grade Requirements

All majors must earn a C or better in the following prerequisite courses for the major requirements at FSU: ENEE 204, ENEE 206, ENEE 244, MATH 236, MATH 237, MATH 238, MATH 432, PHYS 261, PHYS 262, PHYS 263 and PHYS 264.

Geography

Changes in Teacher Education Requirements

If you are interested in teaching geography. ..

- Students wishing to teach geography at the secondary level (middle and high school) must first obtain a degree in geography and then complete the Master of Arts in Teaching (MAT) program in the College of Education. Refer to the Graduate Catalog for information on the MAT program and the application process.

International Studies

Changes in Foreign Language Requirements

| | MAJOR | INT'L. POLITICS CONC. | INT'L. BUSINESS CONC. | INT'L. ECON CONC. | INT'L. DEVELOPMENT CONC. |
|------------------------------|-------|-----------------------|-----------------------|-------------------|--------------------------|
| Total Hours Required: | 60 | 66 | 66 | 66 | 66 |

Summary of Requirements for Major in International Studies

2. Foreign Language: (12 hours)

Students must complete 12 hours (or receive credit by exam) in one modern foreign language. For languages not offered at FSU, the language requirement may be met by transferring in 12 credits in one language from another institution or by passing a proficiency exam at the intermediate level. A minor in Spanish or French can be earned with 18 credits at the 200-level and above.

Requirements for International Politics Concentration

2. Foreign Language: (12 hours – listed above)

Requirements for International Business Concentration

2. Foreign Language: (12 hours – listed above)

Requirements for International Economics Concentration

2. Foreign Language: (12 hours – listed above)

Requirements for International Development Concentration

2. Foreign Language: (12 hours – listed above)

Law and Society

Changes in Electives for Legal Studies and Criminal Justice Concentrations

Concentration in Legal Studies

B. Elective Courses (24 hours)

Select a total of eight courses, with at least three from Group 1 and at least four from Group 2:

Group 1

| | |
|----------|-------------------------------|
| BLAW 291 | Legal Environment of Business |
| GEOG 473 | Environmental Law |
| MCOM 447 | Telecommunications Law |
| MGMT 457 | Labor Relations |
| PHEC 420 | Sport Law and Ethics |
| POSC 324 | Criminal Justice Systems |
| SCIA 210 | Introduction to Cyber Law |

Concentration in Criminal Justice

B. Elective Courses (12 hours)

Select any four of the following courses:

| | |
|----------|--|
| PHIL 201 | Ethics |
| PHIL 304 | Social Philosophy |
| POSC 321 | American State & Local Politics |
| POSC 323 | Public Administration |
| POSC 353 | Public Program Evaluation |
| POSC 355 | Public Budgeting |
| POSC 358 | American Public Policy |
| PSYC 340 | Forensic Psychology |
| PSYC 386 | Drugs & Human Behavior |
| SCIA 120 | Introduction to Secure Computing & Information Assurance |
| SOCI 305 | Racial & Cultural Minorities |
| SOCI 442 | Juvenile Delinquency |
| SPAN 101 | Basic Elements of Spanish I |
| SPAN 211 | Spanish Grammar & Composition |

Music

Changes in Course Names and Requirements

Summary of Requirements for Major/Minor in Music

| Major | Minor |
|--|--|
| <p>Core Requirements: (47.5-49 hours)</p> <p>1. Music Theory: (16 hours)</p> <p>MUSC 102 Tonal Analysis I MUSC 103 Tonal Analysis II (Tech. Fluency) MUSC 104 Aural Musicianship I MUSC 105 Aural Musicianship II MUSC 204 Tonal Analysis III MUSC 205 Tonal Analysis IV MUSC 206 Aural Musicianship III MUSC 207 Aural Musicianship IV</p> | <p>Core Requirements: (23 hours)</p> <p>1. Music Theory: (8 hours)</p> <p>MUSC 102 Tonal Analysis I MUSC 103 Tonal Analysis II (Tech. Fluency) MUSC 104 Aural Musicianship I MUSC 105 Aural Musicianship II</p> |

Summary of Requirements for the Instrumental Performance Track

3. Supplementary Requirements:

(8 hours)

4. Other Requirements: (7 hours)

MUSC 310 Basic Principles of Conducting I - Choral

And select four hours from:

MUSA 213 Piano Pedagogy
MUSC 305 Orchestration
MUSC 358 Business of Music and Arts Management
MUSC 360 Special Topics in Music (up to 4 credits)
MUSC 401 Post-Tonal Analysis
MUSC 407 Counterpoint
MUSC 499 Individual Research in Music (up to 4 credits)

Summary of Requirements for the Music Studies Track

2. Supplementary Course Requirements:

(11 hours)

MUSC 310 Basic Principles of Conducting I - Choral

And select eight hours from:

MUSA 213 Piano Pedagogy
MUSC 305 Orchestration
MUSC 346 The Opera
MUSC 358 Business of Music and Arts Management
MUSC 360 Special Topics in Music (up to 2 hours)
MUSC 401 Post-Tonal Analysis
MUSC 407 Counterpoint

