1-21-1999

Undergraduate Council Minutes of Meeting January 21, 1999

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THE UNIVERSITY OF TENNESSEE, KNOXVILLE
UNDERGRADUATE COUNCIL

MINUTES OF MEETING
January 21, 1999

Members present were: David Anderson, Monique Anderson, Asa Bishop, Mary Dale Blanton, Tom George, Fred Gilliam, Robert Hinde, Mary Holcomb, Buck Jones, Faye Julian, Suzanne Kurth, Frank Masincupp, Anne Mayhew, Marian Moffett, Tracy Moir-McClean, Johnie Mozingo, Andrew Norris, Robert Peterson, Paul Pinckney, Max Robinson, Gary Schneider, Frank Spicuzza, Linda Tober, Katherine Todd, and Bill Woodcock.

Members absent were: Roxanne Hovland, Laura Howes, Paula Kaufman, John Lounsbury, Robert Maddox, Linda Painter, Caleb Riser, Carol Seavor, and Sharrie Williams.

Proxies attending were: Don Dareing (Frank Speckhart), Delores Smith (Sarah DeYoung), and Dwight Teeter (Eric Haley).

Julian called the meeting to order at 1:30 p.m.

I. Announcements

Julian presented information on the Standing Committee on General Education. The charge to the committee and its membership are found on page 12249.

Tober announced a Web site is being set up for Undergraduate Council. Members will be notified of the address as soon as the site is ready for use.

II. Financial Impact Statement

Julian noted that the statement resulted from a meeting with Vice Chancellor Peters. The statement appears on page 12250.

III. Curricular Materials

A. College of Agricultural Sciences and Natural Resources.
   Masincupp and Schneider presented changes from the College. The material was approved with minor revisions to the new Food Science and Technology concentrations.

B. College of Arts and Sciences.
   Mayhew presented the changes from the College. After some discussion, the material was approved with minor revision to include potential financial impact.

C. College of Business Administration.
   Council approved the material as presented by M. Anderson.
D. College of Communications.
Material presented by Teeter was approved by the Council.

E. College of Education.
George presented changes from the College. The material was approved by Council.

F. College of Engineering.
Gilliam presented the changes from the College. Extended discussion of the material included financial impact of required Speech Communications, Philosophy, and English courses; the improved general education component; and the new major in Computer Engineering. Tober noted that because the processes of approval for new majors requires Board of Trustees approval as well as that of the THEC, the effective date for the new major cannot be Fall of 1999. Gilliam stated that the general education requirements were a result of new accreditation standards and the desire of the faculty to improve that component of its curriculum. It was noted that the new general education requirements offered significant improvement and brought the College closer to that of the rest of the University, but that would also increase the burdens of already over-burdened departments in the Colleges of Arts and Sciences and Communications. The Council finally approved the revised material contingent upon resolution of financial impact with Vice Chancellor Peters.

G. College of Human Ecology.
Blanton presented changes from the College. Council approved the material with minor revisions.

H. College of Nursing.
Changes presented by Mozingo were approved by the Council.

IV. Courses Not Taught in Four or More Years
The courses to be dropped were approved with the exception of two from Math and three from Human Ecology.

All material requiring Faculty Senate approval appears on page 12251 through page 12388.

The meeting was adjourned at 4:30 p.m.

Respectfully submitted,

Linda M. Tober
Secretary to the Undergraduate Council
STANDING COMMITTEE ON GENERAL EDUCATION

During fall semester 1998, the Undergraduate Council voted to establish a standing committee on General Education. The initial charge of the committee is twofold. First, the committee is asked to recommend the adoption, modification, or substitution for the following description of General Education offered in the report of a 1998 *ad hoc* committee on General Education:

**General Education is a set of skills** (i.e., mathematics, use of language-oral and written) so essential that they transcend all colleges and curricula, and **competencies** (i.e., information competency, technology, natural science, the arts, foreign language, multicultural/integrative studies, humanities/social science/historical studies) that have some characteristics that cross all disciplines but which can be taught in diverse ways.

Secondly, the committee is asked to recommend general education requirements for the UTK campus. The starting point for the discussions would likely be the existing general education requirements and the proposal offered by the *ad hoc* committee. The Committee is asked to present a progress report to Undergraduate Council and to Collegiate Deans by the end of spring semester, 1999. In its deliberations, the committee should consider a general education program that will expedite student graduation and one that does not penalize students who move across colleges.

Once a plan for general education is in place, this standing committee will review and recommend approval or denial of courses proposed to meet general education requirements.

Committee members are:
Fred Gilliam (chair) - Engineering
Ann Mayhew - Arts and Sciences
Tom George - Education
Frank Masincupp - Agriculture
Max Robinson - Architecture
Asa Bishop - Engineering
Mary Dale Blanton - Human Ecology
Frank Spicuzza - Social Work
Paula Kaufman - Libraries
Jan Williams - Business
William Woodcock - Army ROTC
John Flatt - Student (SGA)
Linda Tober - UAA (ex officio)

One-third of the members will serve for one year; one-third will serve two years, and the remaining will serve three year terms. (Eventually all faculty appointments will be for three years.) Length of service for members of the first committee will be determined at the committee’s first meeting.
FINANCIAL IMPACT STATEMENT

In all curricular proposals, financial impact must be considered. When one college’s curricular proposals affect the schedule of offerings in another college (e.g., when one college proposes to require a course offered by another college), discussion of the financial implications and their resolution must begin prior to the meeting of the Undergraduate Council. Any approvals by the Undergraduate Council are contingent upon the resolution of financial impact.
MEMORANDUM

Date: December 18, 1998

To: Dr. Linda Tober, Ass’t. Dean
Undergraduate Academic Affairs

From: Gary Schneider
Associate Dean

Subject: Proposed College changes in Curriculum

Please find attached the proposed curriculum changes from seven of our academic departments:

Agricultural and Extension Education
Agricultural and Biosystems Engineering
Animal Science

Food Science and Technology
Forestry, Wildlife and Fisheries
Ornamental Horticulture and Landscape Design

Plant and Soil Sciences

All of the proposed changes have been approved by the appropriate departmental faculty, College Undergraduate Council, and the College faculty. We request that these proposals be forwarded to the University Undergraduate Curriculum Committee for their counsel and approval. All changes are to become effective Fall, 1999.

One hardcopy of each departmental proposal is provided, along with a disk containing the collective information found in these proposals.
AGRICULTURAL AND EXTENSION EDUCATION
CURRICULUM CHANGE TO BE EFFECTIVE FALL 1999

We were recently informed that the College of Education no longer requires a physical education elective for certification. Therefore, the Department of Agricultural and Extension Education would like to submit the following change in its curriculum effective Fall 1999. This will allow students in the department to take one additional hour of agricultural electives.

Drop:

Physical Education Elective ................................................................. 1 hour

Page 55 - Sophomore Year - 1998-1999 Catalog

Add:

Agricultural Elective .............................................................................. 1 hour

Page 55 - Senior Year - 1998-1999 Catalog

DEPARTMENT OF AGRICULTURAL AND BIOSYSTEMS ENGINEERING

Biosystems Engineering

Revise course description:

303 Transport Processes in Biological Systems (3)
Analysis of biothermal systems with emphasis on thermal energy and mass transfer. Thermodynamics including psychrometrics, conduction and convection heat transfer, and mass transfer. Prereq: Nuclear Engineering 203 or Mechanical Engineering 331 or BioChemistry 471. Sp

Revise prerequisite:

423 Irrigation and Waste Management System Design (3)
Prerequisites: 315, Civil Engineering 390 (Formerly: 340, 341)

Effective Fall 1999

On page 56 of the 1998-1999 Undergraduate Catalog, revise the three concentrations of the Biosystems Engineering curriculum as shown in bold italics on the following pages. A summary of the changes is as follows:
1. Replace the four Basic Engineering courses in the freshman year (12 hours) with the two Engineering Fundamentals courses (12 hours).
2. Add a footnote regarding history, humanities, social sciences electives to all three concentrations.
3. Add a footnote regarding thermodynamics electives to the Biological Engineering concentration.
4. Correct punctuation of footnote 3 for the Agricultural Engineering concentration.
5. Drop reference to zoology (no longer offered) in footnote 3 of the Biological Engineering concentration.
6. Replace *Mechanical Engineering 331* with *Thermodynamics Elective* in the Agricultural Engineering and Food Engineering concentrations. Add a footnote indicating the acceptable electives for the two concentrations.
7. Add *NE 203 Thermodynamics* to footnote 6 for the Biological Engineering concentration.

To:

**BIOSYSTEMS ENGINEERING WITH CONCENTRATION IN AGRICULTURAL ENGINEERING**

<table>
<thead>
<tr>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td></td>
</tr>
<tr>
<td><em>Engineering Fundamentals 101, 102</em></td>
<td>12</td>
</tr>
<tr>
<td>Biosystems Engineering 103, 104</td>
<td>2</td>
</tr>
<tr>
<td>Chemistry 120</td>
<td>4</td>
</tr>
<tr>
<td>¹English 101, 102</td>
<td>6</td>
</tr>
<tr>
<td>¹²Mathematics 141, 142</td>
<td>8</td>
</tr>
<tr>
<td>Sophomore</td>
<td></td>
</tr>
<tr>
<td>Agriculture 101</td>
<td>3</td>
</tr>
<tr>
<td>Biosystems Engineering 201</td>
<td>1</td>
</tr>
<tr>
<td>³Bioscience Elective</td>
<td>4</td>
</tr>
<tr>
<td>Engineering Science 231, 321</td>
<td>6</td>
</tr>
<tr>
<td>⁷Historical Studies Elective</td>
<td>3</td>
</tr>
<tr>
<td>⁷Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>Chemistry 130</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics 200, 231, 241</td>
<td>8</td>
</tr>
<tr>
<td>Physics 231</td>
<td>3</td>
</tr>
<tr>
<td>Junior</td>
<td></td>
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<tr>
<td>Biosystems Engineering 303, 451</td>
<td>7</td>
</tr>
<tr>
<td>⁴Biosystems Engineering Core Electives</td>
<td>6</td>
</tr>
<tr>
<td>Electrical Engineering 301</td>
<td>3</td>
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<tr>
<td>⁵Fluid Science Elective</td>
<td>4</td>
</tr>
<tr>
<td>⁷Historical Studies Elective</td>
<td>3</td>
</tr>
<tr>
<td>Industrial Engineering 405</td>
<td>3</td>
</tr>
<tr>
<td>⁸Thermodynamics Elective</td>
<td>3</td>
</tr>
<tr>
<td>⁶Technical Electives</td>
<td>6</td>
</tr>
</tbody>
</table>
Senior
Biosystems Engineering 401, 402 9
Biosystems Engineering 403, or 423, or 430, or 433 3
3Bioscience Elective 4
Speech 210 or 240 3
English 360 3
Economics 201 4
7Social Science Elective 3
6Technical Elective 3
Total Hours 134

1 Or equivalent honors course.
2 If Mathematics placement test score is unsatisfactory, take Mathematics 130 prior to 141. (See advisor for alternate course schedule). Mathematics 130 will count as additional hours toward graduation.
3 Select from: P&SS 210 Introduction to Soil Science; Biology 130; Botany 110; Microbiology 210; and other biological science courses as approved by advisor.
4 Select from BsE 243 Material and Energy Flows in Biological Systems; BsE 311 Processing Food and Biological Materials; BsE 315 Soil And Water Conservation; and BsE 331 Power Units and Machinery.
5 Select from CE 390 Hydraulics or ES 341 Fluid Mechanics.
6 Typically upper division courses in engineering or related areas. May also include Physics 232. Must be approved in advance by advisor.
7 These electives must be approved in advance by advisor to insure that they meet university and ABET criteria.
8 Select ME 331 Thermodynamics or NE 203 Thermodynamics after consultation with your advisor.

EFFECTIVE FALL 1999

BIOSYSTEMS ENGINEERING WITH CONCENTRATION IN BIOLOGICAL ENGINEERING

<table>
<thead>
<tr>
<th>Hours</th>
<th>Credit</th>
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<tbody>
<tr>
<td>Freshman</td>
<td></td>
</tr>
<tr>
<td>Engineering Fundamentals 101, 102</td>
<td>12</td>
</tr>
<tr>
<td>Biosystems Engineering 103, 104</td>
<td>2</td>
</tr>
<tr>
<td>Chemistry 120</td>
<td>4</td>
</tr>
<tr>
<td>1English 101, 102</td>
<td>6</td>
</tr>
<tr>
<td>1,2Mathematics 141, 142</td>
<td>8</td>
</tr>
<tr>
<td>Sophomore</td>
<td></td>
</tr>
<tr>
<td>Biosystems Engineering 201, 243</td>
<td>4</td>
</tr>
<tr>
<td>3Basic Biology Electives I &amp; II</td>
<td>8</td>
</tr>
<tr>
<td>Agriculture 101</td>
<td>3</td>
</tr>
<tr>
<td>Engineering Science 231, 321</td>
<td>6</td>
</tr>
<tr>
<td>Chemistry 130</td>
<td>4</td>
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<tr>
<td>Course</td>
<td>Hours</td>
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<td>--------------------------------------------</td>
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</tr>
<tr>
<td>Mathematics 200, 231, 241</td>
<td></td>
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<tr>
<td>Physics 231</td>
<td></td>
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<tr>
<td><strong>Junior</strong></td>
<td></td>
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<tr>
<td>Biosystems Engineering 303, 451</td>
<td></td>
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<tr>
<td>Electrical Engineering 301</td>
<td></td>
</tr>
<tr>
<td>6Thermodynamics Elective</td>
<td></td>
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<tr>
<td>Chemistry 350</td>
<td></td>
</tr>
<tr>
<td>Economics 201</td>
<td></td>
</tr>
<tr>
<td>4Fluid Science Elective</td>
<td></td>
</tr>
<tr>
<td>7Historical Studies Elective</td>
<td></td>
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<tr>
<td>Microbiology 210</td>
<td></td>
</tr>
<tr>
<td><strong>Senior</strong></td>
<td></td>
</tr>
<tr>
<td>Biosystems Engineering 311, 401, 402, 433</td>
<td></td>
</tr>
<tr>
<td>5Technical Elective</td>
<td></td>
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<tr>
<td>7Humanities Elective</td>
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<td>7Social Sciences Elective</td>
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<tr>
<td>Industrial Engineering 405</td>
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<tr>
<td>Speech 210 or 240</td>
<td></td>
</tr>
<tr>
<td>English 360</td>
<td></td>
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<tr>
<td><strong>Total Hours</strong></td>
<td></td>
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</tbody>
</table>

1 Or equivalent honors course.
2 If Mathematics placement test score is unsatisfactory, take Mathematics 130 prior to 141. (See advisor for alternate course schedule). Mathematics 130 will count as additional hours for graduation.
3 Select from: Biology 130 & 140 (general biology sequence) or Botany 110 & 120 (general botany sequence).
4 Select from CE 390 Hydraulics or ES 341 Fluid Mechanics.
5 Typically upper division courses in engineering or related areas. May also include Physics 232. Must be approved in advance by advisor.
6 Select ME 331 Thermodynamics, NE 203 Thermodynamics, or BioCh 471 Intro. To Physical Biochemistry after consultation with your advisor.
7 These electives must be approved in advance by advisor to insure that they meet university and ABET criteria.

**EFFECTIVE FALL 1999**

**BIOSYSTEMS ENGINEERING WITH CONCENTRATION IN FOOD ENGINEERING**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Freshman</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Engineering Fundamentals 101, 102</em></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Biosystems Engineering 103, 104</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>
Chemistry 120  4
1 English 101, 102  6
1,2 Mathematics 141, 142  8

**Sophomore**
Agriculture 101  3
Biosystems Engineering 201, 243  4
Engineering Science 231, 321  6
4 Humanities Elective  3
Chemistry 130  4
Mathematics 200, 231, 241  8
Microbiology 210  3
Physics 231  3

**Junior**
Biosystems Engineering 303, 451  7
Electrical Engineering 301  3
4 Fluid Science Elective  3
Food Science & Technology 310, 320, 329, 340  12
Economics 201  4
4 Historical Studies Elective  3
4 Thermodynamics Elective  3

**Senior**
Biosystems Engineering 311, 401, 402, 433  15
English 360 or 462  3
4 Social Science Elective  3
4 Historical Studies Elective  3
Industrial Engineering 405  3
Speech 210 or 240  3
Food Science and Technology 495  3

**Total Hours**  134

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1 Or equivalent honors course.
2 If Mathematics or placement test score is unsatisfactory, take Mathematics 130 prior to 141. (See advisor for alternate course schedule). Mathematics 130 will count as additional hours for graduation.
3 These electives must be approved in advance by advisor to insure that they meet university and ABET criteria.
4 Select from CE 390 Hydraulics or ES 341 Fluid Mechanics.
5 Select ME 331 Thermodynamics or NE 203 Thermodynamics after consultation with your advisor.

**EFFECTIVE FALL 1999**
ANIMAL SCIENCE UNDERGRADUATE CURRICULUM CHANGES

EFFECTIVE FALL, 1999

DROP Animal Science 363(2) Poultry Evaluation

Rationale: The course has not been taught in the last three years due to lack of interest.

