REPORT: COMMITTEE ON CURRICULA AND COURSES
(For consideration by the Faculty Senate at its June 15, 2011 meeting.)

Per the USC Policies and Procedures Manual - Academic Affairs section ACAF 2.00 and 2.03 Appendices, any department which has a proposal being recommended by the Committee on Curricula and Courses must have a representative in attendance at the Faculty Senate meeting in which said proposal is to be recommended.

Please contact Jennifer Vendemia (Psychology) in advance of Faculty Senate meeting if errors are noted, either by phone: 777-6738 or e-mail: Vendemia@mailbox.sc.edu.

1. COLLEGE OF ARTS AND SCIENCES

A. African American Studies Program

New courses
AFAM 428A African-American Literature I: to 1903. [=ENGL 428A] (3) Representative works of African-American writers to 1903. Note: All Literature Courses 300 and above require ENGL 101, 102, and one course between ENGL 270-292.

AFAM 428B African American Literature II: 1903-Present. [=ENGL 428B] (3) Representative works of African-American writers from 1903 to the present. Note: All Literature Courses 300 and above require ENGL 101, 102, and one course between ENGL 270-292.

AFAM 438D Studies in Regional Literature. [=ENGL 438D] (3) Authors and literary forms representative of Africa. Note: All Literature Courses 300 and above require ENGL 101, 102, and one course between ENGL 270-292.

AFAM 438E Studies in Regional Literature. [=ENGL 438E] (3) Authors and literary forms representative of the Caribbean. Note: All Literature Courses 300 and above require ENGL 101, 102, and one course between ENGL 270-292.

AFAM 565 African American Theatre. [=ENGL 565, THEA 565] (3) The major movements, figures, plays, and critical strategies that have marked the development of African American theatre in the 19th, 20th, and 21st centuries. Note: All Literature Courses 300 and above require ENGL 101, 102, and one course between ENGL 270-292.

B. Department of Art

Deletion
ARTH 365 History of Cinema I. [=ENGL 474, FILM 365, and THEA 480] (3)
ARTH 366 History of Cinema II. [=ENGL 475, FILM 366, and THEA 481] (3)
C. Department of English Language and Literature

**Addition of cross-listing**

From: ENGL 428A African-American Literature I: to 1903. (3)
To: ENGL 428A African-American Literature I: to 1903 [=AFAM 428A] (3)

From: ENGL 428B African-American Literature II: 1903-Present. (3)
To: ENGL 428B African-American Literature II: 1903-Present. [=AFAM 428B] (3)

From: ENGL 438D Studies in Regional Literature. (3)
To: ENGL 438D Studies in Regional Literature. [=AFAM 438D] (3)

From: ENGL 438E Studies in Regional Literature. (3)
To: ENGL 438E Studies in Regional Literature. [=AFAM 438E] (3)

From: ENGL 565 African American Theatre. [=THEA 565] (3)
To: ENGL 565 African American Theatre. [=AFAM 565, THEA 565] (3)

**Deletion**

ENGL 474 History of Cinema I. [=ARTH 365, FILM 365, and THEA 480] (3)
ENGL 475 History of Cinema II. [=ARTH 366, FILM 366, and THEA 481] (3)

D. Film and Media Studies Program

**Deletion**

FILM 365 History of Cinema I. [=ARTH 365, ENGL 474, and THEA 480] (3)
FILM 366 History of Cinema II. [=ARTH 366, ENGL 475, and THEA 481] (3)

E. Department of Languages, Literatures, and Cultures

**New courses**

JAPA 353 Japanese Culture and Society through Animation. (3) Examination of Japanese culture and contemporary society through studying of popular animations. Taught in English.

PORT 299 Accelerated Portuguese for Speakers of Spanish. (3) Accelerated Portuguese for speakers of Spanish, taught through a communicative approach. Students will develop intermediate-level oral and written communication skills in Portuguese and increase knowledge about multiple aspects of Luso-Brazilian cultures. (Prereq: SPAN 309, advanced proficiency or equivalent in Spanish, or consent of instructor)

F. Marine Science Program

**New course**

MSCI 555 Conservation and Health in Marine Systems. [=ENHS 555] (3) Introduces the field of conservation and explores the intersection between conservation and environmental health with a particular focus on coastal and marine case studies.
G. Department of Theatre and Dance

Deletion
THEA 480 History of Cinema I. [=ARTH 365, ENGL 474, and FILM 365] (3)
THEA 481 History of Cinema II. [=ARTH 366, ENGL 475, and FILM 366] (3)

Addition of cross-listing and note
From: THEA 565 African American Theatre. [=ENGL 565] (3)
To: THEA 565 African American Theatre. [=AFAM 565, ENGL 565] (3)
Note: All Literature Courses 300 and above require ENGL 101, 102, and one course between ENGL 270-292.