Summary of Requirements for the Vocal Performance Concentration

4. Other Requirements for Vocal Performance Majors: (10 hours)

MUSC 210 Diction
MUSC 310 Basic Principles of Conducting I - Choral
MUSC 401 Post-Tonal Analysis
MUSC 413 Vocal Pedagogy

Summary of Requirements for the Music Industry Concentration

2. Advanced Courses: (19-22 hours)

| | |
|----------|--|
| MCOM 465 | Music Promotion and Production |
| MUSC 310 | Basic Conducting I |
| MUSC 390 | Junior Recital |
| MUSC 358 | The Business of Music and Arts Management |
| MUSC 492 | Senior Project Paper (<i>Capstone</i>) |
| MUSC 495 | Internship in Music Industry (9 or 12 hours) (<i>Capstone</i>) |

3. Required Courses in Other Departments:

(21-24 hours)

Select one of the following options:

a. Business Administration Minor (21 hours)

| | |
|----------|--|
| ACCT 211 | Financial Accounting |
| BUAD 100 | Introduction to Business |
| | or BLAW 291 Legal Environment of Business |
| FINA 303 | Principles of Finance |
| | or FINA 370 Corporate Finance |
| | or FINA 476 Financial Management |
| MGMT 251 | Management of Organizations |
| MGMT 356 | Leadership and Human Behavior |
| | or BMIS 320 Advanced Computer Appl. in Business |
| MKTG 361 | Principles of Marketing |
| ECON 200 | Basic Economics (<i>GEP Group D</i>) |
| | or ECON 201/211 Principles of Economics-Macro (<i>GEP Group D</i>) |

b. Mass Communication Minor (24 hours)

| | |
|---|---|
| MCOM 105 | Introduction to Mass Communication |
| MCOM 246 | Intro. to Mass Comm. Research Methods |
| MCOM 346 | Mass Communication Theory |
| MCOM 447 | Telecommunications Law |
| MCOM 485 | Electronic Media Aesthetics and Criticism |
| MCOM 486 | Current Issues & New Technologies in Mass Communication |
| <i>Electives: Select six additional credits of MCOM courses (excluding MCOM 100 and MCOM 101)</i> | |

Physics

Changes to Requirements for Major and Tracks

| | MAJOR | MINOR |
|--------------------------------------|-----------|-----------|
| Hours Required in Physics: | 41 | 20 |
| Hours Required in Other Departments: | 18 | 8 |
| Total Hours Required: | 59 | 28 |

Summary of Requirements for Major/Minor in Physics

Major

1. Introductory Level Courses: (15 hours)

PHYS 261 Principles of Physics I: Mechanics (*GEP Group C*)

PHYS 262 Principles of Physics II: Electricity & Magnetism

PHYS 263 Principles of Physics III: Sound & Light

PHYS 264 Principles of Physics IV: Thermodynamics & Modern Physics

2. Advanced Courses: (17 hours)

PHYS 310 Classical Mechanics

PHYS 312 Electricity & Magnetism

PHYS 320 Experimental Physics

PHYS 420 Introduction to Computational Physics

PHYS 491 Seminar

PHYS 492 Senior Research & Seminar (*Capstone*)

3. Required Courses in Other Departments:

(18 hours)

ENES 100 Intro. to Engineering Design

MATH 236 Calculus I (*Core Skill 3*)

MATH 237 Calculus II

MATH 238 Calculus III

MATH 432 Differential Equations

Summary of Requirements for Traditional Physics Track

1. Courses required for all majors: (51 hours)

Listed above.

2. Advanced Courses in the Department: (9 hours)

Choose three of the following:

PHYS 300 Introductory Astrophysics

PHYS 311 Thermodynamics

PHYS 313 Optics

PHYS 410 Theoretical Mechanics

PHYS 412 Theoretical Electromagnetism

PHYS 417 Quantum Physics

PHYS 436 Mathematical Physics

PHYS 440 Acoustics

PHYS 490 Special Topics

PHYS 495 Physics Internship

PHYS 499 Special Projects

Summary of Requirements for Engineering Physics Track

1. Courses required for all majors: (51 hours)

Listed above.

2. Elective Hours in the Department: (9 hours)

With permission of the Department Chair, as many as 6 credits of mechanical engineering or electrical engineering at the 200 level or above may be applied.

If you are interested in teaching physics ...

- Students wishing to teach physics at the secondary level (middle and high school) must first obtain a degree in physics and then complete the Master of Arts in Teaching (MAT) program in the College of Education. Refer to the Graduate Catalog for information on the MAT program and the application process.