DROP Animal Science 486(3) Lamb and Wool Production

Rationale: Interest is waning, sheep industry is not important to region or Tennessee. The sheep industries compatibility with beef production can be incorporated with that course at a later date. AS 486 not due to be taught again until spring 2001.

On page 57 of the 1998-99 Undergraduate Catalog, revise the Animal Science concentrations:

Animal Science with Concentration in Production Management:
   In the sophomore year, drop the Animal Products Elective and add Non-Animal Science Agriculture Elective (3). In the junior year, change the Non-Animal Science Agriculture Electives to 6 hours credit.

Animal Science with Concentration in Science/Technology:
   In the sophomore year, drop the Animal Products Elective and add Non-Animal Science Agriculture Elective (3). In the senior year, change the Non-Animal Science Agriculture Electives to 6 hours credit.

All changes effective for FALL 1999
MEMORANDUM

Date: January 5, 1999

To: Dr. Linda Tober

From: Gary Schneider

Subject: Change in Food Science and Technology curriculum

The Department of Food Science and Technology has developed three new concentrations. These are:
- Food Science and Technology with concentration in Science
- Food Science and Technology with concentration in Business/Technology
- Food Science and Technology with Preprofessional concentrations

These are to be added to the departmental curriculum.

The current departmental major is being dropped, and replaced with the above three concentrations.

All of these changes are shown on the materials submitted to you on December 15, 1998. Please let me know if you have any questions regarding these items. Thank you.
FOOD SCIENCE AND TECHNOLOGY

The curriculum concentrations in food science and technology prepare students to apply basic scientific and business principles to manufacturing, processing, distribution and utilization of food products and the sciences and engineering technology to manufacture, preserve, store, and distribute foods that meet the needs and desires of consumers. Coursework emphasizes the basic principles of converting raw food materials into safe acceptable consumer products. Selected commodity courses detail processing of specific types of food materials. Students entering the program should have an interest in the sciences, particularly such as chemistry, microbiology, and biology.

Career opportunities include positions in the food industry in quality assurance, production management, marketing, governmental inspection, etc. This curriculum is designed to prepare students for a professional career in positions in the food industry such as food microbiologist, food chemist, quality evaluation and control supervisor, plant management, ingredients specialist, etc. The science concentration program of coursework conforms to the guidelines in the model curriculum of the Institute of Food Technologists. The business/technology concentration allows students to obtain an agr. business or business minor. A special problems course provides opportunity for practical training in food processing plants and laboratories or federal and state laboratories.

The minor in Food Science and Technology requires a minimum of 17 hours as follows: 140, 310, 320-329, 340 and one elective course in Food Science and Technology.

<table>
<thead>
<tr>
<th>Hours Credit</th>
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<tbody>
<tr>
<td><strong>Freshman</strong></td>
</tr>
<tr>
<td>English 101-102 ................................................. 6</td>
</tr>
<tr>
<td>Math 123, 125 ........................................ 6</td>
</tr>
<tr>
<td>Biology 130 .................................................. 4</td>
</tr>
<tr>
<td>Food Science and Technology 140 ..................... 3</td>
</tr>
<tr>
<td>Chemistry 120 .................................................. 4</td>
</tr>
<tr>
<td>Agriculture 101 ............................................... 3</td>
</tr>
<tr>
<td>*Humanities and Social Sciences Electives .......... 6</td>
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<tr>
<td><strong>Sophomore</strong></td>
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<tr>
<td>Chemistry 130, 110 ............................................. 8</td>
</tr>
<tr>
<td>Microbiology 210 ............................................... 3</td>
</tr>
<tr>
<td>Food Science and Technology 240 ...................... 2</td>
</tr>
<tr>
<td>*Statistics 201 ............................................... 3</td>
</tr>
<tr>
<td>Nutrition 100 .................................................. 3</td>
</tr>
<tr>
<td>Physics 121 ..................................................... 3</td>
</tr>
<tr>
<td>Food Science and Technology 290 ...................... 3</td>
</tr>
<tr>
<td>*Agriculture 290 ............................................... 3</td>
</tr>
<tr>
<td>*Speech Elective .............................................. 3</td>
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<tr>
<td><strong>Junior</strong></td>
</tr>
<tr>
<td>Food Science and Technology 310 ...................... 4</td>
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<tr>
<td>Food Science and Technology 340 ...................... 3</td>
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<td>Food Science and Technology 460 ...................... 3</td>
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<tr>
<td>Statistics 365 .................................................. 3</td>
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<tr>
<td>Biochemistry 310 .............................................. 4</td>
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<tr>
<td>Food Science and Technology 320, 329 ............... 5</td>
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</table>
Food Science and Technology 470 or 480 .......... 3  
Economics 201 .................................................. 4  
Electives .......................................................... 6  
**Senior**  
Food Science and Technology 401 ...................... 2  
Food Science and Technology 430 ..................... 3  
Biosystems Engineering Technology 422 ............. 3  
Food Science and Technology 452 ..................... 3  
*History Electives ............................................ 6  
Food Science and Technology 495 ..................... 3  
*Food Science and Technology 470 or 480 ........... 3  
Nutrition 420 .................................................. 4  
*Ethics Elective ............................................... 3  
*Communications Elective ................................ 3  
Electives ........................................................ 1  

Total: 132 hours

1 May be chosen from approved list of courses meeting University requirements as Humanities or Social Sciences.  
2 Or Plant and Soil Science 471.  
3 Or Computer Science elective.  
4 Speech 210, 220 or 240.  
5 FST 470 and 480 offered alternate years.  
6 May be chosen from approved list of courses meeting departmental requirements as History.  
7 Philosophy 342, 344, 345, or 346.  
8 May be chosen from approved list of courses meeting departmental requirements as communications elective.

**FOOD SCIENCE AND TECHNOLOGY WITH CONCENTRATION IN SCIENCE**

**Hours Credit**

**Freshman**  
English 101-102 .............................................. 6  
Math 123-125 or 141-142 ................................. 6-8  
1Biological Sciences ...................................... 4  
Food Science and Technology 140 ..................... 3  
Chemistry 120-130 ......................................... 8  
Agriculture 101 ............................................. 3  
Elective ......................................................... 3  

**Sophomore**  
Chemistry 350, 360-369 .................................. 8  
Physics 101 or 221 ........................................... 3-4  
Microbiology 210 .......................................... 3
Food Science and Technology 340 ......................... 3
Agriculture 290 ....................................................... 3
Nutrition 100 or 300 .............................................. 3
\textsuperscript{2,6}Social Science Elective ........................................ 3
\textsuperscript{3,6}Ethics Elective ............................................ 3
\textsuperscript{4,6}Humanities Elective ........................................ 3

\textbf{Junior}
Food Science and Technology 310 ......................... 4
Food Science and Technology 320-329 .................. 5
BCMB 310 or 410 .................................................. 4
Economics 201 ....................................................... 4
\textsuperscript{5,6}History Electives ................................................. 6
\textsuperscript{7}Food Science and Technology Elective ........ 3
Speech 210, 220 or 240 .......................................... 3
Plant and Soil Science 471 or Statistics 201 ....... 3

\textbf{Senior}
Food Science and Technology 401 ......................... 2
Food Science and Technology 430 ......................... 3
Food Science and Technology 495 ......................... 3
\textsuperscript{7}Food Science and Technology Elective ........ 9
Nutrition 420 ....................................................... 4
Biosystems Engineering Technology 422 .............. 3
Electives ..................................................................... 8-11

\textbf{Total: 132 hours}

\footnotesize
\textsuperscript{1}May be chosen from Biology 101, 130 or Botany 110.
\textsuperscript{2}May be chosen from approved list of courses meeting University requirements as Social Sci.
\textsuperscript{3}May be chosen from Philosophy 110, 240, 342, 344, 345, 346 or Business Law 301.
\textsuperscript{4}May be chosen from approved list of courses meeting University requirements as Humanities.
\textsuperscript{5}May be chosen from approved list of courses meeting University requirements as History.
\textsuperscript{6}One of these electives (3 hrs) must be described as writing intensive.
\textsuperscript{7}May be chosen from approved list of courses meeting Departmental requirements for FST elective.

\textbf{FOOD SCIENCE AND TECHNOLOGY}
\textbf{WITH CONCENTRATION IN BUSINESS/TECHNOLOGY}

\textbf{Hours credit}
Freshman
English 101-102 .............................................. 6
Math 119 or 123 and 125 ............... 6
\textsuperscript{8}Biological Sciences .............................. 4
Food Science and Technology 140 3
Chemistry 100 ................................. 4
Agriculture 101 .................................. 3  
$^{2,7}$Social Science Elective ............... 3  
$^{3,7}$Humanities Elective .................... 3  

**Sophomore**  
Chemistry 110 ................................. 4  
Microbiology 210 ............................... 3  
Food Science and Technology 340 ........ 3  
Food Science and Technology 240 ........ 2  
Agriculture 290 ............................... 3  
Nutrition 100 or  
  Animal Science 330 ....................... 3  
Statistics 201 .................................. 3  
$^{4,7}$Ethics Elective ............................ 3  
$^{5}$Directed Technology/  
  Business Electives ....................... 6  
Economics 201 ................................. 4  

**Junior**  
Food Science and Technology 310 ........ 4  
Food Science and  
  Technology 320-329 ....................... 5  
$^{6,7}$History Electives ......................... 6  
Food Sci & Tech 452, 460,  
  470 and/or 480 .............................. 3  
Speech 210, 220 or 240 .................... 3  
Statistics 365 .................................. 3  
Electives ....................................... 3  

**Senior**  
Food Science and Technology 401 ........ 2  
Food Science and Technology 430 ........ 3  
Food Sci & Tech 452, 460, 470  
  and/or 480 ................................. 6  
Food Science and Technology 490 ........ 3  
Food Science and Technology 495 ........ 3  
$^{3}$Directed Technology/  
  Business Electives ....................... 7  
Electives ..................................... 9  

Total: 132 hours

$^{1}$May be chosen from Biology 101, 130 or Botany 110.  
$^{2}$May be chosen from approved list of courses meeting University requirements as Social Sciences.  
$^{3}$May be chosen from approved list of courses meeting University requirements as Humanities.  
$^{4}$May be chosen from Philosophy 110, 240, 342, 344, 345, 346 or Business Law 301.
FOOD SCIENCE AND TECHNOLOGY WITH PREPROFESSIONAL CONCENTRATIONS

These programs in Pre-Dental, Pre-Medicine, Pre-Pharmacy and Pre-Veterinary Medicine allow students to be awarded a B.S. degree in Agriculture with a major in Food Science and Technology, after three years and the successful completion of the first year (two semesters) in UT-Memphis dental, medical or pharmacy programs or UT Knoxville College of Veterinary Medicine. The last 30 hours of the three-year curriculum must have been taken at UT Knoxville. A total of 132 hours must be completed by the end of the first year in professional school. No later than December 31 of the student’s first year in professional school (s)he should contact the Dept Food Science and Technology in order to check on graduation procedures for this program.

Although a B.S. degree is not required for admission to the Colleges of Dentistry or Medicine, most of the students accepted into these programs have the baccalaureate degree before admission. Therefore students are encouraged to plan to complete all requirements for B.S. degree before enrolling in either of these colleges. A B.S. degree can be obtained before enrolling in the Doctor of Pharmacy (Pharm.D.) program.

Should the student not gain admittance after the Junior year, the student could complete the requirements for a major in Food Science and Technology during the Senior year.

<table>
<thead>
<tr>
<th>Hours credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
</tr>
<tr>
<td>English 101-102 ...................................................... 6</td>
</tr>
<tr>
<td>Math 141-142 ......................................................... 8</td>
</tr>
<tr>
<td>Biology 130-140 ....................................................... 8</td>
</tr>
<tr>
<td>Food Science and Technology 140 .............................. 3</td>
</tr>
<tr>
<td>Chemistry 120-130 .................................................... 8</td>
</tr>
<tr>
<td>Agriculture 101 ....................................................... 3</td>
</tr>
<tr>
<td>Sophomore</td>
</tr>
<tr>
<td>Chemistry 350, 360-369 ........................................ 8</td>
</tr>
<tr>
<td>Physics 221 ............................................................. 4</td>
</tr>
<tr>
<td>Physics 222 or ....................................................... 4</td>
</tr>
<tr>
<td>Food Science and Technology elective ..................... 3</td>
</tr>
<tr>
<td>Microbiology 210 ....................................................... 3</td>
</tr>
<tr>
<td>Food Science and Technology 340 .............................. 3</td>
</tr>
<tr>
<td>Agriculture 290 ........................................................ 3</td>
</tr>
<tr>
<td>Nutrition 100 or 300 .................................................. 3</td>
</tr>
<tr>
<td>2,7,8Social Science Elective .................................... 3</td>
</tr>
<tr>
<td>3,7Ethics Elective ...................................................... 3</td>
</tr>
</tbody>
</table>
Junior
Food Science and Technology 310 ......................... 4
Food Science and Technology 320-329 .................. 5
4 BCMB 230, 310 or 410 .................................. 4-5
5 Humanities Elective or ....................................... 3
6 Biotechnology 240 ........................................ 4
7 Speech 210 or 240 ........................................ 3
Economics 201 ................................................. 4
6 History Electives .............................................. 6
Plant and Soil Science 471 or Statistics 201........... 3

Total: 102-103 hours

Senior year in professional school or 4th year of Food Science and Technology curriculum to receive B.S. degree after 132 hours.

1 Physics 222 required for Pre-Med, Pre-Pharmacy and Pre-Vet. FST elective required for Pre-Dental.
2 May be chosen from approved list of courses meeting University requirements as Social Sciences. (Psychology 110 is suggested for Pre-pharmacy)
3 May be chosen from Philosophy 110, 240, 342, 344, 345, 346 or Business Law 301.
4 BCMB 230 required for Pre-Dental, BCMB 310 required for Pre-Pharmacy, BCMB 410 required for Pre-Med and Pre-Vet.
5 May be chosen from approved list of courses meeting University requirements as Humanities.
6 May be chosen from approved list of courses meeting University requirements as History.
7 One of these electives (3 hrs) must be described as writing intensive.
8 Biology 240 required for Pre-Vet.
9 Speech 210 or 240 will be accepted by the CVM as meeting requirements in Humanities/Social Science category.

Effective Summer - 1999

Changes to Food Science and Technology courses.

Course Number, Description and Prerequisites

REVISE course number, description and prerequisites

Revise 290 to

490 Food Laws and Regulations (3) A comprehensive examination of the laws and regulations designed to preserve the safety, wholesomeness, and nutritional quality of the United States food supply with an in-depth analysis and discussion of precedent case studies and their impacts on laws and regulations. Core courses in Food Science and Technology will serve as an essential basis for understanding of material covered in this course. Prereq: 140; non-majors must obtain permission of instructor.
REVISE Course Prerequisites

240  Field Observations in Food Processing
     Prereq: 140; non-majors must obtain permission of instructor.

     Effective Fall 1999

DEPARTMENT OF FORESTRY, WILDLIFE AND FISHERIES

COURSES

FORESTRY

Repetition:

495  Internship in Wildland Recreation (1-6) May be repeated. Maximum 6 hours.

Add:

496  Internship in Forestry (1-6)
     Supervised experience at departmental-approved, employment location arranged by the student. Internship learning objectives must be pre-approved by the advisor/instructor and the field supervisor. Daily log, supervisor evaluations and final report required. One credit per two weeks of full-time supervised field experience maximum. Prereq: Junior standing, consent of instructor. May be repeated. Maximum 6 hours.

     (Effective Fall Semester 1999)

FORESTRY, WILDLIFE, AND FISHERIES

Revise description:

211  Introduction to Forestry, Wildlife and Fisheries
     Delete: Day-long field trips may be required.

311  Dendrology and Silvics of North American Trees
     Add: Day-long field trips may be required.

     (Effective Fall Semester 1999)
WILDLIFE AND FISHERIES SCIENCE

Add:

496  Internship in Wildlife and Fisheries Science (1-6)
Supervised experience at departmental-approved, employment location arranged by the student. Internship learning objectives must be pre-approved by the advisor/instructor and the field supervisor. Daily log, supervisor evaluations and final report required. One credit per two weeks of full-time supervised field experience maximum. Up to 3 credits may be used for science elective. Prereq: Junior standing, consent of instructor. May be repeated. Maximum 6 hours.