H. Women’s and Gender Studies Program

Addition of Distance Education Delivery to existing course
WGST 541 Issues in Women’s Health. [=NURS 541] (3)

2. COLLEGE OF EDUCATION

Department of Instruction and Teacher Education

Change in curriculum. Website 2010-2011 Bulletin – BA in Early Childhood Education – progression requirements.

<table>
<thead>
<tr>
<th>Current</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Early Childhood Education Professional Program</td>
<td>The Early Childhood Education Professional Program</td>
</tr>
<tr>
<td>Upon completion of 60 semester hours of course work, including courses specified by the program area, the candidate may apply for admission to the Professional Program in Early Childhood Education. For admission to the professional program, the candidate must: 1. meet the state basic skills testing requirement; 2. pass the USC Education and Economic Development Act Assessment; 3. achieve an overall GPA of 2.50 or higher; 4. achieve a GPA of 3.00 or higher and no grade lower than C on education courses and field experiences; 5. earn a grade of C or better in specific course work as required by the program area; 6. provide a written endorsement for admission from an instructor in education; 7. provide a written endorsement from an educator outside the University of South Carolina who has worked with the candidate in a practicum setting attesting to the candidate's character and dispositions; 8. submit satisfactory work samples as required by the program area.</td>
<td>Upon completion of 60 semester hours of course work, including courses specified by the program area, the candidate may apply for admission to the Professional Program in Early Childhood Education. For admission to the professional program, the candidate must: 1. meet the state basic skills testing requirement; 2. pass the USC Education and Economic Development Act Assessment; 3. achieve an overall GPA of 2.50 or higher; 4. achieve a GPA of 3.00 or higher and no grade lower than C on education courses and field experiences; 5. earn a grade of C or better in specific course work as required by the program area; 6. provide a written endorsement for admission from an instructor in education; 7. provide a written endorsement from an educator outside the University of South Carolina who has worked with the candidate in a practicum setting attesting to the candidate's character and dispositions; The Early Childhood Internship Admission Requirements</td>
</tr>
</tbody>
</table>
**The Early Childhood Internship Admission Requirements**

For admission to the internship semesters, the candidate must:
1. be admitted to the professional program;
2. achieve an overall GPA of 2.50 or higher;
3. achieve a GPA of 3.00 or higher in all education course work with no grade lower than C;
4. achieve a grade of C or better in specified course work as required by the program area and completed since entry into the professional program;
5. successfully complete criminal background check as required by the S.C. Department of Education by program deadline;
6. earn a grade of B or better in either EDEC 342P or EDEC 443 to meet the dispositions requirement for admission to Internship II. An action plan is required for students who make a grade of C or C+ in either EDEC 342P or EDEC 443.

For admission to the internship semesters, the candidate must:
1. be admitted to the professional program;
2. achieve an overall GPA of 2.50 or higher;
3. achieve a GPA of 3.00 or higher in all education course work with no grade lower than C;
4. achieve a grade of C or better in specified course work as required by the program area and completed since entry into the professional program;
5. successfully complete criminal background check as required by the S.C. Department of Education by program deadline;
6. earn a grade of B or better in either EDEC 342P or EDEC 443 to meet the dispositions requirement for admission to Internship II. An action plan is required for students who make a grade of C or C+ in either EDEC 342P or EDEC 443.

7. Submit satisfactory work sample as required by the program area.

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**Change in Curriculum. Website 2010-2011 Bulletin – BA in Elementary Education – progression requirements.**