Political Science

Changes to Requirements for Major and Minor

Summary of Requirements for Major/Minor in Political Science

| Major | Minor |
|--|--|
| <p>GROUP IV Public Administration and Policy</p> <p>POSC 353 Public Program Evaluation POSC 355 Public Budgeting POSC 358 American Public Policy POSC 450 Environmental Public Policy</p> <p>5. Free Elective Hours in Department: (12 hours) <i>Any courses from the above subfields not already taken and/or:</i> POSC 492 Internship Seminar (3 or 6 credits) POSC 498 Readings in Political Science</p> | <p>1. Introductory Level Courses: (6 hours)</p> <p>POSC 110/112 Introduction to American Politics (GEP Group D) <i>and one of the following:</i> POSC 113/114 Introduction to World Politics (GEP Group D) or POSC 131 Introduction to Comparative Politics (GEP Group D or F)</p> |

Sustainability Studies

Changes to Electives

3. Elective Courses

Add SUST 350 Sustainable Agriculture

Urban and Regional Planning

Changes to Electives

3. Electives:

Add GEOG 360 Food Systems

New and Revised Course Descriptions

ACCOUNTING

DELETED COURSE:

ACCT 340 Financial Reporting Issues

NEW COURSE:

ACCT 350 International Accounting 3 cr.

Accounting principles of various countries including coverage of International Financial Reporting Standard (IFRS), convergence, comparative accounting, foreign currency transactions and translation, analysis of foreign financial statements, other issues. Spring. *Prerequisite: C grade or better in ACCT 312.*

CHEMISTRY

COURSE DESCRIPTION CHANGES:

CHEM 304 Computational Techniques 2 cr.

Introduction to and application of the fundamental methods, tools and techniques essential to solve problems in the physical sciences. Regular topics include statistical, mathematical and computational tools; and data analysis. LabView software as applied to instrumentation. Additional topics explored will augment student needs and supplement area of current interest in science. One hour lecture, one 2-hr. lab integrated. Fall. Also offered as ENES 304 and PHYS 304. *Prerequisites: CHEM 201 and 202 or COSC 240 or ENEE 114 equivalent, or permission of the instructor.*

EDUCATIONAL PROFESSIONS

Deleted courses: EDUC 346, 447, 448

NEW COURSE:

EDUC 325 Educational Technology 3 cr.

Provides opportunities for experiences and practice in using technology tools for educators. Emphasis on the use of technology within the context of accomplishing authentic tasks. Every semester. *Prerequisite: completion of at least 12 credit hours.*

ENGINEERING

NEW COURSES:

ENES 304 Computational Techniques 2 cr.

Introduction to and application of the fundamental methods, tools and techniques essential to solve problems in the physical sciences. Regular topics include statistical, mathematical and computational tools; data analysis. LabView software as applied to instrumentation. Additional topics explored will augment student needs and supplement area of current interest in science. One hour lecture, one 2-hr lab integrated. Fall. Also offered as CHEM 304 and PHYS 304. *Prerequisites: CHEM 201 and 202 or COSC 240 or ENEE 114 equivalent, or permission of the instructor.*

ENES 495 Engineering Internship 1-4 cr.

A field experience to provide the student with an opportunity to explore career paths in a work setting while applying knowledge learned in the classroom. Throughout the internship student develops professional skills consistent with the program educational objectives. Student must enroll in the course before starting the workplace experience. Variable, Up to 4 credits, One course credit for 45-hours of work (37.5 hours of clock time) at the internship location. Can be repeated for up to 4 credits. *Prerequisites: Junior standing, approval of the department chair.*

ENEE 490 Special Topics in Electrical Engineering 1-3 cr.

Study at the senior level of one of the fields or recent developments in contemporary electrical engineering. Repeatable for a maximum of 6 credits if topics are substantially different. Variable. *Prerequisite: permission of department chair.*

ENME 373 Advanced Computer-Aided Design 3 cr.

Advanced two and three dimensional drawing by using computer-aided design (CAD) software systems, dimensioning; specifications, and tolerance; introduction of basic CAD analysis tools and applications in engineering; students will complete a design project. *Prerequisites: PHYS 262 and MATH 432. Junior standing and approval of the department chair.*

ENME 410 Fundamentals for Design and Engineering of Material Properties 3 cr.

Capstone. Design and engineering of material (quantum through continuum) properties: dielectric, ferroelectric, ferromagnetic, piezoelectric, pyroelectric, magneto-restrictive, conductor, semi-conductor, superconductor, opto-electronic, etc., using fundamentals of: atomic constituents and substituents; packing density; short-, medium- and long-range interactions, order and disorder, and conservation principles. Repeatable to 6 credits maximum if content differs. Spring. *Prerequisites: Completion of ENES 491 and permission of department chair.*

COURSE DESCRIPTION CHANGES:

ENES 100 Introduction to Engineering Design 3 cr.

FSU Course. Introduction to the engineering design process, computer software for word processing, spreadsheet, CAD and communication skills. Students work as teams to design and build a project. Two hrs. lecture and two hrs. recitation per week. Every semester. *Tech. Fluency.*

ENES 491 Engineering Seminar 2-3 crs.

Individual reports and group discussions on current topics in Engineering and the role of various science fields in Engineering. Topics selected jointly by student and instructor. Preparation of proposal for a research project. Variable. *Prerequisites: Majors with junior or senior standing. Repeatable once for credit.*

ENME 350 Electronics and Instrumentation I 3 cr.