(Effective Fall Semester 1999)

ORNAMENTAL HORTICULTURE AND LANDSCAPE DESIGN

Revise Prerequisites:

280  Fundamentals of Landscape Design (3)
Prerequisites: 220 or consent of instructor
(Formerly: 110, 220 or consent of instructor)
(Effective: Fall, 1999)

330  Plant Propagation (3)
Prerequisites: 8 hours of biological sciences or consent of instructor
(Formerly: 110 and 8 hours of Botany or consent of instructor)
(Effective: Fall, 1999)

340  Turfgrass Management (3)
Prerequisites: Plant and Soil Science 210; 8 hours biological sciences or consent of instructor
(Formerly: 110; Plant and Soil Science 210 and 8 hours of Botany or consent of instructor)
(Effective: Fall, 1999)

370  Grounds Maintenance (3)
Prerequisites: None
(Formerly: 110)
(Effective: Fall, 1999)

430  Greenhouse Floral Crop Production (3)
Prerequisites: Agriculture 290 or consent of instructor
(Formerly: 110; Agriculture 290 or consent of instructor)
(Effective: Fall, 1999)
431  **Greenhouse Floral Crop Production Laboratory** (1)
Prerequisites: Agriculture 290 or consent of instructor
(Formerly: 110; Agriculture 290 or consent of instructor)
(Effective: Fall, 1999)

450  **Specialty Landscape Construction** (3)
Prerequisite: None
(Formerly: 350)
(Effective: Fall, 1999)

480  **Advanced Landscape Design** (4)
Prerequisites: 280, 380
(Formerly: 280, 350, 380)
(Effective: Fall, 1999)

PLANT AND SOIL SCIENCES (792)

REVISE COURSE TITLE:

413  **Environmental Soil Chemistry** (3) Composition and chemical properties of soils and processes that govern fate and behavior of chemicals in the soil environment. Topics include: clay mineralogy; soil organic matter; mineral weathering and stability; aqueous speciation; surface chemistry; ion exchange, adsorption, and molecular retention; oxidation-reduction; and soil acidity, alkalinity, and salinity. Prereq: 310 and Chemistry 110 or 350 or equivalent. F.

OLD TITLE:
413 Soil Chemistry (3)
Effective Date: Fall 1999

REVISE PREREQUISITES:

414  **Soil, Land Use and the Environment** (3) Prereq: 310 or consent of instructor. (Formerly: 210 or consent of instructor)
Effective Date: Fall 1999

435  **Field and Forage Crops** (3) Prereq: 230 or 330. (Formerly 230 or 230.)
Effective Date: Fall 1999
REVISE COURSE TITLE, DESCRIPTION, AND PREREQUISITES:

434  **Fruit and Vegetable Crops** (3) Principles of production systems to counter environmental stresses and to increase productivity of warm and cool season vegetable crops, small fruit crops, and deciduous tree fruit crops. Storage of crops after harvest. Prereq: 230 or 330. 2 hours lecture and 2 hours lab. F.

OLD DESCRIPTION:

434  **Postharvest Biology and Technology** (3) Principles, methods, and techniques related to the maintenance of quality of horticultural commodities. Emphasis is placed on preharvest management, harvesting, storage facilities and techniques, quality evaluation and the biological and physiological mechanisms related to maturation, ripening, and senescence. Two Saturday field trips. 2 hours and 1 lab. Prereq: 1 year Biological science and Junior standing. F.A.

Effective date: Fall 1999
MEMORANDUM

TO: Linda Tober, Undergraduate Council

FROM: Anne Mayhew

DATE: December 21, 1998

SUBJECT: SUMMARY, COLLEGE OF ARTS AND SCIENCES CURRICULAR PROPOSALS FOR JANUARY 21 MEETING OF THE COUNCIL

The attached curricular proposals have been approved by the faculty of the College of Arts & Sciences and are herewith submitted to the Undergraduate Council for their consideration. These proposals may be summarized as:

1) Changes in courses available for satisfaction of Basic Skills and Distribution Requirements consequent upon other changes described below.

2) Art is revising requirements for the BFA in Studio Art, revising elective Studio requirements for BFA Graphic Design, revising requirements for the BA in Art history, revising Art history requirements for the BA in Studio Art, revising requirements for the minor in Studio Art, changing prerequisites for a number of courses in preparation for Banner implementation, and revising description of 6 courses to add advisory statements for majors/minors.

3) Audiology and Speech Pathology is changing the number of one course, changing the number and revising the description of another, adding a new course, and changing the degree requirements to list the new course and to increase the major requirements for the BA in Speech Pathology from 15 to 34 semester hours, and in Audiology from 28 to 31 semester hours.

4) Biochemistry and Cellular and Molecular Biology is proposing to change the title, credit hours and prerequisites of one course, and title and prerequisites of another.

5) The Division of Biology is revising the upper-division course requirements for concentration in EEB.
6) Botany is adding a capstone course.

7) Chemistry is adding two new introductory courses for non-science students and clarifying the repetition and replacement options for the 400-level Research in Chemistry course.

8) Computer Science is dropping one course, adding another, rewriting description of 102, revising prerequisites in four courses, clarifying course requirements for the major, and rewriting progression standards and advice for transfer students.

9) Geography is adding four new courses to reflect changes in the field and faculty expertise, and adding a prerequisite to the course in meteorology.

10) Geological Sciences is revising prerequisites to a B.S. major to reflect changes made in Physics offerings, changing the course on “Geology of National Parks” from a 200 to 300 level, and adding 3 courses.

11) History is adding a new course, revising the description of another, cross-listing one course, and revising the requirements for the major.

12) Interdisciplinary Programs are cross-listing two courses; changing the numbers of two courses; the Comparative Literature program is dropping one course, revising the description of two, and revising the requirements for the major and minor.

13) Mathematics is adding a course in actuarial math.

14) Music is making a number of changes which may be classified under four headings: (1) revision of the program description and requirements to clarify existing policies, correct errors, and address accreditation issues; (2) changes in curriculum for the B.A. in Music and for several of the B.M. curricula; (3) revision of course descriptions of four courses; (4) adding two courses.

15) Modern Foreign Languages and Literatures wants to drop one course and to make changes in the French major/minor curriculum. German proposes a non-thesis option in the M.A. program and requests that German 350 be added to the Foreign Study option. Italian wants to add a senior-level civilization course and have two courses listed under the Foreign Study Option; Spanish is revising the requirements for the major.

16) Political Science is specifying that an internship course may not be used in meeting requirements for the major, revising the requirements for the honors major, revising the requirements for the Public Administration concentration to eliminate corequisite courses, and revising the list of courses including in the Comparative Government and Politics area.

17) Philosophy requests that the course on Environmental Ethics be added to the Philosophy perspective package.
18) **Physics** is revising the prerequisites and corequisites for 2 courses, adding four courses, and revising the major to make two concentrations (an Applied Concentration and an Academic Concentration) available.

19) **Sociology** is revising the prerequisites to the major and minor.

**COLLEGE BASIC SKILLS AND DISTRIBUTION**

In the materials describing the College’s Basic Skills and Distribution Requirements in the 1998-99 Undergraduate Catalog, on the list of options under

**Distribution**

1. **Divisional Distribution,**

   a. **Non-United States History, delete**

      African and African American Studies 211-212 Introduction to African Studies

      and **add**

      African and African American Studies 235-236 Introduction to African Studies

   b. **Natural Science, add**

      Chemistry 150, Chemistry and Society

      Chemistry 160, Chemistry and the Home

      **Delete**

      Geology 203, Geology of National Parks
2. Upperlevel Distribution,

   a. United States Studies, add

   Geography 423, *Geography of American Popular Culture* (Same as American Studies 423)

   Geology 303, *Geology of National Parks*

   b. Foreign Studies,

   Africa, add following History 381 *History of South Africa*

   (Same as African and African American Studies 381)

   European, p. 72, Col. 3, add

   German 350, *German-Jewish Culture*

   History 323, *Deviance and Persecution in the Christian West, 1100-1700*

   Italian 414, *Italian Cultural Studies*

   Italian 421, *Topics in Italian Literature and Cinema*

   c. Capstone Experience, p. 73, Col. 2, add

   Botany 471, *Senior Seminar*
On page 80, column 2, of the 1998-99 Undergraduate Catalog under B.F.A. in Studio Art, revise the statement regarding Art Education hours in Studio Electives section from:

. . . students electing an additional major in Art Education and licensure to teach must take 14-15 hours in undergraduate Art Education courses.

To:

. . . students electing an additional major in Art Education and licensure to teach must take 13 hours in undergraduate Art Education courses.

On page 80, columns 1 and 2, of the 1998-99 Undergraduate Catalog, revise the Core and Concentration Requirements for the BFA in Studio Art (Media Arts Concentration). Requirements for BFA Studio Art-Media Arts concentration should be separated from other concentrations. Delete Media Arts from Concentrations listed (in 32 hour section of BFA requirements, top of column 2). Delete Media Arts section from Approved Concentration electives footnote, column 2 (Media Arts: Art Media Arts 231[3], 235[3], 236[3], 239[3], etc.)

From:

**Basic Requirements**

<table>
<thead>
<tr>
<th>Core</th>
<th>Hrs. Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 101, 103</td>
<td>4</td>
</tr>
<tr>
<td>Art 295</td>
<td>3</td>
</tr>
<tr>
<td>Art History 172, 173, 183</td>
<td>9</td>
</tr>
<tr>
<td>Art History electives</td>
<td>9</td>
</tr>
<tr>
<td>One course from each of the following 6 areas:</td>
<td></td>
</tr>
<tr>
<td>Art Drawing, Art Painting/ Watercolor,</td>
<td></td>
</tr>
<tr>
<td>Art Ceramics, Art Sculpture,</td>
<td></td>
</tr>
<tr>
<td>Art Printmaking, Art Media Arts</td>
<td>18</td>
</tr>
</tbody>
</table>

Sub-total: 43
Concentration: 200 level  
Portfolio Review (prerequisite to  
300 and 400 level courses)(S/NC) 0  
300 and 400 level 20  
*Approved Studio Electives for Concentration 9  

Sub-total: 32  

*Art Media 231(3), 235(3), 236(3), 239(3), 331(4), 332(4), 333(4), 431(12), 433(3), 435(9), 436(9), Art History 403(3)  

Studio Electives Additional hours in studio courses to be completed in the Art Department or our affiliated facility, Arrowmont School of Arts and Crafts. Students may also apply a maximum of 6 hours of approved studio courses from Architecture, Art Education, Broadcast Journalism, Computer Sciences, Human Resource Development, Interior Design or Theatre. Students electing an additional major in Art Education and licensure to teach must take 14-15 hours in undergraduate Art Education courses  

Sub-total: 18  

General Curriculum  
English Composition 6  
Non-U.S. History/Social Science 6  
Natural Science/Mathematics 6-8  
Arts and Sciences Non-Art Electives 14-16  

TOTAL: 127 Hours  
To:  

Basic Requirements  
Core Hrs.Credit  
Art 101, 103 4  
Art 295 3  
Art History 172, 173, 183 9  
Art History electives 6  
Media Arts 231, 235, 236 9  
One course from each of the following 5 areas:  
Art Drawing, Art Painting/Watercolor, Art Ceramics,  
Art Sculpture, Art Printmaking 15  

Sub-total: 46
**Concentration:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media Arts 330 (Portfolio Review) (Prerequisite to 300 and 400 level courses) (S/NC)</td>
<td>0</td>
</tr>
<tr>
<td>Art History 403 (History of Photography)</td>
<td>3</td>
</tr>
<tr>
<td>Art Media 433 (History of Film and Modern Art)</td>
<td>3</td>
</tr>
<tr>
<td>Art Media 435 (Cinematography as Art)</td>
<td>6</td>
</tr>
<tr>
<td>Art Media 436 (Video Art)</td>
<td>6</td>
</tr>
<tr>
<td>Art 331 (Photography II) or Art Media 341 (Digital Photography I)</td>
<td>4</td>
</tr>
<tr>
<td>Art Media 431 (Photography III) or Art Media 441 (Digital Photography II)</td>
<td>4</td>
</tr>
<tr>
<td>300 and 400 level electives in Media Arts</td>
<td>6</td>
</tr>
</tbody>
</table>

Sub-total: 32

**Studio Electives Additional hours in studio courses to be completed in the Art Department or our affiliated facility, Arrowmont School of Arts and Crafts. Students may also apply a maximum of 6 hours of approved studio courses from Architecture, Art Education, Broadcast Journalism, Computer Sciences, Human Resource Development, Interior Design or Theatre. Students electing an additional major in Art Education and licensure to teach must take 13 hours in undergraduate Art Education courses.**

Sub-total: 15

**General Curriculum**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>6</td>
</tr>
<tr>
<td>Social Science</td>
<td>12-14</td>
</tr>
<tr>
<td>Natural Science/Mathematics</td>
<td>6-9</td>
</tr>
<tr>
<td>Arts and Sciences Non-Art Electives</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL: 125 or 126 hours

On page 80, column 1, paragraph 1, second sentence, of the 1998-99 Undergraduate Catalog, delete Graphic Design from the sentence:

From:

All students seeking studio degrees (B.A. Studio, B.F.A Studio and Art Education, B.F.A. Graphic Design) must present and pass the appropriate Portfolio Review for their area of study.

To:

All students seeking studio degrees (B.A. Studio, B.F.A Studio and Art Education) must present and pass the appropriate Portfolio Review for their area of study.
On page 80, column 1, of the 1998-99 Undergraduate Catalog at the end of paragraph 1 (B.F.A. in Studio Art), add the following sentence:

Students seeking the B.F.A. Degree in Studio Art should also consider pursuing a minor in Art History.

On page 80, column 3, of the 1998-99 Undergraduate Catalog, revise B.F.A. Graphic Design Studio Electives from:

Students must choose a total of 9 hours from a minimum of 2 categories:
(1) Fabric/Papermaking Art 201, 202, 209;
(2) Art Printmaking; (3) Art Ceramics; (4) Art Sculpture; or
(5) Art Media Arts 9

To:

Students must choose a total of 9 hours from a minimum of 2 categories:
(1) Art Printmaking; (2) Art Ceramics; (3) Art Sculpture or
(4) Art Media Arts 9

On page 80, column 3, of the 1998-99 Undergraduate Catalog, revise requirements for BA in Art History from:

<table>
<thead>
<tr>
<th>B.A. Majors in Art History</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite: Art 172, 173, 183</td>
<td>9</td>
</tr>
<tr>
<td>Major: Art History courses numbered 300 and above</td>
<td>21</td>
</tr>
</tbody>
</table>

Students are required to take at least one course in four of the following areas:
- Medieval/Early Renaissance - Art History 425, 441, 431, 451
- Renaissance/Baroque - Art History 441, 442, 453
- American - Art History 471, 472, 473, 483
- 19th/20th Century - Art History 403, 472, 474, 475, 476, Art Media Arts 433
- Asian - Art History 415, 419, 411
- 6 hours selected from any of these areas or from courses in Department of Classics, Religious Studies, or School of Architecture in consultation with departmental advisor.

Art 481 3
Art History 376 (Majors’ Seminar) 3
Studio course numbered 200 and above 3

Total hours: 39
To: B.A. Majors in Art History

<table>
<thead>
<tr>
<th>Prerequisite: Art 172, 173, 183 (or their Honors equivalents)</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History courses numbered 300 and above</td>
<td>21</td>
</tr>
</tbody>
</table>

Students are required to take at least one course in four of the following areas:

- Medieval/Early Renaissance - Art History 425, 431, 441, 451
- Renaissance/Baroque - Art History 442, 452, 453
- American - Art History 471, 472, 473, 474, 475, 476
- 19th/20th Century - Art History 403, 472, 474, 475, 476
- Art Media Arts 433
- Asian - Art History 411, 415, 419

9 elective hours selected from any of these areas or from courses in Department of Classics, Religious Studies or School of Architecture in consultation with departmental advisor.

Art 481 (Museology I: Museums, Purpose and Function) 3
Art History 376 (Seminar in Art History) 3
Studio course numbered 200 and above 3

Total hours: 39

On page 81, column 1, of the 1998-99 Undergraduate Catalog, revise B.A. Major in Studio from:

Prerequisite: Art 101, 295, 103 7
Art 171 and 6 additional hours of Art History 9
Major:
Studio courses numbered 200 and above, including a minimum of 15 hours in 300-400 level courses 24

Total: 40 hours

To:

Prerequisite: Art 101, 295, 103 7
Art History 172, 173, 183 (any two) and 3 additional hours 9
Major:
Studio courses numbered 200 and above, including a minimum of 15 hours in 300-400 level courses.. 24

Total: 40 hours
On page 81, column 1, of the 1998-99 Undergraduate Catalog revise Minor in Studio from:

B.A. Minor in Studio:

Prerequisites: Art 101, 103, 295..................................................7
Art 171, 172, 173 Art History (Any two).................................6
Minor:
Studio courses which include a minimum of 8 additional
upper division hours. Concentration may be Ceramics,
Drawing, Fiber-Fabric, Painting-Watercolor, Printmaking,
Sculpture or a combination from these areas..................15

Total: 28 hours

To:

Minor in Studio:

Prerequisites: Art 101, 103, 295..................................................7
Art History 172, 173, 183 (Any two).................................6
Minor:
Studio courses which include a minimum of 8 additional
upper division hours. Concentration may be Ceramics,
Drawing, Media Arts, Painting-Watercolor, Printmaking,
Sculpture or a combination from these areas..................15

Total: 28 hours

On page 81, column 1, of the 1998-99 Undergraduate Catalog revise description from:

B.A. Minor in Art History

To:

Minor in Art History

ART

Revise prerequisite:

300 Inter-Area Portfolio Review (0)
Prereq: Art History 172 and 173 with a grade of C or better. (Formerly:
Prereq: Consent of department.) Satisfactory/No credit only.
484 Museology III: Field Projects (1-12)
Prereq: 481 and 482, and consent of instructor. May be repeated. Maximum 12 hours. (Same as Anthropology 484.) (Formerly: Prereq: 481 and 482.)