<table>
<thead>
<tr>
<th>Current</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Elementary Education</strong></td>
<td><strong>Elementary Education</strong></td>
</tr>
<tr>
<td>The Department of Instruction and Teacher Education offers a program leading to a B.A. degree in elementary education. Students successfully completing all degree and certification requirements are eligible to apply for a professional credential to teach grades 2 through 6.</td>
<td>The Department of Instruction and Teacher Education offers a program leading to a B.A. degree in elementary education. Students successfully completing all degree and certification requirements are eligible to apply for a professional credential to teach grades 2 through 6.</td>
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<td><strong>The Elementary Education Professional Program</strong></td>
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</tr>
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</tr>
<tr>
<td>For admission to the professional program, the candidate must:</td>
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</tr>
<tr>
<td>1. successfully meet the state basic skills testing requirement;</td>
<td>1. meet the state basic skills testing requirement;</td>
</tr>
<tr>
<td>2. pass the USC Education and Economic Development Act Assessment;</td>
<td>2. pass the USC Education and Economic Development Act Assessment;</td>
</tr>
<tr>
<td>3. achieve an overall GPA of 2.50 or higher;</td>
<td>3. achieve an overall GPA of 2.50 or higher;</td>
</tr>
<tr>
<td>4. achieve a GPA of 3.00 or higher and no grade lower than C in education courses and field</td>
<td>4. achieve a GPA of 3.00 or higher and no grade lower than C in education courses and field</td>
</tr>
</tbody>
</table>
lower than C in education courses and field experiences;
5. earn a grade of C or better in specific course work as required by the program area;
6. comply with criminal background check and health screening requirements;
7. provide a written endorsement for admission from an instructor in education;
8. provide a written endorsement from an educator outside the University of South Carolina who has worked with the candidate in a practicum setting attesting to the candidate's professionalism and character;
9. submit an essay addressing the dispositions (stewardship, intellectual spirit, integrity, and justice) of the College of Education Conceptual Framework;
10. submit two work samples with a narrative reflection providing evidence of the student's knowledge and skills in the following dimensions of the College of Education Conceptual Framework: human growth and development, standards, cultural influences, self-knowledge, technology, relationship building, and communication (to be completed while enrolled in EDEL 505).

The Elementary Education Internship Admission Requirements

For admission to the internship semesters, the candidate must:

1. be admitted to the professional program;
2. achieve an overall GPA of 2.50 or higher;
3. achieve a GPA of 3.00 or higher in all education course work;
4. complete EDEL 440, 441, 505, and 505P and EDRD 430 with grades of B or better;
5. achieve a grade of C or better in specific course work as required by the program area;
6. successfully complete the health screening and the criminal background check that are required for S.C. Teacher Certification.

In addition to the above, for admission to EDTE 590 A, B, and C, a GPA of 3.00 or higher is required in EDEL 570 and EDEL 450, 460, 506, and 571.

<table>
<thead>
<tr>
<th>experiences;</th>
<th>earn minimum required grade in specific course work as required by the program area, including a grade of B or better in EDEL 505 &amp; 505P;</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. provide a written endorsement for admission from an instructor in education;</td>
<td>7. provide a written endorsement from an educator outside the University of South Carolina who has worked with the candidate in a practicum setting attesting to the candidate's professionalism and character;</td>
</tr>
<tr>
<td>8. submit an essay addressing the dispositions (stewardship, intellectual spirit, integrity, and justice) of the College of Education Conceptual Framework.</td>
<td></td>
</tr>
</tbody>
</table>

The Elementary Education Internship Admission Requirements

For admission to the senior internship semesters, the candidate must:

1. be admitted to the professional program;
2. achieve an overall GPA of 2.50 or higher;
3. achieve a GPA of 3.00 or higher in all education course work;
4. complete EDEL 441 and EDRD 430 with grades of B or better;
5. achieve a grade of C or better in specific course work as required by the program area;
6. successfully complete the health screening and the criminal background check that are required for S.C. Teacher Certification as required by the S.C. Department of Education by program deadline.

In addition to the above, for admission to EDTE 590 A, B, and C, a GPA of 3.00 or higher is required in EDEL 570, 571, 440, 450, 460, and EDRD 431.
Change in curriculum. Website 2010-2011 Bulletin – BA in Elementary Education – degree requirements.