FSU Course. Modern instrumentation. Basic circuit design, standard microelectronic circuits. Digital data acquisition and control. Signal conditioning. Instrumentation interfacing. Designing and testing of analog circuits. Laboratory experiments. Two hrs. lecture and two hrs. lab per week. Fall. *Prerequisites: A "C" or better in PHYS 262 and MATH 237; co-requisite PHYS 263.*

GEOGRAPHY

COURSE DESCRIPTION CHANGES:

GEOG 380 Research Methods in Geography 3 cr.

Examines qualitative and quantitative methods for handling geo-spatial data. Design of geographic research, approaches to data collection and synthesis, inferential and descriptive geo-spatial statistics, application of statistical software, and presentation of findings. Two hrs. lecture and 2 hrs. lab. Spring. *Prerequisites: GEOG 275 and 9 hrs. of geography or permission of instructor.*

GEOG 482: Senior Project (I) 3 cr.

First stage of the Senior Project, preparation and development of project design, identification of appropriate research methods, detailed project plan, initial background research (literature review) and preliminary data collection. Presentation in written report. Graded A/F. Every semester. *Prerequisite: Senior standing, minimum 15 hours of geography, GEOG 380 or permission of instructor.*

GEOG 483: Senior Project (II)**3 cr.**

Concluding stage of the Senior Project. Collection, presentation, analysis, interpretation, discussion and conclusions of original research by written thesis and oral exhibition. Graded A/F. Every semester. *Prerequisite: GEOG 482.*

HISTORY

COURSE DESCRIPTION CHANGES:**HIST 103 History of the United States****3 cr.**

Survey of the political, social, economic, and diplomatic trends in United States history from 1492 until 1876. Fall.

HIST 104 History of the United States**3 cr.**

Survey of the political, social, economic, and diplomatic trends in United States history from 1876 to the present. Spring.

HIST 111 Honors: The Contemporary World in Historical Perspective**3 cr.**

A consideration of major historical developments of the last century in diverse areas of the world that illuminate contemporary problems. Both reading and writing assignments are more challenging than those in HIST 100. Credit cannot be earned for both HIST 100 and HIST 111. Every semester. *Prerequisite: enrollment in the Honors Program or permission of the instructor. GEP Group B or F.*

HIST 299 Writing and Research in History**3 cr.**

The study and practice of the techniques of historical research and writing. Completion of this course with a C or better is required for final admission to the History major. Fall. *Prerequisite: complete at least one of HIST 103/104/113/114 and enroll concurrently with or soon after completing at least one 300-400 level course.*

INTERDISCIPLINARY STUDIES

COURSE DESCRIPTION CHANGES:**IDIS 495 Interdisciplinary Experience****1-12 cr.**

Supervised field experience. Academic requirements include proposal and application, log/journal; paper/report; and site supervisor performance appraisal. Repeatable for up to 12 credits. Every semester. *Prerequisite: permission of LBST coordinator.*

MANAGEMENT

COURSE DESCRIPTION CHANGES:**MGMT 110 Career and Professional Development I****1 cr.**

Introduction to the professional aspects of a career in one of the majors or concentrations offered by the College of Business. Every semester. *Prerequisite: Declared major or minor in a College of Business discipline or permission of department.*

MGMT 251 Management of Organizations**3 cr.**

The practice of managing in today's dynamic environment, the purpose and processes of organizations, managing individuals and groups in organizations. Emphasis is placed on skills needed for managerial success. Credit cannot be earned for both MGMT 251 and MGMT 351. Every semester. *Prerequisite: 24 credits. Additional prerequisite or corequisite: MGMT 110 for all ACCT, BUAD and ECON majors (Business Economics Concentration) only.*

MGMT 310 Career and Professional Development II**2 cr.**

Provides professional advice for students ending their academic careers and getting ready to embark on professional careers. Every semester. *Prerequisites: Declared major in a College of Business discipline, 70 credits and C grade or better in MGMT 110.*

MARKETING

COURSE NAME & COURSE DESCRIPTION CHANGES:**MKTG 364 Branding Strategy****3 cr.**

Explores the complexities in development, sustainability, and leverage of a brand; it provides fundamental understanding of how to build, measure, and manage a brand, including: the key elements of crafting and driving brand strategy, creating brand equity, and delivering greater financial results for improved consumer loyalty. Fall. *Prerequisite: a grade of C or better in MKTG 361.*

MKTG 467 Digital and Social Media Marketing**3 cr.**

Explores emerging business models and examines digital marketing strategy in the new media landscape, specifically an understanding of major digital platforms, like: website, digital display, search engine, social media, and mobile marketing. Use digital and social media to plan, execute, and measure marketing efforts for greater customer engagement. Spring. *Prerequisite: a grade of C or better in MKTG 361.*