Add prerequisite:

493 Independent Study (1-15)
Prereq: Consent of the instructor. (Formerly: No prerequisite.)

Delete prerequisite:

299 Special Topics (3)
(Formerly: Prereq: Determined by department for individual topic.)

499 Special Topics (3)
(Formerly: Prereq: Determined by department for individual topic.)

ART CERAMICS

Revise prerequisite:

229 Ceramics: Special Topics (3)
Prereq: Consent of Instructor. May be repeated. Maximum 12 hours. (Formerly: Determined by department for individual topic.)

Revise prerequisite:

320 Ceramics: Portfolio Review (0)
Prereq: Art 101 and 103, Art History 172 and 173, Art Ceramics 221, all with a grade of C or better. Prereq/Coreq: Art 295 with a grade of C or better. Coreq: Art Ceramics 222. Satisfactory/No credit only. (Formerly: Prereq: 221, 222, and 225 or 226, and consent of department.)

Revise prerequisite:

429 Ceramics: Special Topics (3)
Prereq: Consent of the instructor. (Formerly: Prereq: Determined by department for individual topic.)

Add prerequisite:

493 Independent Study (1-15)
Prereq: Consent of the instructor. (Formerly: No prerequisite.)
ART DESIGN/GRAPHIC

Revise prerequisite:

251  \textit{Beginning Graphic Design I} (3)
Prereq: Art 101 and 103, Art Design/Graphic 151, all with a grade of C or better. (Formerly: Prereq: 101, 103, 151.)

Revise prerequisite:

252  \textit{Beginning Graphic Design II} (3)
Prereq: 251 with a grade of C or better. (Formerly: Prereq: 251.)

Revise prerequisite:

259  \textit{Special Topics: Graphic Design} (3)
Prereq: Consent of the instructor. May be repeated. Maximum 12 hours. (Formerly: Prereq: Determined by department for individual topic.)

Revise prerequisite:

350  \textit{Graphic Design Portfolio Review} (0)
Prereq: Art History 172 and 173 with a grade of C or better. Coreq: Art Design/Graphic 252. Satisfactory/No credit only. (Formerly: Prereq: 252 or consent of instructor.)

Revise prerequisite:

352  \textit{Intermediate Graphic Design II} (3)
Prereq: Art Design/Graphic 351 with a grade of C or better. (Formerly: Prereq: 351)

Revise prerequisite:

405  \textit{Computer Enhanced Graphic Design} (3)
Prereq: 351, 356 with a grade of C or better, and consent of instructor.)
May be repeated. Maximum 6 hours. (Formerly: Prereq: 351, 356, and consent of instructor.)

Revise prerequisite:

444  \textit{Graphic Design Center Practicum} (3)
Prereq: 350 and consent of instructor. May be repeated. Maximum 6 hours. (Formerly: Prereq: 351 and consent of instructor.)
Revise prerequisite:

451  Advanced Graphic Design (3)
     Prereq: 352 with a grade of C or better. (Formerly: Prereq: 352.)

Revise prerequisite:

452  Graphic Design Seminar (3)
     Prereq: 451 with a grade of C or better. (Formerly: Prereq: 451.)

Revise prerequisite:

456  Graphic Design Practicum (3-12)
     Prereq: Consent of instructor. May be repeated. Maximum 12 hours.
     (Formerly: Prereq: Senior standing and consent of instructor.)

Revise prerequisite:

459  Special Topics in Graphic Design (3)
     Prereq: Consent of the instructor. May be repeated. Maximum 12 hours.
     (Formerly: Prereq: Determined by department for individual topics.)

Add prerequisite:

493  Independent Study (1-15)
     Prereq: Consent of the instructor. (Formerly: No prerequisite.)

Add Corequisite:

351  Intermediate Graphic Design I (3)
     Prereq: 295, 350. Coreq: Art Design/Graphic 356. (Formerly: No corequisite.)

Delete prerequisite/corequisite:

356  Graphic Design Production (3)
     (Formerly: Prereq or Coreq: 351.)

ART DRAWING

Revise prerequisite:

219  Special Topics in Drawing/Painting (3)
     Prereq: Consent of the instructor. May be repeated. Maximum 12 hours.
     (Formerly: Prereq: Determined by department for individual topic.)
Revise prerequisite:

312 Drawing Portfolio Review (0)
Prereq: Art History 172 and 173 with a grade of C or better. Satisfactory/No credit only. (Formerly: Prereq: Consent of department.)

Revise prerequisite:

419 Special Topics in Drawing and Painting (3)
Prereq: Consent of the instructor. May be repeated. Maximum 12 hours. (Formerly: Prereq: Determined by department for individual topic.)

Add prerequisite:

493 Independent Study (1-15)
Prereq: Consent of the instructor. (Formerly: No prerequisite.)

Revise description from:

311 Drawing III (4)
Development of personal drawing techniques and concepts through class problems. Prereq: 212 and 312 or consent of instructor. May be repeated. Maximum 8 hours.

To:

311 Drawing III (4)
Development of personal drawing techniques and concepts through class problems. Prereq: 212 and 312 or consent of instructor. May be repeated. Maximum 8 hours. Total of 8 hours required for students in the Drawing Concentration.

Drop Graduate credit, revise description and prerequisite from:

411 Drawing IV (6)
Individualized pursuit of personal drawing techniques and concepts, supplemented by individual and group critiques and weekly life drawing sessions. Prereq: 311. May be repeated. Maximum 12 hours.

To:

411 Drawing IV (6)
Individualized pursuit of personal drawing techniques and concepts, supplemented by individual and group critiques and weekly life drawing sessions. Prereq: 8 hours of Art Drawing 311 with a grade of C or better, or consent of the instructor. May be repeated. Maximum 12 hours. Total of 12 hours required for undergraduate students in the Drawing Concentration.
ART HISTORY

Revise prerequisite:

489  Studies in Art History (3)
Prereq: Consent of the instructor. May be repeated. Maximum 6 hours.
(Formerly: Prereq: 12 hours of art history and consent of instructor.)

Add prerequisite:

493  Independent Study (1-15)
Prereq: Consent of the instructor. (Formerly: No prerequisite.)

Delete prerequisite:

479  Special Topics in Art History (3)
(Formerly: Prereq: Determined by department for individual topic.)

ART MEDIA

Revise prerequisite:

330  Media Arts Portfolio Review (0)
Prereq: Art History 172 and 173 with a grade of C or better. Satisfactory/No Credit only. (Formerly: Prereq: Consent of department.)

341  Digital Photography I (4)
Prereq: 231 and 331. (Formerly: Prereq: 231, 331, and permission of instructor.)

Revise prerequisite:

342  Large Format Photography I (4)
Prereq: 231, 311, and 331; and consent of the instructor. (Formerly: Prereq: 231, 331, and permission of instructor.)

Add prerequisite:

493  Independent Study (1-15)
Prereq: Consent of the instructor. (Formerly: No prerequisite.)
Delete prerequisite:

439  Special Topics in Media Arts (3)  
(Formerly: Prereq: Determined by department.)

239  Special Topics in Media Arts (3)  
(Formerly: Prereq: Determined by department for individual topic.)

ART PAINTING

Revise prerequisite:

214  Painting II (3)  
Prereq: Painting 213. May be repeated. Maximum 6 hours.  
(Formerly: Prereq: 213 for art majors; 191-Painting for non-art majors.)

216  Watercolor II (3)  
Prereq: Painting 215. May be repeated. Maximum 6 hours.  
(Formerly: Prereq: 215 for art majors; Art 191-Watercolor for non-art majors.)

219  Special Topics in Drawing/Painting (3)  
Prereq: Consent of the instructor. May be repeated. Maximum 12 hours.  
(Formerly: Prereq: Determined by department for individual topic.)

314  Painting Portfolio Review (0)  
Prereq: Art History 172 and 173 with a grade of C or better. Satisfactory/No credit only.  
(Formerly: Prereq: Consent of department.)

316  Watercolor Portfolio Review (0)  
Prereq: Art History 172 and 173 with a grade of C or better. Satisfactory/No credit only.  
(Formerly: Prereq: Consent of department.)

419  Special Topics in Drawing and Painting (3)  
Prereq: Consent of the instructor. May be repeated. Maximum 12 hours.  
(Formerly: Prereq: Determined by department for individual topic.)

Add prerequisite:

493  Independent Study (1-15)  
Prereq: Consent of the instructor.  
(Formerly: No prerequisite.)

Revise description from:

313  Painting III (4)  
Individual expression with varied media on canvas. Prereq: 214 and 314 or consent of instructor. May be repeated. Maximum 8 hours.
To:

313  **Painting III (4)**
Individual expression with varied media on canvas. Prereq: 214 and 314 or consent of instructor. May be repeated. Maximum 8 hours. Total of 8 hours required for students in the Painting Concentration.

Revise description from:

315  **Watercolor III (4)**
Individual expression with varied water-based media on paper. Prereq: 216 and 316 or consent of instructor. May be repeated. Maximum 8 hours. Total of 8 hours required for students in the Watercolor Concentration.

To:

315  **Watercolor III (4)**
Individual expression with varied water-based media on paper. Prereq: 216 and 316 or consent of instructor. May be repeated. Maximum 8 hours. Total of 8 hours required for students in the Watercolor Concentration.

Revise description from:

413  **Painting IV (6)**
Advanced painting stressing individual concepts and personal expression with varied media. Prereq: 313. May be repeated. Maximum 12 hours. Total of 12 hours required for undergraduate students in the Painting Concentration.

To:

413  **Painting IV (6)**
Advanced painting stressing individual concepts and personal expression with varied media. Prereq: 313. May be repeated. Maximum 12 hours. Total of 12 hours required for undergraduate students in the Painting Concentration.

Revise description from:

415  **Watercolor IV (6)**
Advanced painting with water-based media on paper stressing individual concepts and personal approaches. Prereq: 315. May be repeated. Maximum 12 hours. Total of 12 hours required for undergraduate students in the Watercolor Concentration.

To:

415  **Watercolor IV (6)**
Advanced painting with water-based media on paper stressing individual concepts and personal approaches. Prereq: 315. May be repeated. Maximum 12 hours. Total of 12 hours required for undergraduate students in the Watercolor Concentration.
ART PRINTMAKING

Revise prerequisite:

360  Printmaking Portfolio Review (0)
    Prereq: Art History 172 and 173 with a grade of C or better.  Satisfactory/
    No credit only.  (Formerly: Prereq: Consent of department.)

Add prerequisite:

493  Independent Study (1-15)
    Prereq: Consent of the instructor.  (Formerly: No prerequisite.)

ART SCULPTURE

Revise prerequisite:

249  Special Topics in Sculpture (3)
    Prereq: Art 101 and 103 with a grade of C or better.  May be repeated.
    Maximum 12 hours.  (Formerly: Prereq: Determined by department for
    individual topic.)

340  Sculpture Portfolio Review (0)
    Prereq: Art History 172 and 173 with a grade of C or better.  Satisfactory/
    No credit only.  (Formerly: Prereq: Consent of department.)

Revise prerequisite:

449  Special Topics in Sculpture (3)
    Prereq: Successful completion of any Portfolio Review (Art 300, or Art
    Ceramics 320, or Art Design/Graphic 350, or Art Drawing 312, or Art
    Media Arts 330, or Art Painting 314, or Art Painting 316, or Art
    Printmaking 360, or Art Sculpture 340).  May be repeated. Maximum 12
    hours.  (Formerly: Prereq: Determined by department for individual
    topic.)

Add prerequisite:

493  Independent Study (1-15)
    Prereq: Consent of the instructor.  (Formerly: No prerequisite.)

Effective Date: Fall 1999
AUDIOLOGY AND SPEECH PATHOLOGY

On page 81, col. 2, of the 1998-99 Undergraduate Catalog revise from:

The Department of Audiology and Speech Pathology offers course work in the scientific study of human communication sciences and disorders. The two undergraduate majors (audiology and speech pathology) are preparatory to graduate work and to professional certification in some aspect of speech, language and hearing disorders. The master’s degree is required for most professional certificates and employment positions. Information about the audiology and speech pathology programs may be obtained from the departmental office 457 South Stadium Hall, and students are strongly encouraged to consult with undergraduate advisors in the department as early as possible in their programs. Suggested elective courses for students not majoring in Audiology and Speech Pathology include 304, 305, 306, 320, 371, 465 and 473.

The B.A. major in speech pathology consists of Audiology and Speech Pathology 304, 305, 306, 320, 331, 371, 433, 461, and 473.


To:

The Department of Audiology and Speech Pathology offers course work in the scientific study of human communication sciences and disorders. The two undergraduate majors (audiology and speech pathology) are preparatory to graduate work and to professional certification in some aspect of speech, language and hearing disorders. The master’s degree is required for professional certificates and employment positions. Information about the audiology and speech pathology programs may be obtained from the departmental office 457 South Stadium Hall, and students are strongly encouraged to consult with the department’s undergraduate advisor as early as possible in their programs. Suggested elective courses for students not majoring in Audiology and Speech Pathology include 300, 302, 303, 305, 306, 320, 473.

The B.A. major in speech pathology consists of Audiology and Speech Pathology, 300, 302, 303, 305, 306, 320, 331, 433, 461, 473 and 494 and one course from the following courses: Linguistics 200, 371, 372, 411, 471 or 472.

The B.A. major in audiology consists of 300, 302, 303, 305, 306, 320, 331, 433, 461, 473 and 494.

Revise course number:

300 Introduction to Communication Disorders (3)
(Formerly: 304)
Revise description and course number from:


To:


Add:

302  **Acoustics and Perception (3)**
Basic acoustics. Introduction to psychoacoustics and speech perception.

Effective Date: Fall 1999

BIOCHEMISTRY, CELLULAR AND MOLECULAR BIOLOGY

Revise Title, Credits and Prerequisites from:

411  **Advanced Protein Chemistry and Cellular Biology (5).**
. . . Prerequisites: 410 and consent of instructor.

To:

411  **Advanced Cellular Biology (3).** . . .
. . . Prerequisite: 410

Revise Title and Prerequisites from:

412  **Advanced Molecular Biology (3)** . . .
. . . Prerequisites: 410 and consent of instructor.

To:

412  **Molecular Biology (3)** . . .
. . . Prerequisite: 410.

BIOLOGY

On page 82, 3rd column, of the 1998-99 Undergraduate Catalog, revise the Biology curriculum from:

3) Upper Division EEB courses: A total of 24 additional hours is required at the 300 level or above and must include at least one course from each of the following 4 categories:

To:
3) Upper Division courses: A total of 24 additional hours is required at the 300 level or above to include at least 15 hours from EEB, and at least one course from each of the following 4 categories:

On page 82, 3rd column, of the 1998-99 Undergraduate Catalog revise description from:

4) The remaining hours for the EEB concentration can include any of the remaining EEB courses on these lists, other Upper Division EEB courses, or appropriate Upper Division courses offered by the following departments: Anthropology; Botany; Forestry, Wildlife and Fisheries; Geography; Geology; Microbiology; Plant and Soil Sciences. Students should consult their advisor regarding appropriate courses offered by these and other departments. (A list of approved courses is available in the Division of Biology office.) These 24 credit hours must include at least one laboratory course.

To:

4) The remaining hours for the EEB concentration can include any of the remaining EEB courses on these lists, other Upper Division EEB courses, or appropriate Upper Division courses offered by the following departments: Anthropology; Botany; Forestry, Wildlife and Fisheries; Geography; Geology; Microbiology; Plant and Soil Sciences. No more than 2 courses, regardless of credit hours, may be elected from any one department other than EEB. A list of approved appropriate courses may be obtained from the office of either the Division of Biology or EEB. Please note that some of the courses listed may have prerequisites or corequisites that are not approved for Upper Division credit in the EEB concentration. Courses applied to the major must include at least 4 hours at the 400-level and one laboratory course:

Effective Date: Fall 1999

BOTANY

Add

471 Senior Seminar (3)
A capstone course conducted in seminar format dealing with topics of current interest in plant biology. Written reports and oral presentations are required. Prereq: Senior standing. Sp.

CHEMISTRY

Add:

150 Chemistry and Society (3)
Food and agricultural chemistry; chemistry of life; chemistry in medicine; air and water pollution; energy and fuels. 3 hours lecture. Not a prerequisite for any other chemistry course. F
Add:

160  **Chemistry and the Home**  (3)
Chemistry and the consumer; household products; chemistry in the kitchen and around the home. 3 hours lecture. Not a prerequisite for any other chemistry course. Sp

On p. 84 of the 1997-98 Undergraduate Catalog under Placement in General Chemistry Sequences, first paragraph revise from:

The sequences which meet all of the requirements of a year of General Chemistry and which serve as prerequisite for upper-division courses are 120-130 and 128-138; chemistry majors are strongly urged to take the latter sequence. Courses 100 and 110 emphasize organic and biochemistry, and may not be used as prerequisite for other chemistry courses.