<table>
<thead>
<tr>
<th>Current</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Elementary Education, B.A.</strong>&lt;br&gt;Degree Requirements&lt;br&gt;(Total Semester Hours: 127-129)&lt;br&gt;1. General Education (49 Hours)&lt;br&gt;Liberal Arts (33 Hours)</td>
<td><strong>Elementary Education, B.A.</strong>&lt;br&gt;Degree Requirements&lt;br&gt;(Total Semester Hours: 127-129)&lt;br&gt;1. General Education (49 Hours)&lt;br&gt;Liberal Arts (33 Hours – grade of C or better required in ENGL 101; ENGL 102; 3 out of 4 of the required courses from history, political science, economics, and geography)</td>
</tr>
<tr>
<td>English/Speech (9 Hours)&lt;br&gt;☐ ENGL 101 - Critical Reading and Composition&lt;br&gt;☐ ENGL 102 - Rhetoric and Composition (or higher level)&lt;br&gt;Select one course (3 Hours) from the following:&lt;br&gt;☐ ENGL 282 - Fiction&lt;br&gt;☐ ENGL 283 - Themes in British Writing&lt;br&gt;☐ ENGL 284 - Drama&lt;br&gt;☐ ENGL 285 - Themes in American Writing&lt;br&gt;☐ SPCH 140 - Public Communication</td>
<td>English/Speech (9 Hours)&lt;br&gt;☐ ENGL 101 - Critical Reading and Composition&lt;br&gt;☐ ENGL 102 - Rhetoric and Composition (or higher level)&lt;br&gt;Select one course (3 Hours) from the following:&lt;br&gt;☐ ENGL 282 - Fiction&lt;br&gt;☐ ENGL 283 - Themes in British Writing&lt;br&gt;☐ ENGL 284 - Drama&lt;br&gt;☐ ENGL 285 - Themes in American Writing&lt;br&gt;☐ SPCH 140 - Public Communication</td>
</tr>
<tr>
<td>History (3 Hours)&lt;br&gt;☐ HIST 111 - United States History to 1865&lt;br&gt;☐ HIST 112 - United States History Since 1865&lt;br&gt;☐ HIST 409 - The History of South Carolina, 1670-1865&lt;br&gt;☐ HIST 410 - History of South Carolina Since 1865</td>
<td>History (3 Hours)&lt;br&gt;☐ HIST 111 - United States History to 1865&lt;br&gt;☐ HIST 112 - United States History Since 1865&lt;br&gt;☐ HIST 409 - The History of South Carolina, 1670-1865&lt;br&gt;☐ HIST 410 - History of South Carolina Since 1865</td>
</tr>
<tr>
<td>Fine Arts (3 Hours)&lt;br&gt;☐ ARTE 101 - Introduction to Art&lt;br&gt;☐ ARTE 360 - Interdisciplinary Relationships in the Arts</td>
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</tr>
<tr>
<td>☐ MUSC 110 - Introduction to Music&lt;br&gt;☐ MUSC 140 - Jazz and American Popular Music</td>
<td>☐ MUSC 110 - Introduction to Music&lt;br&gt;☐ MUSC 140 - Jazz and American Popular Music</td>
</tr>
<tr>
<td>☐ THEA 522 - Creative Drama&lt;br&gt;☐ THEA 526 - Children's Theatre</td>
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</tr>
<tr>
<td>Political Science (3 Hours)&lt;br&gt;☐ POLI 101 - Controversies in World Politics&lt;br&gt;☐ POLI 201 - American National Government</td>
<td>Political Science (3 Hours)&lt;br&gt;☐ POLI 101 - Controversies in World Politics</td>
</tr>
<tr>
<td>Category</td>
<td>Requirements</td>
</tr>
<tr>
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</tr>
<tr>
<td><strong>Economics (3 Hours)</strong></td>
<td>□ Other approved course □ ECON 221 - Principles of Microeconomics □ ECON 222 - Principles of Macroeconomics □ ECON 224 - Introduction to Economics</td>
</tr>
<tr>
<td><strong>Geography (3 Hours)</strong></td>
<td>□ GEOG 121 - Lands and People of the World □ GEOG 210 - Peoples, Places, and Environments</td>
</tr>
<tr>
<td><strong>Foreign Languages</strong></td>
<td>Students shall demonstrate in one foreign language the ability to comprehend the topic and main ideas in written and, with the exception of Latin and Ancient Greek, spoken texts on familiar subjects. This ability can be demonstrated by achieving a score of 2 or better on a USC foreign language test. Those failing to do so must satisfactorily complete equivalent study of a foreign language at USC.</td>
</tr>
<tr>
<td><strong>Electives (9 Hours)</strong></td>
<td>Recommended areas include Anthropology, African American studies, Art, English, Geography, Sociology, Psychology, Music, Media Arts, or Theatre and Speech or UNIV 101.</td>
</tr>
<tr>
<td><strong>Science and Mathematics (16 Hours)</strong></td>
<td>□ MATH 122 - Calculus for Business Administration and Social Sciences □ STAT 110 or STAT 201</td>
</tr>
<tr>
<td><strong>Natural Sciences (10 Hours)</strong></td>
<td>At least one science course must include a lab. Life Sciences (3-4 Hours) 3-4 hours from the following: □ BIOL 110 - General Biology □ BIOL 120 - Human Biology and BIOL 120L</td>
</tr>
<tr>
<td><strong>Physical Sciences (3-4 Hours)</strong></td>
<td>□ POLI 201 - American National Government □ Other approved course</td>
</tr>
</tbody>
</table>
3-4 hours from the following:
- ASTR 111 - Descriptive Astronomy I and ASTR 111A
- CHEM 105 - Chemistry and Modern Society I
- PHYS 101 - The Physics of How Things Work I and PHYS 101L