MUSIC

COURSE NAME & COURSE DESCRIPTION CHANGES:**MUSC 102 Tonal Analysis I****3 cr.**

Introduction to the vertical and linear dimensions of tonal music. Review of musical fundamentals, in which students will be expected to demonstrate facility and speed in naming and spelling basic tonal materials. Introduces traditional contrapuntal exercises, basic diatonic harmony, and the construction of formal phrase units. Required for music majors and minors. Note: Students are placed in this course based upon results of a Music Theory Placement Exam given by the Department of Music. Fall. *Prerequisite: concurrent enrollment in MUSC 104: Aural Musicianship I, except by permission of instructor.*

MUSC 103 Tonal Analysis II**3 cr.**

Continued study of tonal harmony and voice leading, both through written work and analysis. Continued focus mostly on diatonic harmony; begin to explore techniques of tonicization and modulation. Required for music majors and minors. Spring. *Prerequisites: MUSC 102 and MUSC 104 or permission of instructor. Concurrent enrollment in MUSC 105: Aural Musicianship II, except by permission of instructor. Tech. fluency.*

MUSC 104 Aural Musicianship I**1 cr.**

First in the sequence that emphasizes strategies for accurate and expressive reading, singing, and dictation using elementary rhythms and diatonic pitch materials in treble and bass clefs. All harmonic, melodic, rhythmic, and formal procedures build on materials mastered in MUSC 102. Required for music majors and minors. Meets 100 minutes per week. Fall. *Prerequisite: Concurrent enrollment in MUSC 102: Tonal Analysis I, except by permission of instructor.*

MUSC 105 Aural Musicianship II**1 cr.**

Complete the aural understanding of diatonic harmony, introduces the experience of simple modulations, and facilitates mastery of rhythmic gestures necessary for performance of common-practice European art music. Alto clef will be introduced with emphasis on rapid and accurate reading, along with associated transpositions. All harmonic, melodic, rhythmic, and formal procedures build on materials mastered in MUSC 103. Required for music majors and minors. Meets 100 minutes per week. Spring. *Prerequisites: MUSC 102 and MUSC 104 or permission of the instructor. Concurrent enrollment in MUSC 103: Tonal Analysis II, except by permission of the instructor.*

NEW AND REVISED COURSE DESCRIPTIONS

MUSC 204 Tonal Analysis III**3 cr.**

Completes the study of 18th and early 19th-century tonal procedures. Explores the meaning of chromaticism in tonal music through examination of tonicization and modal mixture, emphasizing composers' use of these chromatic techniques within large-scale movement organization. Two large-scale analysis projects will include: 1) graphic analysis, 2) its role in representing students' deeper understanding of linear and harmonic motions, and 3) how this understanding impacts performance decisions. Required for music majors. Fall. *Prerequisites: MUSC 103 and MUSC 105 or permission of instructor. Concurrent enrollment in MUSC 206: Aural Musicianship III, except by permission of instructor.*

MUSC 205 Tonal Analysis IV**3 cr.**

Further application of techniques from MUSC 204 with an emphasis on analysis of musical structure and style in Western civilization. Primary focus on written and analytical applications to large formal structures and their relationship to performance. Required for music majors. Spring. *Prerequisites: MUSC 204 and MUSC 206 or permission of instructor. Concurrent enrollment in MUSC 207: Aural Musicianship IV, except by permission of instructor.*

MUSC 206 Aural Musicianship III**1 cr.**

Continuation of MUSC 105 with emphasis on tenor clef and its associated transpositions, a systematic introduction to chromatic processes in tonal music, various problems associated with changing meter signatures and polyrhythms, and perception of tonal processes in complete movements composed in larger forms. All harmonic, melodic, rhythmic, and formal procedures build on materials mastered in MUSC 204. Required for music majors. Meets 100 minutes per week. Fall. *Prerequisites: MUSC 103 and MUSC 105 or permission of the instructor. Concurrent enrollment in MUSC 204: Tonal Analysis III, except by permission of the instructor.*

MUSC 207 Aural Musicianship IV**1 cr.**

Continuation of MUSC 206 with further emphasis on aural musicianship curriculum. Completes the formal study of common-practice tonal relationships and large formal structures. Introduction to reading and performing music in asymmetrical meters, and music that changes meter asymmetrically. All harmonic, melodic, rhythmic, and formal procedures build on materials mastered in MUSC 206. Required for music majors. Meets 100 minutes per week. Spring. *Prerequisites: MUSC 204 and MUSC 206 or permission of the instructor. Concurrent enrollment in MUSC 205: Tonal Analysis IV, except by permission of the instructor.*

COURSE DESCRIPTION CHANGES:**MUSC 252 Music Field Experience****.5 cr.**

Observation of P-12 music classrooms and aiding teachers at the elementary level and secondary level as instructed. Graded P/F. Every semester. *Prerequisites: MUSC 125 and fingerprinting on file with the Department of Educational Professions.*

MUSC 310 Basic Principles of Conducting I – Choral**3 cr.**

Introduction to the basics elements of choral and instrumental conducting. Involves study and practice of techniques of conducting, including conducting patterns, methods of interpretation, rehearsal techniques, performance practice and style, and score analysis. Emphasis on choral, combined choral and instrumental scores. Fall. *Prerequisite: MUSC 205 or permission of instructor.*

MUSC 319 University Chorale**1 cr.**

A select mixed chorus performing a wide variety of choral literature from all historical periods of music history. Open to all students and may include multiple performances throughout the semester, both on and off campus. Meets 150 minutes per week. Every semester. Special instruction fee.