To:

The sequences which meet all of the requirements of a year of General Chemistry and which serve as prerequisite for upper-division courses are 120-130 and 128-138; chemistry majors are strongly urged to take the latter sequence. Courses 100 and 110 emphasize organic and biochemistry, and may not be used as prerequisite for other chemistry courses. *Chemistry 150 and 160 are designed to increase the chemistry literacy and consumer knowledge of students and may not be used as prerequisites for any other chemistry course.*

Revise description and repetition from:

400  **Research in Chemistry**  (3)
Open to senior majors with consent of department head. Written reports are required. Advanced students work with faculty on projects requiring knowledge and skills acquired in chemistry curriculum. May be repeated. Maximum 6 hours. E

To:

400  **Research in Chemistry**  (3)
Open to senior majors with consent of department head. Written reports are required. Advanced students work with faculty on projects requiring knowledge and skills acquired in chemistry curriculum. May be followed by either 400 or 408 (but not both); maximum of 6 hours of Research in Chemistry. E

COMPUTER SCIENCE

On page 84 of the 1998-99 Undergraduate Catalog revise description from:

**Major:** 102, 140 and 160 are prerequisite to a major in computer science which consists of 302, 311, 365 and 380; two of the three courses 340, 360 and 370 plus an additional 9 hours of CS Advanced Topics courses. Math 231 and/or the third of 340, 360 or 370 may be substituted as part of the additional 9 hours of CS Advanced Topics courses. Math 141-142, 241, 251 and 300 and English
360 are also required. Students must select a two semester lab science from among Physics 135-136 or Biology or Chemistry or a sequence approved by the Computer Science Department.

To:

**Major:** Prerequisites to the major include Computer Science 102, 140, 160; Math 141-142; and a two semester laboratory science sequence (Physics 135-136 or Biology or Chemistry or a sequence approved by the Computer Science Department). The major consists of 302, 311, 365 and 380; two of the three courses 340, 360 and 370; Math 241, 251 and 300; English 360, and either an additional 9 hours of upper division Computer Science or an additional 6 hours of upper division Computer Science and Math 231.

On pages 84-85 of the 1998-99 Undergraduate Catalog revise the description from:

**Progression Standards:**
Progression into the Computer Science major is based on the availability of space in the laboratories and other resources. Progression requirements are adjusted periodically and current requirements can be determined by consulting with an advisor in the Undergraduate Programs office or by contacting the Computer Science Department directly. Students who enter the College of Arts and Sciences as freshmen or sophomores are expected to apply for the major immediately after attempting 10 hours in Computer Science.

In 1996 the progression standards were:
1. Has completed at least the following three courses at UTK with an average of 3.0 or better in Computer Science 102, 111 and 112.
2. Has achieved an average of 2.5 or better of grades in all Computer Science courses taken at UTK that apply to the major. All grades received for these courses are averaged.
3. Has received at most one W or repeated grade in a Computer Science course.
4. Has not been disciplined for academic dishonesty in a Computer Science course or for abuse of university computing privileges.

Progression standards are subject to change; current standards are available in the Undergraduate Programs Office and the Computer Science Department office, 107 Ayres Hall.

To:

**Progression Standards:**
Progression into the Computer Science major is based on the availability of space in the laboratories and other resources. Progression requirements are adjusted periodically and current requirements can be determined by consulting with an advisor in the Undergraduate Programs office or by contacting the Computer Science Department directly. Students who enter the College of Arts and Sciences as freshmen or sophomores are expected to apply for the major immediately after attempting 12 hours in Computer Science.

Recent progression standards were:
1. Has completed at least the following three courses at UTK with an average of 3.0 or
better: CS 102, 140 and 160 for UTK students. Transfer students’ course work will be evaluated individually.

2. Has achieved an average of 2.5 or better in all Computer Science courses taken at UTK that apply to the major. All grades received for these courses are averaged.

3. Has received at most one W or repeated grade in a Computer Science course.

4. Has not been disciplined for academic dishonesty in a Computer Science course or for abuse of university computing privileges.

Progression standards are subject to change; current standards are available in the Undergraduate Programs Office and the Computer Science Department office, 107 Ayres Hall.

On page 85 of the 1998-99 Undergraduate Catalog, revise description from:

**Transfers from Other UTK Programs:**

Students in other colleges or majors at UTK must apply for progression to the major at the earliest possible date but definitively prior to 75 hours. As a minimum, all students must be admitted to the Computer Science major for at least the last 30 hours of work. Only in exceptional circumstances will application be considered after 75 hours of course work (at UTK or elsewhere) have been attempted. It should not be supposed that Computer Science admission must be granted to those who accumulate a substantial number of hours in Computer Science courses. On the contrary, an academic record reflecting substantial work after 75 hours in the Computer Science curriculum may be taken as prima facie evidence of intent to evade this policy and may result in denial of admission.

To:

**Transfers from Other UTK Programs:**

Students in other colleges or majors at UTK must apply for progression to the major at the earliest possible date but ideally prior to 75 hours. As a minimum, all students must be admitted to the Computer Science major for at least the last 30 hours of work.

Add:

300 **Scripts and Utilities (1)**

Practical tools available under Unix to enable students to become more efficient in performing labs and research projects. Course will be pass/fail. Topics to be covered include: sh, cat/grep/find/sort/at/, ed/sed, awk, perl, python, make, rcs, jgraph, gcc/cpp/purify/quantify. Prereq: CS140 or permission of instructor. Satisfactory/no credit grading.

Drop:

219 **Electronic Printing and Graphics (1)**

Revise description from:

102 **Introduction to Computer Science (4)**

Problem solving and algorithm development. Organization and characteristics of modern digital computers with emphases on developing good programming
habits, building abstractions with procedures and data, and programming in a modern computer language. Students who have received credit for 111 or 112 may not also receive credit for 102 without consent of the instructor.

To:

102  **Introduction to Computer Science (4)**  
Problem solving and algorithm development. Organization and characteristics of modern digital computers with emphases on developing good programming habits, building abstractions with procedures and data, and programming in a modern computer language. Students who have received credit for 140 or 160 may not also receive credit for 102 without consent of the instructor.

**Revise prerequisite:**

302  **Fundamental Algorithms (3)**  
Prerequisite  140 and 160 (Formerly: Prerequisite 111 and 112)

311  **Discrete Structures (3)**  
Prerequisite CS 140, CS 160 and Math 300  
(Formerly: Prerequisite CS 111, CS 112 and Math 300)

340  **Foundations of Software Engineering (3)**  
Prerequisite  140, 160 and 311 (Formerly: Prerequisite 111, 112 and 311)

380  **Theory of Computation (3)**  
Prerequisite  140, 160 and 311 (Formerly: Prerequisite 111, 112 and 311)

**Effective Date:** Fall 1999

**GEOGRAPHY**

Add:

345  **Population and Environment (3)**  
Global and local patterns of population distribution and change as they relate to culture, economic development, technology, and the environment and the future.  
Prereq: Geography 101-102 or consent of instructor.

Add:

410  **Global Positioning Systems and Geographic Data (3)**  
Theory, and field and laboratory use of Global Positioning Systems for capturing digital geographic data; management of geographic data, including coordinate systems, datum issues, scanning and digitizing, map standards, and uncertainty in Geographic Information Systems.  2 hours lecture and 2 hours lab per week.
Add and crosslist:

423  **Geography of American Popular Culture** (3)
Geographical study of regional variation in popular cultures, especially focused on youth cultures in the United States. Prerequisite: Geography 320 or consent of instructor. Writing emphasis course. (Same as American Studies 423.)
Primary department is Geography.

Add:

466  **Teaching and Learning Geography** (3)
Preparing prospective teachers in the content, skills, strategies, and understandings needed for the effective teaching and assessment of geography in the K-12 schools. Course organization and content based largely on that of the *National Geography Standards*.

Add prerequisite:

334  **Meteorology** (3)
Prereq: 131 or consent of instructor. (Formerly: no prereq.)

Effective Fall 1999

GEOLOGICAL SCIENCES

On page 86 of the Undergraduate Catalog, revise Geological Sciences curriculum from:

Prerequisites to a B.S. major are:
Geology... from Physics 133-134 and ....

To:

Prerequisites to a B.S. major are:
Geology... from Physics 135-136 and ....

Add:

411  **Optical Mineralogy** (2)
Laboratory course on the principles of optical mineralogy. Use of petrographic microscope to identify rock-forming minerals with applications to petrology and environmental mineralogy. Prereq: 310.
Add:

412 Elements of X-ray Diffraction (2)
Laboratory course on principles and applications of X-ray diffraction. Phase identification, quantitative determination of mineral abundances in mixtures, and crystal structure determination. Prereq: 310.

Add:

486 Hydrogeology Laboratory (1)
Application and demonstration of hydrogeological principles in the field and laboratory. Prereq or Coreq: Geology 485 or Environmental Engineering 535 or consent of the instructor.

Revise course number and description from:

203 Geology of National Parks (3)
Geologically spectacular landscape and geologic history of national parks of the world. Human attempts to preserve the Earth’s geologic heritage. 3 lecture hours, plus a field trip during the term. May not be applied toward Geology major.

To:

303 Geology of National Parks (3)
Geologic principles, processes, and earth materials responsible for the spectacular landscapes of the national parks. Focus on interactions among internal earth processes, surficial earth processes, and human interactions. 3 lecture hours plus an optional field trip. Writing emphasis course. May not be applied toward Geology major.

HISTORY

Add:

323 Deviance and Persecution in the Christian West, 1100-1700 (3)
Emergence and shifts in movements of dissent; popular perceptions and ecclesiastical and civil policies and institutions designed to uncover and combat heretics, homosexuals, Jews and “witches.” (writing emphasis course)

Revise description from:

373 Historical Issues (3) Broad thematic issues in historical perspective. Lecture-discussion. Especially suitable for non-majors; also open to majors.
To:

373 Historical Issues (3) Variable content. Broad thematic issues in historical perspective. Lecture-discussion. Especially suitable for non-majors; also open to majors. May be repeated. Maximum 9 hours.

Add Crosslisting

381 History of South Africa (3) South African History from the pre-colonial period through apartheid and post-apartheid eras. Topics include African state formation and resistance to European colonization, the impact of industrialization, the evolution of modern resistance movements, and the first democratic elections in 1994. (Same as African-African American Studies 381) Writing emphasis course. Primary department is History.

On page 88, column A of the 1998-99 Undergraduate Catalog, revise description of History Major from:

(2) 24 upper-division hours, including one course dealing predominantly with a period prior to 1750; and (a) one course in European history; (b) one course in United States history; (c) two courses in the history of Latin America, Asia, or Africa, at least one of which must be in Asia or Africa.

To:

(2) 24 upper-division hours, including: (a) one course in European history; (b) one course in United States history; (c) two courses in the history of Latin America, Asia, or Africa, at least one of which must be in Asia or Africa; and (d) one additional course dealing predominantly with a period prior to 1750.

INTERDISCIPLINARY PROGRAMS

AFRICAN AND AFRICAN-AMERICAN STUDIES

Revise course number:

235 Introduction to African Studies
(Formerly 211)

Revise course number:

236 Introduction to African Studies
(Formerly 212)
Add crosslisting:

381  History of South Africa (3)
(Same as History 381)(Primary department is History.)

AMERICAN STUDIES

Add and Crosslist:

423  Geography of American Popular Culture (3)  (Same as Geography 423).
Primary Department is Geography.

CINEMA STUDIES

On page 88 of the 1998-99 Undergraduate Catalog  revise Cinema Studies minor from:

The Cinema Studies minor consists of fifteen hours, including 281 and either 235 or 236.

To:

The Cinema Studies minor consists of fifteen hours, including 281 and either 235, 236, or 330.

In addition, on that same page, add to the list of Approved Area courses, between Broadcasting 275 and Broadcasting 430, the following:

Broadcasting 330 Audio/Video Production (3);

COMPARATIVE LITERATURE

On page 89 of the 1998-99 Undergraduate Catalog, revise description of the major and minor from:

A major concentration in comparative literature consists of 27 hours including Comparative Literature 201. . . .from at least two of the following departments: Classics, English, Germanic and Slavic Languages, Religious Studies, Romance and Asian languages. Certain courses in Philosophy and Speech Communication. . . Students concentrating in. . . .

A minor in comparative literature consists of 18 hours including Comparative Literature 201 . . .should be chosen from the following departments: Classics, English, Germanic and Slavic Languages, Religious Studies, and Romance and Asian Languages. Certain Philosophy and Theater courses. . . Minors in comparative literature. . . .
To:

A major concentration in comparative literature consists of 27 hours including Comparative Literature 202. . . from at least two of the following departments: Classics, English, Modern Foreign Languages and Literatures, and Religious Studies. Certain courses in Philosophy, Theater, and interdisciplinary programs may be substituted with the approval of the chairperson of the Comparative Literature Program. Students concentrating in. . . .

A minor in comparative literature consists of 18 hours including Comparative Literature 202. . . should be chosen from the following departments: English, Modern Foreign Languages and Literatures, and Religious Studies. Certain courses in Philosophy, Theater, and interdisciplinary programs may be substituted with the approval of the chairperson of the Comparative Literature Program. Minors in comparative literature. . . .

Drop:

201 Introduction to Comparative Literature (3)

Revise description from:

202-203 Cross-Cultural Perspectives in World Literature (3, 3)
Literary perspectives and values in different time periods and cultures. Variable content. Writing-emphasis course.

To:

202-203 Cross-Cultural Perspectives in World Literature (3, 3)
Literary perspectives and values in different time periods and cultures, approached from an international context and including an introduction to the theory, methods, and objectives of comparative literature. Variable content. Writing-emphasis course.

MATH

Add:

495 Seminar in Actuarial Mathematics (1-3)
Introduction to principles and problem solving techniques in actuarial sciences with emphasis on the mathematical topics included in the initial Actuarial Exams. Prereq: 241, 251, and 323.

MODERN FOREIGN LANGUAGES AND LITERATURES

The majors, minors, and concentrations formerly found in the Departments of Germanic, Slavic, and
Asian Languages, and Romance Languages are merged into the newly formed Department of Modern Languages and Literatures.

While this administrative reorganization does not effect any of the names of degrees, majors, minors, or concentrations, the new Department of Modern Languages and Literatures will first appear in the 1999-2000 Undergraduate Catalog.

FRENCH

(Change major/minor curriculum to reflect the dropping of 353 (Aspects of French Literature) and to require a 400-level literature class for the language concentration.)

On page 98 of the 1998-99 Undergraduate Catalog column 2 revise the description from:

**French Major**: Consists of 30 hours in courses numbered 333 and above. All majors must have the following courses (or their equivalent with consent of the department): 333 or 334 or 345; 351-352; 353; 421; 422; 440. Literature concentration students must also have 6 hours of literature at the 400 level, 3 hours of which must be either 410, 411, 412, 413, 414, or 415; 3 hours of language-oriented or civilization courses at the 300 or 400 levels. Language concentration students must also have 9 hours of language-oriented or civilization courses at the 300 or 400 levels.

**French Minor**: The Minor consists of 18 hours in courses numbered 333 and above distributed accordingly: 333 or 334; 351-352; 353; 421; plus 3 hours of electives at the 300 or 400 levels.

To:

**French Major**: Consists of 30 hours in courses numbered 333 and above (French 300 does not count toward the major, but is recommended for students needing grammar review). All majors must have the following courses (or their equivalent with consent of the department): 333-334; 351-352; 421; 422; 440. Literature concentration students must also have 6 hours of literature at the 400 level, plus a 3-hours language-oriented or civilization course. Language concentration students must also have 6 hours of language-oriented or civilization courses, plus a 3-hour literature course at the 400-level. Exceptional students may substitute a 400-level course for either 333 or 334, with consent of the department.

**French Minor**: Consists of 18 hours in courses numbered 333 and above, distributed as follows: 333 or 334; 351-352; 421; plus six hours of electives at the 300 or 400 level. French 300 does not count toward the minor, but is recommended for students needing grammar review.

Drop

353 Aspects of French Literature
GERMAN

Add German 350 (German-Jewish Culture) to upper-level distribution, Foreign Studies courses. (Europe)

ITALIAN

Add:

414  Italian Cultural Studies (3)

This course will examine Italian culture as a set of practices characteristic of Italian society, from its mode of material production to its eating habits, dress codes, celebrations and rituals. The objective of the course is to achieve a greater understanding of contemporary Italian culture.

Add Italian 414 and 421 to the list of courses satisfying the Foreign Studies requirement (European)

SPANISH

On page 98 of the 1998-99 Undergraduate Catalog, revise description from:

Spanish Major: Consists of 33 hours in courses numbered 323 or above. The following are required: 323, 335, 336, 345, 346, 422, 423 or 424, 431 or 471, 459, three hours of 490 or 491, and any 400 level literature courses. Students must also have a minimum of 3 hours of civilization, either 431 or 471; a minimum of 6 hours of conversation and composition from 323, 324, 423 or 424; and a minimum of 6 hours of literature from 432, 435, 436, 450, 451, 452, 461, 473, 474, 479. Majors are encouraged to take as many hours as possible, especially the surveys, 435-436, and 473-474.