Earth Sciences (3-4 Hours)
3-4 hours from the following:
- ENVR 101 - Introduction to the Environment and ENVR 101L
- ENVR 200 - Natural History of South Carolina
- GEOL 101 - Introduction to the Earth
- GEOL 103 - Environment of the Earth
- GEOL 201 - Observing the Earth
- MSCI 210 - Oceans and Man and MSCI 210L
- MSCI 215 - Coastal Environments of the Southeastern U.S and MSCI 215L

2. Specialized Content Preparation (18 Hours)
- SLIS 220 - Using Information Resources or equivalent course approved by the advisor.
- MATH 221 - Basic Concepts of Elementary Mathematics I
- MATH 222 - Basic Concepts of Elementary Mathematics II
- ENGL 431 or SLIS 325
- PEDU 575 - Physical Education for the Classroom Teacher

Select one course (3 Hours) from the following:
- ARTE 520 - Art for Elementary Schools
- ARTE 530 - Art of Children
- MUED 454 - Music for Young Children

3. Education (60 hours)

Education Core (46 Hours)
- EDTE 201 - Classroom Inquiry with Technology
- EDTE 400 - Learning Through Community Service
- EDFN 300 - Schools In Communities
- EDPY 401 - Learners and the Diversity of Learning
- EDPY 401P - Practicum: Learners and the Diversity of Learning
- EDRM 423 - Introduction to Classroom Assessment

Earth Sciences (3-4 Hours)
3-4 hours from the following:
- ENVR 101 - Introduction to the Environment and ENVR 101L
- ENVR 200 - Natural History of South Carolina
- GEOL 101 - Introduction to the Earth
- GEOL 103 - Environment of the Earth
- GEOL 201 - Observing the Earth
- MSCI 210 - Oceans and Man and MSCI 210L
- MSCI 215 - Coastal Environments of the Southeastern U.S and MSCI 215L

2. Specialized Content Preparation (18 Hours—grade of C or better required)
- SLIS 220 - Using Information Resources or equivalent course approved by the advisor.
- MATH 221 - Basic Concepts of Elementary Mathematics I
- MATH 222 - Basic Concepts of Elementary Mathematics II
- ENGL 431 or SLIS 325
- PEDU 575 - Physical Education for the Classroom Teacher

Select one course (3 Hours) from the following:
- ARTE 520 - Art for Elementary Schools
- ARTE 530 - Art of Children
- MUED 454 - Music for Young Children

3. Education (60 hours – grade of B or better required in EDEL 505, 505P, 441, and EDRD 430 – grade of C or better required in all other Education courses)

Education Core (15 Hours)
- EDTE 201 - Classroom Inquiry with Technology
- EDFN 300 - Schools In Communities
- EDPY 401 - Learners and the Diversity of Learning
- EDPY 401P - Practicum: Learners and the Diversity of Learning
- EDRM 423 - Introduction to Classroom Assessment
Change in credit hours and description

From: EDRD 430 Elementary Literacy Instruction I. (5) Examination and implementation of the key concepts, content, goals, and strategies in teaching reading and the language arts in the elementary school.

To: EDRD 430 Elementary Literacy Instruction I. (6) Examination and implementation of the key concepts, content, goals, and strategies in teaching reading and the language arts in the elementary school. Students will work with elementary children in a school setting to learn literacy concepts and instructional strategies.

3. COLLEGE OF ENGINEERING AND COMPUTING

A. Biomedical Engineering Program

Change in curriculum. Website 2010-2011 Bulletin – Biomedical Engineering Program
Current

Technical and Biomedical Electives (21 Hours)

In addition to the required basic science and biomedical engineering courses listed above, students are also required to take 21 credit hours of science and engineering electives, as least 9 of which must be biomedical engineering electives. Of these 9 hours in biomedical engineering electives, at least 3 credits must come from BMEN 499 Independent Research. A listing of acceptable elective courses will be maintained in the department offices.