MUSC 340 Chamber Choir**1 cr.**

A highly select group of 24-32 singers performing a wide variety of choral literature designed to promote individual musicianship, advanced techniques and quality of ensemble. Significant number of performances each semester, both on and off campus. Meets 150 minutes per week. Special instruction fee. Every semester. *Prerequisite: permission of instructor; audition required.*

MUSC 352 Choral Music Methods K-12**3 cr.**

Materials and techniques of choral instruction, computer-assisted instruction and integrated technology, and choral performance at all levels of public music education. Required of voice and piano majors in the music teacher education program. Spring. *Prerequisites: MUSA 287 and MUSA 415.*

MUSC 353 Instrumental Music Methods K-12**3 cr.**

Materials and techniques of instrumental music instruction, computer-assisted instruction and integrated technology, and instrumental performance at all levels of public music education. Required of all instrumental majors in teacher education. Spring. *Prerequisites: MUSA 287 and MUSA 415.*

MUSC 370 Vocal Jazz Ensemble**1 cr.**

A highly select group of 8-12 singers performing vocal jazz literature in all relevant jazz styles. The course will include the study of vocal improvisation, transcription, listening skills, and vocal performance. Significant number of performances each semester, both on and off campus. Meets 150 minutes per week. Every semester. Special instruction fee. *Prerequisite: permission of instructor; audition required.*

NEW COURSE:**MUSC 398 Experiential Learning in Music****1-3 cr.**

Provide hands-on learning opportunities combining the intersection between foreign travel, cultural awareness and literacy, music history, cultural exchanges, and musical performance. Students will prepare for and participate in a performance tour or competition domestically or internationally, and undertake study and experiences that promote student investigation into the integration of music and other academic disciplines in a global society. Variable. *Co-requisite: Enrollment in the ensemble or course to which the experiential learning experience will be directly related.*

COURSE NAME & COURSE DESCRIPTION CHANGE:**MUSC 401 Post-tonal Analysis****3 cr.**

Combines a survey of 20th-century compositional styles with advanced musicianship exercises focusing on the post-tonal repertoire. Variable. *Prerequisite: MUSC 205.*

DELETED:**MUSC 492 Music Management Portfolio****COURSE NAME AND CREDITS CHANGE:****MUSC 495 Internship in Music Industry****6-12 cr.**

PHYSICAL EDUCATION - EXERCISE & SPORT SCIENCE

You cannot receive credit for an EXSS course and the same course previously labeled PHEC or HEED.

COURSE NAME AND COURSE DESCRIPTION CHANGES:**EXSS 103 Foundations of Exercise & Sport Science****3 cr.**

The study of both the history and philosophy of exercise and sport science. Emphasis placed on the subdisciplines of athletic training and health/fitness. Every semester.

EXSS 115 Methods of Group Exercise Instruction**3 cr.**

Leadership and technical skills for safe and effective group exercise programs. Every semester.