To:

Spanish Major: Consists of 30 hours in courses numbered 323 or above. The following are required: 323, 335, 336, 421, 422, 431 or 471, 459. Remaining hours can be chosen from language, literature or civilization courses. Students must have a minimum of 6 hours of literature at the 400 level, and 6 hours of conversation and/or composition courses. The survey courses (435-436 and 473-474) are strongly recommended. Majors are encouraged to take as many hours as possible.

MUSIC

On page 92 of the 1998-99 Undergraduate Catalog delete the entire paragraph immediately following the faculty listing that states “In June 1991, the merger of the ...”
On page 92 of the 1998-99 Undergraduate Catalog insert the following immediately prior to the existing heading, “ENSEMBLES”

Audition Requirements

All new music students (freshman and transfer) must perform an audition in applied music and take a music theory examination, the results of which will determine his or her placement in applied music and theory. Both the audition and theory exam should be completed during a visit to the University prior to final arrival to begin classes. Applicants are urged to contact the Department to schedule appointments for satisfying both requirements as early as possible, but certainly no later than the Summer Orientation period.

No student officially progresses to a Major in Music until both the audition and entrance examination have been successfully completed.

Minimum Performance Standards

Potential performance and music education majors not meeting minimum performance standards, but showing potential, will be allowed to register for applied music (Music 140--Fundamentals of Performance) in order to attain the desired level. Such students are normally expected to demonstrate sufficient progress by the end of the first academic year to perform on a level commensurate with a freshman student accepted without reservation by the Department. The addition of the extra semesters of study usually results in lengthening the period needed to satisfy requirements for advanced standing (300 level).

Students entering any one of the three emphases in music education must complete the same audition procedures as those of performance majors. At the end of the second year or after having completed the required courses, students will participate in an interview with an appointed Admissions Board. Upon receiving the positive recommendation from this board, students are admitted to the teacher education program and permitted to take required upper division education courses.

Students who pursue the music education curriculum are subject to all rules and regulations of the Teacher Education Program, which is housed in the College of Education, notwithstanding the fact that their degree will be awarded from the College of Arts and Sciences.

On page 92 of the 1998-99 Undergraduate Catalog delete the entire paragraph under the heading “ENSEMBLES” that starts “A student’s preference for musical organization...” and ends “...previous performance experience at the University.” and replace the existing section entitled “ENSEMBLES” with the following statement:

ENSEMBLES

Ensemble participation during each semester of residence is required of all students studying applied music. Students are required to participate in ensembles appropriate to their specific degree
program as approved by the faculty of the department. String students must participate in the university symphony orchestra. The Department of Music requires all music students to participate, with credit or as a registered auditor, in a major instrumental or vocal organization each term in residence (on campus) as a music major, as approved by the student’s advisor and the directors of the organizations concerned. Students preparing to be band directors are expected to enroll in marching band unless officially excused. Instrumental Major Options: Concert Band, Campus Band, University Marching Band, or university Orchestra. Vocal Major: Concert Choir, Chamber Singers or Women’s Chorale. Students should consult the Department of Music Undergraduate Student Handbook for additional information on ensemble requirements.


On page 93 of the 1998-99 Undergraduate Catalog delete the entire paragraph under “APPLIED MUSIC” that begins “Non-music students will be accepted at the secondary level ...”

On page 93 of the 1998-99 Undergraduate Catalog insert the following immediately prior to the existing catalog heading “Bachelor of Music in Music Education”

**Keyboard Skills Proficiency Examination**

Proficiency in keyboard skills is required of all music majors and is usually acquired in the four-semester series of Class Piano I, II, III, IV (Mus Kbd 110, 120, 210, 220). Students who already possess keyboard skills may pass a proficiency examination in lieu of these courses.

**Recital Attendance Policy**

The faculty of the Department of Music believes that exposure to a variety of live musical performances is an important part of the education of students studying music at the University level. As a result, the faculty has put in place a recital attendance requirement for undergraduate music students. Regular recital attendance helps students to become acquainted with accepted norms of recital presentation, furnishes them with opportunities to get to know and respect the talents of other students and faculty in the Department of Music, and helps them to establish the habit of attending musical performances after graduation. Specific recital attendance requirements are listed in the Department of Music Undergraduate Student Handbook.

On page 93 of the 1998-99 Undergraduate Catalog delete the entire paragraph under Bachelor of Music in Music Education beginning “The Department of Music requires all music students to participate...” and ending “…Chamber Singers and Women’s Chorale.”

On page 93, 94, 95, 96 of the 1998-99 Undergraduate Catalog delete the note, “Must take 1 year of two languages from French, German or Italian” from the end of every concentration with the exception of the concentration in Voice, page 96.

On page 93, second column of the 1998-99 Undergraduate Catalog revise “The Bachelor of Arts Degree-Music Major...” from:
The Bachelor of Arts Degree—Music Major Music Course Requirements Prerequisites: Music Theory 110,120 (6); Music Theory 130, 140 (2); Music Performance 100 Level (2). Courses toward the major: Music Theory 210,220 (6); Music History 200 (3); Music History 210, 220 (6); Music Performance 200 level or above (four semester minimum) (8); Music General 200-4 semester minimum (0); Music Ensemble (4); Music Theory 310 (3) 3 hours selected from: Music History 350, 380, 390. Music electives (0-3 hours) selected from: Music History 460 (3); Music General 301 (0); Music Theory 493 (3) or Music History 493 (3); Music General 411 (0). Total of 43-46 hours.

To:

The Bachelor of Arts Degree—Music Major Music Course Requirements Prerequisites: Music Theory 110,120 (6); Music Theory 130, 140 (2); Music Performance 100 Level (2). Courses toward the major: Music Theory 210,220 (6); Music Theory 230, 240 (2); Music History 200 (3); Music History 210, 220 (6); Music Performance 200 level or above (four semester minimum) (8); Music General 200 (4 semester minimum) (0); Music Ensemble (4); Music Theory 310 (3) 3 hours selected from: Music History 350, 380, 390. Music electives (0-3 hours) selected from: Music History 460 (3); Music General 301 (0); Music Theory 493 (3) or Music History 493 (3); Music General 411 (0). Total of 45-48 hours.

1. Students must complete a minimum of four semesters of Music Performance, major instrument/voice at the 200 level or above.
2. Music General 200 must be completed a minimum of four semesters.

Degree requires a minimum of 124 hours. Remainder of hours to be structured per requirements as outlined in the catalog section “Requirements for Degrees” in the general section of the College of Arts and Sciences catalog entry.

On page 93 of the 1998-99 Undergraduate Catalog revise B.M. Curriculum in Music Education-Instrumental Emphasis from:

B.M. Curriculum in Music Education-Instrumental Emphasis (Five-year option)

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<th>Hours Credit</th>
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<tbody>
<tr>
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<table>
<thead>
<tr>
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<tr>
<td>Music Theory 210,220</td>
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<td>Music General 200</td>
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<tr>
<td>Music History 210,220</td>
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</table>
Undergraduate Council Minutes
of January 21, 1999

Page 12304

Music Education 210 4
Music Education 220 2
Music Performance (Minor woodwind instrument) 2
Music Ensemble 2
Psychoeducational Studies 210 3
Natural Science 3
Math 115 3

**Junior**

Music Theory 310 3
Music Theory 320 2
Music Performance (major instrument) 4
Music General 200 0
Music Education 350 2
Music History 380 3
Music Ensemble 2
Music Education 310,320 6
Music Performance (Minor brass instrument) 2
Social Science 3
Non-US History 3

**Senior**

Music Performance (major instrument) 4
Music General 200 0
Music General 301 0
Music Ensemble 2
Music Education 240 2
Music Education 420 3
Music Education 430 3
Music Education 440 2
Education 400 2
Education 401 3
Education 486 3
Non-US History 3

Total: 125 hours

To:

B.M. Curriculum in Music Education-Instrumental Emphasis (Five-year option)

<table>
<thead>
<tr>
<th><strong>Freshman</strong></th>
<th><strong>Hours Credit</strong></th>
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<tr>
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<td>Music Theory 210,220</td>
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<tr>
<td>Music Theory 230,240</td>
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<tr>
<td>Music History 210,220</td>
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<td>Music Education 210</td>
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<td>Music Education 220</td>
<td></td>
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<tr>
<td>Music Performance (Minor woodwind instrument)</td>
<td></td>
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<tr>
<td>Music Ensemble</td>
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<tr>
<td>Psychoeducational Studies 210</td>
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</tr>
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<td>Natural Science</td>
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<td>Music Theory 310</td>
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<td>Music History 380</td>
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<td>Music Ensemble</td>
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<tr>
<td>Music Education 310,320</td>
<td></td>
</tr>
<tr>
<td>Music Performance (Minor brass instrument)</td>
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<td>Social Science</td>
<td></td>
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<tr>
<td>Non-US History</td>
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<tr>
<td><strong>Senior</strong></td>
<td></td>
</tr>
<tr>
<td>Music Performance (major instrument)</td>
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<tr>
<td>Music General 200</td>
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<td>Music General 301</td>
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<td>Music Ensemble</td>
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<td>Music Education 240</td>
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<td>Music Education 420</td>
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<td>Music Education 430</td>
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<td>Music Education 440</td>
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<tr>
<td>Education 400</td>
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<td>Education 401</td>
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<tr>
<td>Education 486</td>
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<td>Non-US History</td>
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**Internship Year**

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<td>Electives in Music Education or Music</td>
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</table>

Total: 125 hours plus 24 graduate hours

On page 93 of the 1998-99 *Undergraduate Catalog* revise B.M. Curriculum in Music Education-Instrumental Emphasis (4 year alternative) from:

B.M. Curriculum in Music Education-Instrumental Emphasis (4 year alternative)

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Credit</th>
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<td>Music Theory 130,140</td>
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<tr>
<td>Music Performance (major instrument)</td>
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</tr>
<tr>
<td>Music Ensemble</td>
<td>2</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0</td>
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<td>Music Education 230</td>
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<tr>
<td>Foreign Language</td>
<td>6</td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
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<tr>
<td>Music Theory 210,220</td>
<td>6</td>
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<tr>
<td>Music Theory 230,240</td>
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<tr>
<td>Music Performance (major instrument)</td>
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<tr>
<td>Music General 200</td>
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<td>Music Education 210</td>
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<tr>
<td>Music Education 220</td>
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<tr>
<td>Music Performance (Minor Woodwind Instrument)</td>
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<td>Natural Science</td>
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<td>Math 115</td>
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<td><strong>Junior</strong></td>
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<tr>
<td>Music Theory 310</td>
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<tr>
<td>Music Theory 320</td>
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<td>Music History 380</td>
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<tr>
<td>Music Ensemble</td>
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</table>
Music Education 310, 320  6
Music Performance (Minor brass instrument)  2
Social Science  3
Non-US History  3

**Senior**
Music Performance (major instrument)  4
Music General 200  0
Music General 301  0
Music Ensemble  2
Music Education 240  2
Music Education 420  3
Music Education 430  3
Music Education 440  2
Education 400  2
Education 401  3
Education 486  3
Non-US History  3

Total:  125 hours

To:

B.M. Curriculum in Music Education-Instrumental Emphasis (4 year alternative)

<table>
<thead>
<tr>
<th><strong>Freshman</strong></th>
<th><strong>Hours Credit</strong></th>
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<tbody>
<tr>
<td>English 101,102</td>
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<tr>
<td>Music Theory 110, 120</td>
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<td>Music Ensemble</td>
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<tr>
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<tr>
<td>Music Education 230</td>
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<tr>
<td>Foreign Language</td>
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<table>
<thead>
<tr>
<th><strong>Sophomore</strong></th>
<th><strong>Hours Credit</strong></th>
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<tr>
<td>Music Theory 210, 220</td>
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<tr>
<td>Music Theory 230, 240</td>
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<tr>
<td>Music Performance (major instrument)</td>
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<tr>
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<td>Natural Science</td>
<td>3</td>
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<tr>
<td>Math 115</td>
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</table>
Junior
Music Theory 310  3
Music Theory 320  2
Music Performance (major instrument)  2,2
Music General 200  0,0
Music Education 350  2
Music History 380  3
Music Ensemble  2
Music Education 310,320  6
Music Performance (Minor brass instrument)  1,1
Social Science  3
Non-US History  3

Senior
Music Performance (major instrument)  2
Music General 200  0
Music General 301  0
Music Ensemble  2
Music Education 240  2
Music Education 400  12
Music Education 401  0
Music Education 420  3
Music Education 430  3
Music Education 440  2
Education 400  2
Education 401  3
Education 4863  3
Non-US History  3

Total:  137 hours

On page 95 of the 1998-99 Undergraduate Catalog revise the curriculum B.M. Curriculum in Piano from:

Freshman
English 101,102  6
Music Theory 110,120  6
Music Theory 130,140  2
Music Performance 180  8
Music Ensemble  2
Music General 200  0
Music History 200  3
Foreign Language  6

Sophomore
Music Theory 210,220  6
Music Theory 230,240  2
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<td>Music Keyboard 420,430</td>
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<td>Music Theory 310</td>
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<td>Music Performance 380</td>
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<td>Music General 301</td>
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<td>Music Ensemble 399</td>
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<td>Social Science</td>
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<td>Non-US History</td>
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<td>Electives</td>
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**Total:** 130 hours

To:

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<tr>
<td>Music Performance 180</td>
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<td>Music General 200</td>
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<tr>
<td>Foreign Language</td>
<td>6</td>
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<tr>
<td><strong>Sophomore</strong></td>
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</tr>
<tr>
<td>Music Theory 210,220</td>
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<tr>
<td>Music Theory 230,240</td>
<td>2</td>
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<tr>
<td>Music Performance 280</td>
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<tr>
<td>Music General 200</td>
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</table>
Undergraduate Council Minutes
of January 21, 1999

Music History 210,220 6
Music Ensemble 399 2
Natural Science 6
Music Electives 3

**Junior**
Music History 380 3
Music Keyboard 420,430 6
Music Theory 310 3
Music Performance 380 4,4
Music General 200 0,0
Music General 301 0
Music Ensemble 399 2
Music Education 310 3
Social Science 6
Electives 3

**Senior**
Music Keyboard 230 1
Music Keyboard 340 3
Music Performance 480 4,4
Music General 200 0,0
Music General 401 0
Music Ensemble 399 2
Non-US History 6
Electives 10

Total: 130 hours

**On page 95 of the 1998-99 Undergraduate Catalog revise the curriculum B.M. Curriculum in Piano Pedagogy and Literature from:**

<table>
<thead>
<tr>
<th><strong>Freshman</strong></th>
<th><strong>Hours Credit</strong></th>
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<tbody>
<tr>
<td>English 101,102</td>
<td>6</td>
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<tr>
<td>Music Theory 110,120</td>
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<td>Music History 200</td>
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<td>Electives</td>
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<table>
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<tr>
<th><strong>Sophomore</strong></th>
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<tr>
<td>Music Theory 210,220</td>
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<tr>
<td>Course</td>
<td>Credits</td>
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**Junior**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Music History 380</td>
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</tr>
<tr>
<td>Psychology 110</td>
<td>3</td>
</tr>
<tr>
<td>Social Science</td>
<td>3</td>
</tr>
<tr>
<td>Music Keyboard 360,370</td>
<td>6</td>
</tr>
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<td>Music Theory 310</td>
<td>3</td>
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<td>Music Performance 380</td>
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<tr>
<td>Music Ensemble 399</td>
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<tr>
<td>Electives</td>
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**Senior**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Music Keyboard 230</td>
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<tr>
<td>Music Performance 480</td>
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<tr>
<td>Music General 200</td>
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<td>Music General 401</td>
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Total: 130 hours

**To:**

**Freshman**

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<td>Music Theory 110,120</td>
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<td>Music Theory 130,140</td>
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<td>Foreign Language</td>
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<tr>
<td>Electives</td>
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**Sophomore**

<table>
<thead>
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<th>Course</th>
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<tbody>
<tr>
<td>Music Theory 210,220</td>
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<tr>
<td>Music Theory 230,240</td>
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</tr>
<tr>
<td>Music Performance 280</td>
<td>3,3</td>
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<tr>
<td>Music General 200</td>
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</tbody>
</table>
Music History 210,220 6
Music Ensemble 399 2
Natural Science 6
Music Keyboard 340,350 6

**Junior**

Music History 380 3
Psychology 110 3
Social Science 3
Music Keyboard 360,370 6
Music Theory 310 3
Music Performance 380 3,3
Music Keyboard 480 3
Music General 200 0,0
Music General 301 0
Music Ensemble 399 2
Music Education 310 3
Electives 3

**Senior**

Music Keyboard 230 1
Music Keyboard 420,430 6
Music Performance 480 3,3
Music General 200 0,0
Music General 401 0
Music Ensemble 399 2
Non-US History 6
Music Electives 2
Music Keyboard 490-491 Internship 4