The technical electives listing may include but is not limited to the following:

- BIOL 530 — Histology
- BIOL 541 or CHEM 550 — Principles of Biochemistry
- CHEM 550 — Principles of Biochemistry
- CHEM 541 or CHEM 542 — Physical Chemistry
- ECHE 321 — Heat Flow Analysis
- ECHE 322 — Mass Transfer
- ECHE 430 — Chemical Engineering Kinetics
- ECHE 440 — Separation Process Design
- ECHE 550 — Chemical Process Dynamics and Control
- ECHE 572 — Polymer Processing
- EMCH 526 — Control Theory in Mechanical Engineering
- EMCH 532 — Intermediate Dynamics
- EMCH 554 — Intermediate Heat Transfer
- EMCH 560 — Intermediate Fluid Mechanics
- MATH 544 — Linear Algebra

Proposed

Technical Electives (9 Hours)

Students must take 9 credit hours of technical electives, which are to be selected from a preapproved list that includes both science and engineering courses. Of these 9 credit hours, at least 3 credit hours must come from courses offered by the College of Engineering and Computing. A listing of acceptable technical electives is shown below. This list is also available in the Biomedical Engineering Advisement Booklet as well as via a link from the Biomedical Engineering website. In addition, this list is maintained in the Biomedical Engineering office.

<table>
<thead>
<tr>
<th>BIOL 250 Microbiology</th>
<th>BIOL 250L Microbiology Laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 303 Fundamental Genetics</td>
<td>BIOL 415 Comparative Vertebrate Anatomy</td>
</tr>
<tr>
<td>BIOL 460 General Physiology</td>
<td>BIOL 460L General Physiology Laboratory</td>
</tr>
<tr>
<td>BIOL 505 Developmental Biology</td>
<td>BIOL 505L Developmental Biology Laboratory</td>
</tr>
<tr>
<td>BIOL 530 Histology</td>
<td>BIOL 541 or CHEM 550 Principles of Biochemistry</td>
</tr>
<tr>
<td>BIOL 541L or CHEM 550L Principles of Biochemistry Laboratory</td>
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</tr>
<tr>
<td>BIOL 545 or CHEM 556 Biochemistry/Molecular Biology I</td>
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<tr>
<td>BIOL 546 or CHEM 556 Biochemistry/Molecular Biology II</td>
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<tr>
<td>BIOL 620 Immunology</td>
<td>BIOL 635 Neurobiology</td>
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<tr>
<td>BIOL 653 Bioinformatics</td>
<td>BIOL 655 Biotechnology</td>
</tr>
<tr>
<td>BIOL 656 Experimental Biotechnology</td>
<td>BIOL 665 Human Molecular Genetics</td>
</tr>
<tr>
<td>BIOL 690 Ultramicroscopy</td>
<td>CHEM 321 Analytical Chemistry</td>
</tr>
<tr>
<td>CHEM 321L Quantitative Analysis Laboratory</td>
<td>CHEM 332L Essentials of Organic Chemistry Laboratory</td>
</tr>
<tr>
<td>CHEM 334 Organic Chemistry II</td>
<td>CHEM 334L Comprehensive Organic Chemistry Laboratory II</td>
</tr>
<tr>
<td>CHEM 340 Elementary Biophysical Chemistry</td>
<td>CHEM 340L Elementary Biophysical Chemistry</td>
</tr>
</tbody>
</table>
The biomedical engineering electives listing ay include but is not limited to the following courses (courses in bold are to be developed):

- **BMSC 740**—Biological Microscopic Imaging
- **ECHE 389**—Special Topics in Chemical Engineering
- **EMCH 580**—Mechanics of Solid Biomaterials
- **EMCH 792**—Cell Mechanics
- **EXSC 535**—Biomechanics of Human Movement
- **BMEN 499**—Independent Research
- **PSYC**—Cognitive Neuroscience

Bioreactor Design and Cell Culture Technologies
Current Perspectives in Biomedical Industry
Design for Biomedical Applications
Hydrogels and Their Applications in Biomedical Engineering
Immunology for Biomedical Engineers
Introduction to Drug Delivery
Materials Characterization Techniques in Biomedical Engineering
Mechanics of the Cardiovascular System
Neurodegenerative Disorders in Neuroscience
Principles of Controlled Release Systems for Bioactive Agents
Principles of Pathology
Tissue Engineering