- EXSS 175 Foundations of Resistance Training** 1 cr.
An introduction to resistance training program design. Emphasis will be on proper exercise technique and functional progressions for a variety of body areas. Every semester.
- EXSS 200 Nutrition** 3 cr.
Principles of nutrition. The effect of food habits on family health. Nutritional requirements for different stages of human development. Application to various economic levels and social backgrounds. Every semester.
- EXSS 303 Biomechanics for Exercise and Sport Science** 3 cr.
Mechanics of human motion – muscles and joints. Application of mechanical principles to the study of human movement in exercise and daily life. Biomechanical relationships in the upper and lower extremities, and the vertebral column. May not be taken by students who have credit for HPED 301. Every semester. *Prerequisite: BIOL 321.*
- EXSS 305 Care and Prevention of Athletic Injuries** 3 cr.
Introduction to athletic injury management. Emphasis on prevention and care of muscular skeletal injuries. Every semester.
- EXSS 306 Organization & Administration of Exercise & Sports Science** 3 cr.
Effective administration and management strategies in exercise and sport science. Human resource management, financial management, facility design and planning, client management issues and legal liability issues addressed. Emphasis on athletic administration, athletic training and health/fitness management. Every semester.
- EXSS 315 Nutrition for the Physically Active** 3 cr.
Advanced study in the science and application of nutrition for both the general population as well the physically active. Variable; 3 credits. *Prerequisite: EXSS 200.*
- EXSS 341 Psychology of Physical Activity** 3 cr.
Concepts related to psychology and physical activity. Theory-to-practice approach on how social variables influence motor behavior and how physical activity affects the psychological make up of the individual. Spring. Every semester. *Prerequisite: PSYC 150.*
- EXSS 401 Physiology of Exercise** 3 cr.
Exercise and the circulatory, respiratory and nervous systems; efficiency of muscular work; fatigue; age, sex and body type. May not be taken by students who have credit for PHEC 406. Every semester. *Prerequisite: BIOL 322.*
- EXSS 410 Advanced Strength Training** 3 cr.
The study of the principles and practices of advanced strength training. Emphasis on the practical application of this knowledge to both athletic performance and a health/wellness setting. Every semester. *Prerequisites: EXSS 175 and EXSS 303.*
- EXSS 411 Evaluation and Prescription in Fitness** 3 cr.
In-depth examination of evaluation of and components applicable to the development of exercise programs. Every semester. *Prerequisite: EXSS 401.*
- EXSS 435 Lifespan Health and Fitness** 3 cr.
An examination of factors that influence health and fitness across the lifespan including methods, services and resources to access and optimize the health and fitness of individuals and cohorts. Every semester.
- EXSS 482 Field Experience in Health Fitness** 1 to 6 cr.
Field experience in health fitness. Sites of study may vary. Offered as needed. Repeatable for maximum of 6 credits if placement sites are different.
- EXSS 492 Seminar in Health Fitness** 3 cr.
A separately graded component of the Health Fitness Internship, required in conjunction with EXSS 495. This course will address worksite issues encountered during the internship experience. Every semester. *Co-requisite EXSS 495.*
- EXSS 495 Internship in Health Fitness** 3 cr.
Special work experiences related to the health fitness academic program. Full-time students must register for a minimum of 9 credit hours of internship. Graded P/F. Exercise and Sport Science Capstone. Every semester. *Co-requisite EXSS 492. Prerequisites: EXSS 410 and EXSS 411; completion of all prerequisite major coursework with a C or better in all major courses; senior status; attendance at informational meeting in semester prior to internship; submission of application during semester prior to internship.*
- PHEC 413 Rehabilitation Techniques in Sport Medicine** 3 cr.
Various aspects of the rehabilitation process for the physically active or athletic population. Goals, techniques, evaluation methods and specific rehabilitation programs covered. Fall. *Prerequisite: ATTR 319.*

HEALTH - ATHLETIC TRAINING

You cannot receive credit for an ATTR course and the same course previously labeled HEED.

COURSE NAME AND COURSE DESCRIPTION CHANGES:

- ATTR 206 Introduction to Athletic Training** 3 cr.
Provides the student interested in Athletic 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. Every semester.
- ATTR 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.
- ATTR 222 Emergency Medical Techniques in Athl. Training** 4 cr.
An introduction to the daily management of the athletic training clinical environment. Fall. AT majors only.
- ATTR 223 Clinical Experiences in Athletic Training I** 2 cr.
An introduction to the daily management of the athletic training clinical environment. Spring. AT majors only.
- ATTR 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 hours lab. AT majors only.
- ATTR 319 Orthopedic Assessment II: Upper Extremity** 4 cr.
General and specific athletic injury assessment procedures. Emphasis is placed on the upper extremity on the head, abdomen, throat and thorax assessment. 3 hrs. lecture, 2 hours lab. AT majors only.
- ATTR 320 Pharmacology and General Medical Conditions** 3 cr.
Pathology and clinical information about various general medical conditions commonly seen in the physically active. Spring.
- ATTR 322 Clinical Experiences in Athletic Training II** 2 cr.
The continued in-depth study of both the theoretical and practical clinical aspects of athletic training. Fall. AT majors only

NEW AND REVISED COURSE DESCRIPTIONS

ATTR 323 Clinical Experiences in Athletic Training III 2 cr.
The continued in-depth study of both the theoretical and practical clinical aspects of athletic training. Spring. AT majors only

ATTR 340 Organization & Administration of Athletic Training 3 cr.
Administration and management strategies in athletic training. Human resource management, financial management, facility design and planning, client management, ethics and legal liability issues. Fall. *Prerequisite:* ATTR 206.

ATTR 408 Therapeutic Modalities in Sports Medicine 4 cr.
The study of both the theoretical and practical usage of various therapeutic modalities. Designed for individuals who routinely treat sports related injuries. 3 hours lab. Spring. *Prerequisite:* ATTR 318. AT Majors only

ATTR 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. 3 hrs. lecture, 2 hrs. lab. Fall.

ATTR 414 Advanced Rehabilitation Techniques in Athletic Training 3 cr.
Advanced study in the science and application of safe rehabilitative exercise techniques for both the general population as well the physically active. Hands on manual-based techniques for patients will be the primary emphasis. Fall. *Prerequisite:* ATTR 413. AT Majors only.

ATTR 422 Clinical Experiences in Athletic Training IV 2 cr.
Summary of CAATE competencies and Role Delineation Study required to prepare for BOC exam. Emphasis is placed on clinical proficiencies/decision making skills. Fall. *Prerequisites:* ATTR 322 and ATTR 323. AT Majors only.