Total: 130 hours

**On page 95 of the 1998-99 Undergraduate Catalog revise the curriculum B.M. Curriculum in Strings from:**

<table>
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<tr>
<th>Freshman</th>
<th>Hours Credit</th>
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<tbody>
<tr>
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<tr>
<td>Music Theory 110,120</td>
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<td>Music Theory 130,140</td>
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<tr>
<td>Music General 200</td>
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<td>Music History 200</td>
<td>3</td>
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<tr>
<td>Natural Science</td>
<td>3</td>
</tr>
<tr>
<td>Music Keyboard 110,120</td>
<td>2</td>
</tr>
</tbody>
</table>
Sophomore
Music Theory 210,220 6
Music Theory 230,240 2
Music Performance 280 8
Music General 200 0
Music History 210,220 6
Music Ensemble 399 2
Music Keyboard 210,220 2
Foreign Language 6

Junior
Music History 380 3
Social Science 6
Music Theory 310, 320 5
Music Performance 380 8
Music General 200 0
Music General 301 0
Music Ensemble 399 2
Music Electives 4
Natural Science 3

Senior
Music Education 310 3
Music Performance 480 8
Music General 200 0
Music General 401 0
Music Ensemble 399 2
Music Instrument 340,350 6
Non-US History 6
Electives 10

Total: 130 hours

To:

Freshman
English 101,102 6
Music Theory 110,120 6
Music Theory 130,140 2
Music Performance (100 level) 4,4
Music Ensemble 2
Music General 200 0
Music History 200 3
Natural Science 3
Music Keyboard 110,120 2
Undergraduate Council Minutes
of January 21, 1999
Page 12314

**Sophomore**
- Music Theory 210,220 6
- Music Theory 230,240 2
- Music Performance (200 level) 4,4
- Music General 200 0,0
- Music History 210,220 6
- Music Ensemble 399 2
- Music Keyboard 210,220 2
- Foreign Language 6

**Junior**
- Music History 380 3
- Social Science 6
- Music Theory 310, 320 5
- Music Performance (300 level) 4,4
- Music General 200 0,0
- Music General 301 0
- Music Ensemble 399 2
- Music Education 310 3
- Music Electives 2
- Natural Science 3

**Senior**
- Music Performance (400 level) 4,4
- Music General 200 0,0
- Music General 401 0
- Music Ensemble 399 2
- Music Instrument 340,350 6
- Non-US History 6
- Electives 12

Total: 130 hours

**On page 95 of the 1998-99 Undergraduate Catalog revise the curriculum B.M. in Studio Music and Jazz from:**

**Freshman**
- English 101,102 6
- Music Theory 110,120 6
- Music Theory 130,140 2
- Music Performance 6
- Music Performance 2
- Music Ensemble 2
- Music General 200 0
- Music History 200 3
- Music History 350 3
- Music Jazz 130,140 2

**Hours Credit**
Sophomore
Music Theory 210,220 6
Music Theory 230,240 2
Music Jazz 120 2
Music Jazz 210, 220 4
Music Performance 6
Music General 200 0
Music History 210,220 6
Music Ensemble 2
Social Science Electives 6

Junior
Music History 380 3
Music Theory 310 3
Music Theory 320 2
Music Jazz 310,320 4
Music Performance 6
Music General 200 0
Music General 301 0
Music Ensemble 2
Natural Science 6
Foreign Language 6

Senior
Music Jazz 410 3
Music Jazz 420 1
Music Theory 290 3
Music Performance 6
Music Ensemble 2
Music General 200 0
Music General 401 0
Non-US History 6
Electives 12

Total: 131 hours

To:

Freshman
English 101,102 6
Music Theory 110,120 6
Music Theory 130,140 2
Music Performance (100 level) 3,3
Music Jazz 110 2
Music Ensemble 2
Music General 200 0
Music History 200 3
Music History 350 3
Music Jazz 130,140 2
### Sophomore
- Music Theory 210,220: 6 hours
- Music Theory 230,240: 2 hours
- Music Jazz 120: 2 hours
- Music Jazz 210, 220: 4 hours
- Music Performance (200 level): 3.3 hours
- Music General 200: 0 hours
- Music History 210,220: 6 hours
- Music Ensemble: 2 hours
- Social Science Electives: 6 hours

### Junior
- Music History 380: 3 hours
- Music Theory 310: 3 hours
- Music Theory 320: 2 hours
- Music Jazz 310,320: 4 hours
- Music Performance (300 level): 3.3 hours
- Music General 200: 0 hours
- Music General 301: 0 hours
- Music Ensemble: 2 hours
- Natural Science: 6 hours
- Foreign Language: 6 hours

### Senior
- Music Jazz 410: 3 hours
- Music Jazz 420: 1 hour
- Music Theory 290 or 340: 3 hours
- Music Performance (400 level): 3.3 hours
- Music Ensemble: 2 hours
- Music General 200: 0 hours
- Music General 401: 0 hours
- Non-US History: 6 hours
- Electives: 12 hours

Total: 131 hours
On page 93 of the 1998-99 *Undergraduate Catalog*, revise the curriculum B.M. Curriculum in Music Education-Vocal/General Concentration/Keyboard Emphasis to:

<table>
<thead>
<tr>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Freshman</strong></td>
</tr>
<tr>
<td>English 101, 102</td>
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<tr>
<td>Music Theory 110, 120</td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
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<td>Music Performance (Keyboard)</td>
</tr>
<tr>
<td>Music Performance (Voice)</td>
</tr>
<tr>
<td>Music Education 240</td>
</tr>
<tr>
<td>Music General 200</td>
</tr>
<tr>
<td>Music Ensemble</td>
</tr>
<tr>
<td>Music History 200</td>
</tr>
<tr>
<td>Foreign Language</td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
</tr>
<tr>
<td>Music Theory 210, 220</td>
</tr>
<tr>
<td>Music Theory 230, 240</td>
</tr>
<tr>
<td>Music Performance (Keyboard)</td>
</tr>
<tr>
<td>Music Performance (Voice)</td>
</tr>
<tr>
<td>Music General 200</td>
</tr>
<tr>
<td>Music Ensemble</td>
</tr>
<tr>
<td>Music History 210, 220</td>
</tr>
<tr>
<td>Music Ed. 260</td>
</tr>
<tr>
<td>Psychoeducational Studies 210</td>
</tr>
<tr>
<td>Natural Science</td>
</tr>
<tr>
<td>Math 115</td>
</tr>
<tr>
<td><strong>Junior</strong></td>
</tr>
<tr>
<td>Music Theory 310</td>
</tr>
<tr>
<td>Music Theory 320</td>
</tr>
<tr>
<td>Music Performance (Keyboard)</td>
</tr>
<tr>
<td>Music General 200</td>
</tr>
<tr>
<td>Music Ensemble</td>
</tr>
<tr>
<td>Music Ed. 310, 320</td>
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<tr>
<td>Social Science</td>
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<td>Music Ed. 200</td>
</tr>
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<td>Music Ed. 210</td>
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<tr>
<td>Music Ensemble 399</td>
</tr>
<tr>
<td>Music Theory 450</td>
</tr>
<tr>
<td>Music History 380</td>
</tr>
<tr>
<td>Non-US History</td>
</tr>
<tr>
<td><strong>Senior</strong></td>
</tr>
<tr>
<td>Music Performance (Keyboard)</td>
</tr>
<tr>
<td>Music General 200</td>
</tr>
<tr>
<td>Music Ensemble</td>
</tr>
<tr>
<td>1Music General 301</td>
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</tbody>
</table>
Music Education 330 3
Music Education 420 3
Music Education 430 3
Music Education 350 1
Education 400 2
Education 401 3
Education 486 3
Non-US History 3

Total: 127 hours

1Full Recital Optional with approval of major area.

On page 94 of the 1998-99 Undergraduate Catalog, revise the curriculum B.M. Curriculum in Music Education-Vocal/General Concentration/Keyboard Emphasis (4 year alternative) to:

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<tbody>
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<tr>
<td>English 101, 102 6</td>
</tr>
<tr>
<td>Music Theory 110, 120 6</td>
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<tr>
<td>Music Theory 130, 140 2</td>
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<tr>
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<tr>
<td>Music Performance (Voice) 1,1</td>
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<tr>
<td>Music History 200 3</td>
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<tr>
<td>Social Science 3</td>
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<tr>
<td>Foreign Language 6</td>
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<tr>
<td><strong>Sophomore</strong></td>
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<tr>
<td>Music Theory 210, 220 6</td>
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<td>Music Theory 230, 240 2</td>
</tr>
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<td>Music Performance (Voice) 1,1</td>
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<tr>
<td>Music History 210, 220 6</td>
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<td>Music Education 260 2</td>
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<td>Psychoeducational Studies 210 3</td>
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<td>Natural Science 3</td>
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<tr>
<td>Non-US History 3</td>
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<td>Math 115 3</td>
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<tr>
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Music Theory 320 2
Music Performance (Keyboard) 2,2
Music General 200 0,0
Music Ensemble 2
Education 400 2
Education 401 3
Education 486 3
Music Education 310, 320 6
Music Education 350 1
Music Education 200 2
Music Education 210 2
Music Education 330, 430 6
Music Ensemble 399 2

**Senior**
Music Performance (Keyboard) 2
Music General 200 0,0
Music Ensemble 1
1 Music General 301 0
Music Education 420 3
Music Education 400 12
Music Education 401 0
Music History 380 3
Non-US History 3
Music Theory 450 2

Total: 136 hours

1. Full Recital Optional with approval of major area.

---

On page 94 of the 1998-99 Undergraduate Catalog, revise the curriculum B.M. Curriculum in Music Education/Vocal-General/Vocal Emphasis to:

### Hours Credit

**Freshman**

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<tbody>
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<tr>
<td>Music History 200</td>
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<tr>
<td>1Foreign Language</td>
<td>6</td>
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<tr>
<td>Music Keyboard 110, 120</td>
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<tr>
<td>Music Education 240</td>
<td>2</td>
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</table>
### Sophomore
- Music Theory 210, 220: 6 hours
- Music Theory 230, 240: 2 hours
- Music Performance (Voice): 2.2 hours
- Music General 200: 0 hours
- Music Ensemble: 2 hours
- Music History 210, 220: 6 hours
- Music Education 260: 2 hours
- Psychoeducational Studies 210: 3 hours
- Natural Science: 3 hours
- Math 115: 3 hours
- Music Keyboard 210, 220: 2 hours

### Junior
- Music Theory 310: 3 hours
- Music Theory 320: 2 hours
- Music Performance (Voice): 2.2 hours
- Music General 200: 0 hours
- Music Ensemble: 2 hours
- Music Ed. 310, 320: 6 hours
- Social Science: 3 hours
- Music Education 200: 2 hours
- Music Education 210: 2 hours
- Music Education 250: 2 hours
- Music History 380: 3 hours
- Music Theory 450: 2 hours
- Non-US History: 3 hours

### Senior
- Music Performance (Voice): 2.2 hours
- Music General 200: 0 hours
- Music Ensemble: 2 hours
- Music General 301: 0 hours
- Music Education 330: 3 hours
- Music Education 420: 3 hours
- Music Education 430: 3 hours
- Music Education 350: 1 hour
- Education 400: 2 hours
- Education 401: 3 hours
- Education 486: 3 hours
- Non-US History: 3 hours

---

Total: 127 hours

---

1. Full Recital Optional with approval of major area.
On page 94 of the 1998-99 Undergraduate Catalog, revise the curriculum, B.M. Curriculum in Music Education/Vocal-General/Vocal Emphasis (4 year alternative) to:

<table>
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<td>Foreign Language</td>
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<td>Social Science</td>
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<td>Music Education 260</td>
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<td>Psychoeducational Studies 210</td>
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<tr>
<td>Natural Science</td>
<td>3</td>
</tr>
<tr>
<td>Non-US History</td>
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</tr>
<tr>
<td>Music Keyboard 210, 220</td>
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<tr>
<td>Music Ensemble</td>
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<td>Music Ed. 310, 320</td>
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<tr>
<td>Music Education 210</td>
<td>2</td>
</tr>
<tr>
<td>Music Education 250</td>
<td>2</td>
</tr>
<tr>
<td>Music Education 330</td>
<td>3</td>
</tr>
<tr>
<td>Music Education 430</td>
<td>3</td>
</tr>
<tr>
<td>Music Education 350</td>
<td>1</td>
</tr>
<tr>
<td>Education 400</td>
<td>2</td>
</tr>
<tr>
<td>Education 401</td>
<td>3</td>
</tr>
<tr>
<td>Education 486</td>
<td>3</td>
</tr>
</tbody>
</table>
Senior
Music Performance (Voice) 2
Music General 200 0
Music Ensemble 1
Music General 301 0
Music Education 400 12
Music Education 401 0
Music Education 420 3
Music History 380 3
Music Theory 450 2
Non-US History 3

Total: 136 hours

1 Full Recital Optional with approval of major area.

On page 94 of the 1998-99 Undergraduate Catalog, revise the curriculum B.M. Curriculum in Organ to:

<table>
<thead>
<tr>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Freshman</strong></td>
</tr>
<tr>
<td>English 101, 102 6</td>
</tr>
<tr>
<td>Music Theory 110, 120 6</td>
</tr>
<tr>
<td>Music Theory 130, 140 2</td>
</tr>
<tr>
<td>Music History 200 3</td>
</tr>
<tr>
<td>Music Performance 4,4</td>
</tr>
<tr>
<td>Music Ensemble 2</td>
</tr>
<tr>
<td>Foreign Language 6</td>
</tr>
<tr>
<td>Music General 200 0,0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Sophomore</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Music Theory 210, 220 6</td>
</tr>
<tr>
<td>Music Theory 230, 240 2</td>
</tr>
<tr>
<td>Music History 210, 220 6</td>
</tr>
<tr>
<td>Music Performance 290 4,4</td>
</tr>
<tr>
<td>Music Ensemble 0</td>
</tr>
<tr>
<td>Music General 200 0,0</td>
</tr>
<tr>
<td>Electives 3</td>
</tr>
<tr>
<td>Non-US History 6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Junior</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Music History 380 3</td>
</tr>
<tr>
<td>Music Theory 310 3</td>
</tr>
<tr>
<td>Music Performance 390 4,4</td>
</tr>
<tr>
<td>Music Keyboard 230 1</td>
</tr>
<tr>
<td>Music Keyboard 240 1</td>
</tr>
<tr>
<td>Music Theory 430 3</td>
</tr>
</tbody>
</table>
Music Ensemble 2
Music General 200 0,0
Music General 301 0
Social Science 6
Electives 3

**Senior**
Music Education 310 3
Music Keyboard 310, 320 2
Electives 6
Music Performance 490 4,4
Music Ensemble 2
Natural Science 6
Music General 200 0,0
Music General 401 0
Music Keyboard 460, 470 6

Total: 129 hours

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**On page 95 of the 1998-99 Undergraduate Catalog, revise the curriculum Sacred Music (Organ or Voice) to:**

<table>
<thead>
<tr>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Freshman</strong></td>
</tr>
<tr>
<td>English 101, 102 6</td>
</tr>
<tr>
<td>Music Theory 110, 120 6</td>
</tr>
<tr>
<td>Music Theory 130, 140 2</td>
</tr>
<tr>
<td>Music History 200 3</td>
</tr>
<tr>
<td>Music Performance 155 or 190 3,3</td>
</tr>
<tr>
<td>Music Ensemble 2</td>
</tr>
<tr>
<td>¹Music Performance 2</td>
</tr>
<tr>
<td>Foreign Language 6</td>
</tr>
<tr>
<td>Music General 200 0,0</td>
</tr>
</tbody>
</table>

| **Sophomore** |
| Natural Science 6 |
| Music Theory 210, 220 6 |
| Music Theory 230, 240 2 |
| Music History 210, 220 6 |
| Music Performance 255 or 290 3,3 |
| Music Ensemble 2 |
| ¹Music Performance 2 |
| Music General 200 0,0 |
| ²Areas Studies 2-4 |

| **Junior** |
| Religious Studies 6 |
| Music History 380 3 |
Music Theory 310 3
Music History 480 3
Music History 490 3
Music Performance 355 or 390 3,3
Music Ensemble 2
Music General 200 0,0
Music General 301 0
Music Education 310, 320 6

**Senior**

Non-US History 6

3 Area Studies 6-8
Music Performance 455 or 490 3,3
Music Ensemble 2
Music Education 330 3
Music General 200 0,0
Music General 401 0

4 Electives 8

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Total: 130 hours

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1 Organ majors take Class Voice (Music Voc 110-120) and/or Voice (Music Performance 155). Voice majors take Class Piano (Music Kbd 110-120, 210-220) or Organ (Music Performance 190)
2 Organ majors take Keyboard Harmony (Music Kbd 230) 1; Church Service Playing I (Music Kbd 240) 1; Voice majors take Functional Diction for Singers (Music Voice 425) 3.
3 Organ majors take Church Service Playing II-III (Music Kbd 310-320) 1,1 and The Organ and Its Literature I-II (Music Kbd 460-470) 3,3. Voice majors take Vocal Pedagogy I-II (Music Voc 450-460) 1,1 and Choral Literature (Music Voc 580-585) 2,2.