- **CHEM 541** Physical Chemistry I
- **CHEM 541L** Physical Chemistry Laboratory
- **CHEM 542** Physical Chemistry II
- **CHEM 542L** Physical Chemistry Laboratory
- **CHEM 545** Physical Biochemistry
- **EXSC 530** Physiology of Muscular Activity
- **ECHE 300** Chemical Process Principles
- **ECHE 321** Heat Flow Analysis
- **ECHE 322** Mass Transfer
- **ECHE 430** Chemical Engineering Kinetics and Reactor Design
- **ECHE 440** Separations
- **ECHE 550** Chemical Process Dynamics and Control
- **EMCH 516** Control Theory in Mechanical Engineering
- **EMCH 532** Intermediate Dynamics
- **EMCH 554** Intermediate Heat Transfer
- **EMCH 560** Intermediate Fluid Mechanics
- **CSCE 206** Scientific Applications Programming
- **CSCE 350** Data Structures and Algorithms
- **CSCE 555** Algorithms in Bioinformatics
- **MATH 520** Ordinary Differential Equations
- **MATH 521** Boundary Value Problems and Partial Differential Equations
- **MATH 524** Nonlinear Optimization
- **MATH 526** Numerical Linear Algebra or MATH 544 Linear Algebra
- **MATH 546** Algebraic Structures I
- **MATH 547** Algebraic Structures II
- **MATH 550** Vector Analysis
- **MATH 552** Applied Complex Variables

**Biomedical Engineering Electives (12 Hours)**

Students must take 12 credit hours of Biomedical Engineering electives. Of these 12 credit hours, at most 3 credit hours may come from BMEN 499 Independent Research. A listing of acceptable Biomedical Engineering electives is shown below. This list is also available in the Biomedical Engineering Advisement Booklet as well as via a link from the Biomedical Engineering website. In addition, this list is maintained in the Biomedical Engineering office.

- **BMEN 342** Infectious Disease and Immunology for Biomedical Engineers
- **BMEN 389** Special Topics in Biomedical Engineering
New courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMEN 342</td>
<td>Infectious Disease &amp; Immunology for Biomedical Engineers. (3)</td>
<td>3</td>
<td>Qualitative and quantitative aspects of infectious diseases; principles of diagnosis and control. Elements of human immunological response and immune disorders; influence on biomedical engineering of explants and implants. (Prereq: BIOL 101)</td>
</tr>
<tr>
<td>BMEN 392</td>
<td>Fundamentals of Biochemical Engineering. (3)</td>
<td>3</td>
<td>Biological systems are used in chemical industries for a wide variety of applications, including the formation of important products (e.g. pharmaceuticals), sensor technology, degradation, and waste water treatment. This class will provide an overview of materials needed to investigate and model biosystems. (Prereq: CHEM 333)</td>
</tr>
<tr>
<td>BMEN 546</td>
<td>Delivery of Bioactive Agents. (3)</td>
<td>3</td>
<td>Routes of administration; mechanisms of drug absorption and biological barriers; pharmacokinetic modeling of drug distribution; drug excretion and biotransformation; design and evaluation of controlled release systems, targeted release systems, and responsive release systems. (Prereq: MATH 142, BIOL 302, CHEM 333, upper division standing)</td>
</tr>
<tr>
<td>BMEN 572</td>
<td>Tissue Engineering. (3)</td>
<td>3</td>
<td>Molecular basis of bioregenerative engineering; biomaterial design; biocompatibility assessment; cell isolation and characterization; rapid prototyping, scaffold fabrication, and biofabrication; protein and gene delivery; bioreactor design; transport in</td>
</tr>
</tbody>
</table>
biological tissues; applications of tissue engineering in regenerative medicine. (Prereq: upper division standing)

B. Department of Mechanical Engineering

Change in description
From: EMCH 516 Control Theory in Mechanical Engineering. (3) An introduction to closed-loop control systems; development of concepts, including transfer function, feedback, frequency response, and system stability by examples taken from mechanical engineering practice; control system design methods.
To: EMCH 516 Control Theory in Mechanical Engineering. (3) An introduction to closed-loop control systems; development of concepts, including transfer function, feedback, frequency response, and system stability by examples taken from mechanical engineering practice; control system design methods. Also an introduction to programmable logic controllers (PLCs).

4. COLLEGE OF HOSPITALITY, RETAIL, AND SPORT MANAGEMENT

A. Hotel, Restaurant, and Tourism

New course
HRTM 428 Sustainable Foodservice Systems. (3) Factors affecting the food supply in the United States and world. The class will explore the economic, political, legal, and societal forces affecting the distribution system of our food supply. (Prereq: HRTM 228)
Effective: Spring 2012

HRTM 470 Current Issues in Nutrition. (3) Basic nutrition concepts as a foundation to address nutrition, health trends, concerns, and current nutritional issues in the modern world. (Prereq: HRTM 340)
Effective: Spring 2012