ATTR 423 Clinical Experiences in Athletic Training V 2 cr.
Summary of CAATE competencies and Role Delineation Study required to prepare for BOC exam. Emphasis is placed on clinical proficiencies/decision-making skills. Spring. *Prerequisites:* ATTR 322 and ATTR 323. AT Majors only.

ATTR 450 Evidence-Based Practice in Athletic Training 3 cr.
Scientific experimentation vs. anecdotal case description in athletic training. Student learns to systematically find, appraise and use the most current and valid research findings as the basis for clinical decisions. *Prerequisites:* Senior and permission of instructor.

ATTR 480 Capstone I in Athletic Training 3 cr.
Finalization of the theoretical and clinical application of upper body injury assessment and rehabilitation techniques used by athletic trainers, preparation for BOC exam. Fall.

ATTR 485 Capstone II 3 cr.
Finalization of the theoretical and clinical application of lower body injury assessment and therapeutic modalities used by athletic trainers, athletic nutrition, pharmacology and preparation for BOC exam. Spring. AT majors only

PHYSICS

COURSE DESCRIPTION CHANGE:

PHYS 261 Principles of Physics I: Mechanics 4 cr.
Calculus-based introduction to the theoretical and experimental foundations of physics focusing on mechanics. Topics to include kinematics, dynamics, energy, momentum, rotational dynamics, and continuum mechanics. Intended primarily for physical science, engineering and math majors. Six hours of integrated lecture/lab/discussion per week. Fall. *Corequisite:* MATH 236. GEP Group C

PHYS 262 Principles of Physics II: Electricity and Magnetism 4 cr.
Calculus-based introduction to the theoretical and experimental foundations of physics focusing on Electricity and Magnetism. Topics to include electrostatics, electrodynamics, magnetostatics, electromagnetic induction and Maxwell's equations. Six hours of integrated lecture/lab/discussion per week. Spring. *Prerequisite:* PHYS 261. *Corequisite:* MATH 237.

PHYS 263 Principles of Physics III: Sound & Light 4 cr.
Calculus-based introduction to the theoretical and experimental foundations of physics focusing on sound and light. Topics to include vibration, wave motion, acoustics, geometrical optics, physical optics, and special relativity. Six hours of integrated lecture/lab/discussion per week. Fall. *Prerequisites:* PHYS 262 and MATH 237.

PHYS 264 Principles of Physics IV: Thermodynamics & Modern Physics 3 cr.
Calculus-based introduction to the theoretical and experimental foundations of physics focusing on thermodynamics and modern physics. Topics to include heat, thermodynamics, kinetic theory, atomic physics, and quantum physics. Four hours of integrated lecture/lab/discussion per week. Spring. *Prerequisites:* PHYS 262 and MATH 237.

PHYS 420 Introduction to Computational Physics 3 cr.
Introduction to the methods of computational physics. Explores some of the basic techniques and ideas used to solve physics problems with the aid of computers. Students develop computer programs in a high-level programming language to solve specific problems. Topics include examples from several fields of engineering such as mechanics, heat transfer, fluid dynamics, electricity and acoustics. Variable. *Prerequisites:* PHYS 310, MATH 238, or permission of department chair.

NEW COURSES:

PHYS 304 Computational Techniques 2 cr.
Introduction to and application of the fundamental methods, tools and techniques essential to solve problems in the physical sciences. Regular topics include statistical, mathematical and computational tools; data analysis. LabView software as applied to instrumentation. Additional topics explored will augment student needs and supplement area of current interest in science. One hour lecture, one 2-hr lab integrated. Fall. Also offered as CHEM 304 and ENES 304. *Prerequisites:* CHEM 201 and 202 or COSC 240 or ENEE 114 equivalent, or permission of the instructor.

PHYS 495 Physics Internship 1-4 cr.
A field experience to provide the student with an opportunity to explore career paths in a work setting while applying knowledge learned in the classroom. Throughout the internship student develops professional skills consistent with the program learning goals. Student must enroll in the course before starting the workplace experience. Variable, up to 4 credits. One course credit for 45-hours of work (37.5 hours of clock time) at the internship location. Can be repeated up to 4 credits. *Prerequisites:* Junior standing, approval of the department chair.

PSYCHOLOGY

CHANGE IN CREDITS:**PSYC 389****3 cr.**

Addresses legal and ethical considerations for addition counselors. Difference and similarities among addiction and other helping professional discussed. Variable. *Prerequisites: PSYC 150-151 or permission of instructor.*

POLITICAL SCIENCE

COURSE NUMBER CHANGE:

POSC 455 Public Program Evaluation changed to POSC 353

DELETED COURSE:

POSC 488 Comparative Legal Systems

SUSTAINABILITY STUDIES

NEW COURSE:**SUST 350 Sustainable Agriculture****3 cr.**

Hands-on learning of sustainable agriculture methods as a field of study and a career. Field and practical studies of soils, crops, season extension, plant nutrition, pests and diseases, composting, tractors and equipment, marketing and business management. Numerous field trips to local farms practicing diverse methods. 3 credits. Summer. *Prerequisite: SUST 155 or permission of instructor.*