HRTM 575 Advanced Topics in Wine. (3) A viticultural and enological study of wine and wine regions around the world; from the vineyard to the table including grape varietals, wine regions and wine service. (Prereq: HRTM 475 or permission of instructor)
Effective: Spring 2012
Restriction: students must be 21 years old

Change in course number, cross-listing, prerequisite and addition of Distance Education Delivery to existing course
From: HRTM 484 Tourism Information Technology Issues. (3) (Prereq: TSTM 264)
To: HRTM 584 Tourism Information Technology Issues. [=ITEC 584] (3)
(Prereq: ITEC 264 or equivalent)
Effective: Spring 2012
B. Department of Retailing

**Change in title**

From: RETL 115 Fashion Through the Ages. (3)
To: RETL 115 Fashion Through the Ages: 3000 B.C. to 1800 A.D. (3)

C. Integrated Information Technology Program

**Change in title, cross-listing, description and addition of Distance Education Delivery to existing course**

From: ITEC 584 Hospitality and Tourism Technology. (3) Addresses information technology systems impacting hospitality and tourism industries. Topics include electronic markets, reservation systems, knowledge networks, property management, employee tacking systems, and advanced e-tourism systems including mobile smart technologies.
(Prereq: ITEC 264 or equivalent)
To: ITEC 584 Tourism Information Technology Issues. [=HRTM 584] (3) Information technologies such as e-commerce, e-marketing, and e-research are examined, critiqued, and applied within a tourism context.
(Prereq: ITEC 264 or equivalent)
**Effective: Spring 2012**

5. SCHOOL OF MUSIC

**New courses**

MUSC 571 Digital Audio Technology. (3) A study of the theory and practice of digital audio technology including analog to digital conversion, digital storage, error correction, transmission, basic digital signal processing, and synchronization. (Prereq: MUSC 365, permission of instructor)

MUSC 572 Advanced Audio Topics. (3) A study of the theory and practice of audio topics such as digital signal processing, psychoacoustics, data compression, sound reinforcement systems, wireless transmission, large scale system integration, and emerging technologies. (Prereq: MUSC 571, permission of instructor)

6. COLLEGE OF NURSING

**Change in title, prerequisite and addition of Distance Education Delivery to existing course**

From: NURS 201 Introduction to Human Genetics for Healthcare Professionals. (3)
(Prereq: admission into upper-division nursing)
To: NURS 201 Introduction to Human Genetics: A Clinical Approach and Emphasis. (3)

**Change in prerequisite**

From: NURS 216 Biophysical Pathology. (3) (Prereq: CHEM 102, NURS 220, and BIOL 243 or EXSC 223)
To: NURS 216 Biophysical Pathology. (3) (Prereq: CHEM 102, NURS 220, and BIOL
244 or EXSC 224)

Addition of Distance Education Delivery to existing course
NURS 541 Issues in Women’s Health. [=WGST 541] (3)

7. ARNOLD SCHOOL OF PUBLIC HEALTH

A. Department of Environmental Health Sciences
New courses
ENHS 555 Conservation and Health in Marine Systems. [=MSCI 555] (3) Introduces the field of conservation and explores the intersection between conservation and environmental health with a particular focus on coastal and marine case studies.

ENHS 592 Advanced Special Topics in Environmental Health. (1-3) Emerging issues and topics concerning environmental health. May be repeated as content varies by suffix and title up to a total of 9 credit hours.

B. Department of Exercise Science
New courses
EXSC 541 Physiological Basis for Strength and Conditioning. (3) Investigation on the physiological basis for strength and conditioning. Principles of strength and conditioning through lecture based learning, demonstrations, and through laboratory activities. (Prereq: EXSC 530 with a grade of C or better; or consent of instructor)

EXSC 669 Skeletal Muscle Physiology: Form and Function. (3) Skeletal muscle physiology and exercise through select laboratory experiences and discussion of related research literature. (Prereq: Students must pass EXSC 530 and 530L with a grade of C or better)

Grading System: Standard and Not Auditable

EXSC 695 Writing and Presenting in Research. (3) The research process in Exercise Science through participation, presentation, and discussion of current research. (Prereq: EXSC 224)

8. SYSTEM AFFAIRS AND EXTENDED UNIVERSITY

Palmetto Programs
Addition of Distance Education Delivery to existing courses
ANTH 209 Introduction to Folklore. (3)
ENGL 412 Victorian Literature. (3)
ENGL 422 American Literature 1860-1910. (3)
PSYC 430 Survey of Social Psychology. (3)
SOCY 312 Bureaucracy and Modern Society. (3)
SOCY 340 Social Problems. (3)
SOCY 357  Sociology of Education. (3)