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**On page 96 of the 1998-99 Undergraduate Catalog, revise the B.M. Curriculum in Theory/Composition to:**

<table>
<thead>
<tr>
<th>Hours Credit</th>
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</thead>
<tbody>
<tr>
<td><strong>Hours Credit</strong></td>
</tr>
<tr>
<td><strong>Freshman</strong></td>
</tr>
<tr>
<td>English 101, 102</td>
</tr>
<tr>
<td>Music Theory 110, 120</td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
</tr>
<tr>
<td>Music History 200</td>
</tr>
<tr>
<td>Music Keyboard 110, 120</td>
</tr>
<tr>
<td>Music Ensemble</td>
</tr>
<tr>
<td>Music General 200</td>
</tr>
<tr>
<td>Foreign Language</td>
</tr>
<tr>
<td>Music Theory 340</td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
</tr>
<tr>
<td>Music Theory 210, 220</td>
</tr>
<tr>
<td>Music Theory 230, 240</td>
</tr>
<tr>
<td>Course</td>
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<tr>
<td>---------------------------------------------</td>
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<tr>
<td>Music History 210, 220</td>
</tr>
<tr>
<td>Music Theory 250</td>
</tr>
<tr>
<td>Music Theory 290</td>
</tr>
<tr>
<td>Music Keyboard 210, 220</td>
</tr>
<tr>
<td>Music Theory 390</td>
</tr>
<tr>
<td>Music Ensemble</td>
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<tr>
<td>Non-US History</td>
</tr>
<tr>
<td>Music General 200</td>
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</tbody>
</table>

### Junior

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Music Theory 310</td>
<td>3</td>
</tr>
<tr>
<td>Music Theory 320</td>
<td>3</td>
</tr>
<tr>
<td>Music History 380</td>
<td>3</td>
</tr>
<tr>
<td>Music Performance</td>
<td>2</td>
</tr>
<tr>
<td>(^1\text{Area Study})</td>
<td>6</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0,0</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>2</td>
</tr>
<tr>
<td>Electives</td>
<td>6</td>
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<tr>
<td>Natural Science</td>
<td>6</td>
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</table>

### Senior

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Music Theory 430, 440</td>
<td>6</td>
</tr>
<tr>
<td>Music Performance</td>
<td>2</td>
</tr>
<tr>
<td>(^1\text{Area Study})</td>
<td>6</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>2</td>
</tr>
<tr>
<td>(^2\text{Arts and Sciences Electives})</td>
<td>6</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0,0</td>
</tr>
<tr>
<td>Electives</td>
<td>6</td>
</tr>
<tr>
<td>Social Science</td>
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</tbody>
</table>

Total: 129 hours


\(^2\text{Humanities-Arts (Non-music), Literature, Philosophical Perspectives, Interdisciplinary Studies.}\)

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On page 98 of the 1998-99 *Undergraduate Catalog*, revise the curriculum B.M. Curriculum in Voice to:

<table>
<thead>
<tr>
<th>Hours Credit</th>
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<tbody>
<tr>
<td><strong>Freshman</strong></td>
</tr>
<tr>
<td>English 101, 102</td>
</tr>
<tr>
<td>Music Theory 110, 120</td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
</tr>
<tr>
<td>Music History 200</td>
</tr>
<tr>
<td>Music Performance 155</td>
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<td><strong>Sophomore</strong></td>
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<tr>
<td><strong>Junior</strong></td>
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<tr>
<td><strong>Senior</strong></td>
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</tbody>
</table>

Total: 133 hours

¹Must take 1 year of two languages from French, German or Italian.
²Humanities-Arts (Non-music) Literature, Philosophical Perspectives, Interdisciplinary Studies.
On page 96 of the 1998-99 *Undergraduate Catalog*, revise the curriculum B.M. Curriculum in Woodwind, Brass and Percussion Instruments to:

<table>
<thead>
<tr>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Freshman</strong></td>
</tr>
<tr>
<td>English 101, 102</td>
</tr>
<tr>
<td>Music Theory 110, 120</td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
</tr>
<tr>
<td>Music History 200</td>
</tr>
<tr>
<td>Music Performance (100 level)</td>
</tr>
<tr>
<td>Music Ensemble</td>
</tr>
<tr>
<td>Music Keyboard 110, 120</td>
</tr>
<tr>
<td>Foreign Language</td>
</tr>
<tr>
<td>Music General 200</td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
</tr>
<tr>
<td>Music Theory 210, 220</td>
</tr>
<tr>
<td>Music Theory 230, 240</td>
</tr>
<tr>
<td>Music History 210, 220</td>
</tr>
<tr>
<td>Music Performance (200 level)</td>
</tr>
<tr>
<td>Music Ensemble</td>
</tr>
<tr>
<td>Music Keyboard 210, 220</td>
</tr>
<tr>
<td>Social Science</td>
</tr>
<tr>
<td>Music General 200</td>
</tr>
<tr>
<td><strong>Junior</strong></td>
</tr>
<tr>
<td>Music Theory 310</td>
</tr>
<tr>
<td>Music Theory 320</td>
</tr>
<tr>
<td>Music Performance (300 level or above)</td>
</tr>
<tr>
<td>Music Ensemble</td>
</tr>
<tr>
<td>Music History 380</td>
</tr>
<tr>
<td>Area Literature and Pedagogy</td>
</tr>
<tr>
<td>Music General 200</td>
</tr>
<tr>
<td>Music General 301</td>
</tr>
<tr>
<td>Electives</td>
</tr>
<tr>
<td>Natural Science</td>
</tr>
<tr>
<td><strong>Senior</strong></td>
</tr>
<tr>
<td>Music Education 310</td>
</tr>
<tr>
<td>Music Electives</td>
</tr>
<tr>
<td>Music Performance (400 level)</td>
</tr>
<tr>
<td>Music Ensemble</td>
</tr>
<tr>
<td>Music General 200</td>
</tr>
<tr>
<td>Music General 401</td>
</tr>
<tr>
<td>Non-US History</td>
</tr>
<tr>
<td>Electives</td>
</tr>
</tbody>
</table>

Total: 127 hours
MUSIC GENERAL

Add:

310  **Practical Experience in Arts Management** (3)
Arts management practicum with approved arts organization. Individualized work with music instructor in conjunction with supervised experience in arts organization management. For music majors only. Prerequisite: consent of instructor. May be repeated for credit in another area of arts management.

MUSIC KEYBOARD

Add:

420-430  **Piano Literature I, II** (3,3)  420-From 1750 to middle 19th century; 430-middle 19th century to present.

MUSIC THEORY

Revise description from:

110-120  **Theory I, II** (3,3)
Materials of music including basic elements through triads and seventh chords and modulation. Exercises in writing and analysis of music with emphasis on common practice.

To:

110-120  **Theory I, II** (3,3)
Materials of music including basic elements through secondary dominants and modulation. Exercises in analysis, composition, and improvisation of music with emphasis on common practice. Must be taken in sequence.

From:

210-220  **Theory III, IV** (3,3)
Materials of music with emphasis on literature of Classic, Romantic, and Contemporary periods. Exercises in writing and analysis. Must be taken in sequence. Prereq: 120 or consent of instructor.

To:

210-220  **Theory III, IV** (3,3)
Materials of music including altered chords and analytical methods. Emphasis on literature of the Classic, Romantic, and Contemporary periods. Exercises in analysis, composition and improvisation of music. Must be taken in sequence. Prereq: 120 or consent of instructor.
PHYSICS

On page 97 of the 1998-99 Undergraduate Catalog, revise the description and the curriculum of B.S. Major from:

**B. S. Major**: The undergraduate physics major provides a thorough introduction to all of the core disciplines of physics so that students are prepared to pursue related specialties later in their careers. Students with special interests are encouraged to pursue those interests through research projects and/or independent study under the direction of members of the Physics faculty.

Prerequisites of the major are: Physics 137-138 and Mathematics 141-142.

**The major consists of**: Mathematics 231 and 241; Physics 240, 311-312, 321, 361, 411-412, 421, 431-432, and 461. Physics 401 is recommended. Total Major hours: 41.

To:

**B. S. Major**: The undergraduate physics major provides a thorough introduction to all of the core areas of physics so that students are prepared to pursue related specialties later in their careers. Students with special interests are encouraged to pursue those interests through additional courses, research projects and/or independent study under the direction of members of the Physics faculty.

The Department offers two concentrations: Applied and Academic.

The Applied Concentration is intended for students planning a post-graduate career in industry or secondary education. The Academic Concentration is intended for students planning post-graduate studies in physics or a related field.

Prerequisites of the Major are: Physics 137-138 or Physics 135-136, Mathematics 141-142 and Computer Science 102.

The Major with an Applied Concentration consists of: Mathematics 241; Physics 240, 311-312, 321, 361, 401, 421, 441-442, 453-454 and 461. Total Major hours: 40


Add:

**441-442**: Contemporary Physics (3,3)
An introduction to the major fields of contemporary physics: Cosmology, Astrophysics, Geophysics, Biophysics, Condensed Matter Physics, Atomic Physics, Nuclear Physics, and High Energy Physics. The fundamental concepts of each field will be discussed and applied to areas of current research interest. Must be taken in sequence. Prereq: 240 or equivalent, 311-312, 321.

Add:

**453-454**: Team Research Project (3,3)
Student teams will carry out major experimental or computational projects. The team in consultation with the instructor will choose the topic and develop a plan for the project. Each team will conduct several oral presentations in an independent manner, carry out the project, and produce a final written report. Must be taken in sequence. Prereq: 361, 461.
Revise Description and Prerequisite from:

311-312  **Mechanics (3,3)**
311-Kinematics and dynamics of single particle systems, rotating reference systems, many body systems. 312-Many body systems, rigid bodies, Lagrangian and Hamiltonian mechanics, small oscillations and normal modes. Must be taken in sequence. Prereq or Coreq: For 311: 136 or 138 or 231; Mathematics 231. Coreq: 312: Mathematics 241.

To:

311-312  **Mechanics (3,3)**
311-Kinematics and dynamics of single particle systems, rotating referencing systems. 312-Many body systems, rigid bodies, Lagrangian and Hamiltonian mechanics. Strong emphasis on programming and numerical methods. Must be taken in sequence. Prereq: For 311: 136 or 138 or 231, Computer Science 102. Coreq: 312: Mathematics 241.

**POLITICAL SCIENCE**

On page 97, column 2 of the 1998-99 Undergraduate Catalog, revise description from:

**Honors in Political Science**: The Honors concentration encourages highly motivated students to obtain a superior liberal education and more rigorous preparation in the discipline. Admission is selective. The Honors concentration is normally a two year program. Political Science 101 or 107, and 102 are prerequisites to the major. The major consists of 27 hours of courses numbered 300 or above.......

To:

**Honors in Political Science**: The Honors concentration encourages highly motivated students to obtain a superior liberal education and more rigorous preparation in the discipline. Admission is selective. The Honors concentration is normally a two year program. Political Science 101 or 107, and 102 are prerequisites to the major. The major consists of 27 hours of courses numbered 300 or above, including 387, 388, 487 and 488....

On page 97, column 2 of the 1998-99 Undergraduate Catalog, revise description from:

Comparative Government and Politics: 350, 355, 361, 452, 454, 455, 459, 461, 464

To:

Comparative Government and Politics: 350, 355, 361, 452, 454, 459, 461, 463
Major in Political Science with a concentration in Public Administration: Students majoring in Political Science who wish to prepare for a career in the public service may select to follow the concentration in Political Science. Political Science 101 or 107, 102 and Economics 201 are prerequisites to the major in Political Science with a concentration in Public Administration. Corequisite courses are Mathematics 123 and Mathematics 115 or Statistics 201 and Accounting 201 and 202. Majors must earn a “C” or better in prerequisite and corequisite courses. The concentration consists of 24 hours of upper division course work in Political Science and course work in Economics and Accounting. In Political Science, students must include one course in each of the four fields of Political Science: American Government and Politics/Public Administration, Comparative Government and Politics, International Relations, and Political Theory. Students must also complete Political Science 340 and 401 and two of the following: Political Science 440, 441 or 442. Students must complete Economics 201 and two from the following: Economics 471, 472 or Accounting 201.

To:

Major in Political Science with a concentration in Public Administration: Students majoring in Political Science who wish to prepare for a career in the public service may select to follow the concentration in Public Administration. Political Science 101 or 107, 102 and Economics 201 are prerequisites to the major in Political Science with a concentration in Public Administration. The concentration consists of course work in Political Science, Economics, and Accounting. Students must complete Political Science 340, 401, two of the following: Political Science 440, 441 or 442; and two of the following: Economics 471, 472 or Accounting 201. Students must also include one course in each of the three remaining fields of Political Science: Comparative Government and Politics, International Relations, and Political Theory.

Revise Course description from:

494 Internship (1-6)
Prereq: Consent of department. May be repeated. Maximum of 6 hours. S/NC only.

To:

494 Internship (1-6)
Prereq: Consent of department. May be repeated. Maximum of 6 hours. May not be counted toward requirements for the Political Science major. S/NC only.

PSYCHOLOGY

On p. 97 of the 1998-99 Undergraduate Catalogue under Major, the first paragraph, revise description from:

The Department offers two concentrations, General and Academic. The General Concentration is a broad major with many options. The Academic Concentration is intended for those students planning post graduate study in psychology or a related field and has fewer options.

To:

The Department offers two concentrations, General and Academic. The General Concentration in Psychology offers flexibility for those who wish to tailor their major. The Academic Concentration in
Psychology is structured to assure a broad foundation in both substantive and research traditions of psychology. Early advising on the selection of a concentration is important.

On p. 97 of the 1998-99 Undergraduate Catalogue under Major, the second paragraph, second sentence revise description from:

Completion of this concentration requires (1) 375, 385, or 395;

To:

Completion of this Concentration requires one of the following: Psychology 385, Math 115, or Statistics 201.

On p. 97 of the 1998-99 Undergraduate Catalogue under Major, the second paragraph, last sentence revise description from:

NOTE: Only 3 hours of 399, 489, 491, 492, 493 may be used in this major.

To:

NOTE: Any combination of six hours of 399, 489, 491, 492, 493 may be used in this major. An additional six hours may be used as electives.

On p. 97 of the 1998-99 Undergraduate Catalogue under Major, the fourth paragraph, add the following sentence at the end.

NOTE: Any combination of six hours of 399, 489, 491, 492, 493 may be used in this major. An additional six hours may be used as electives.

Revise prerequisite:

210  Biological Basis of Behavior (3)
     Prerequisite: 110 (Formerly 110 or equivalent, or consent of instructor)

220  Behavior and Experience: Humanistic Psychology (3)
     Prerequisite: 110 (Formerly 110 or equivalent, or consent of instructor)

300  Child Psychology (3)
     Prerequisite: 110 (Formerly 210 or 220 or consent of instructor)

310  Learning and Thinking (3)
     Prerequisite: 110 (Formerly 110 or equivalent and 210 or 220 or consent of instructor)

320  Motivation (3)
     Prerequisite: 110 (Formerly 110 or equivalent and 210 or consent of instructor)
Abnormal Psychology (3)
Prerequisite: 110 (Formerly 110 or equivalent and 210 or 220 or consent of instructor)

Social Psychology (3)
Prerequisite: 110 (Formerly 110 or equivalent and 210 or 220)

Methods of Research in Psychology (3)
Prerequisite: 110 and Psych 385 or Math 115 or Stat 201; and Junior (60 semester hours) standing. (Formerly 110 or equivalent; Psych 385 or Math 115 or Stat 210 or equivalent.)

Cognitive Psychology: Language and Symbolic Processes (3)
Prerequisite: 110 and Junior standing (60 semester hours) or consent of instructor. (Formerly 310 or consent of instructor.)

Group Facilitation (3)
Prerequisite: 110 and Junior standing (60 semester hours) or consent of instructor. (Formerly 359 and consent of instructor.)

Sensory Processes and Perception (3)
Prerequisite: 110 and Junior standing (60 semester hours) or consent of instructor. Psych 385 or Math 115 or Stat 201 or Graduate Standing. (Formerly 210, Psych 385)

Psychology of Religion (3)
Prerequisite: 110 and Junior standing (60 semester hours) or consent of instructor. (Formerly Junior or Senior standing)

History and Systems (3)
Prerequisite: 110 and Junior standing (60 semester hours) or consent of instructor or Graduate standing. (Formerly 110, 210 or 220 and 3 upper division courses in Psychology.)

Psychology and the Law (3)
Prerequisite: 110 and Junior standing (60 semester hours) or consent of instructor. (Formerly 110 or equivalent, upper division standing and consent of instructor.)

History and Systems of Psychology (3)
Prerequisite: 110 and Junior standing (60 semester hours) or consent of instructor. (Formerly 110 or equivalent, 210)

Psychology of Gender (3)
Prerequisite: 110 and Junior standing (60 semester hours) or consent of instructor. (Formerly 110 or equivalent, 210 or 220)

Organizational Psychology (3)
Prerequisite: 110 and 360 and Junior standing (60 semester hours) or consent of instructor. (Formerly Psych 360)
445 **Measurement and Testing** (3)
Prerequisite: 110, Psych 385 or Math 115 or Stat 201 and Junior standing
(60 semester hours) or consent of instructor. (Formerly Psych 385 or equivalent.)

461 **Physiological Psychology** (3)
Prerequisite: 110 and Junior standing (60 semester hours) or consent of instructor.
One of the following three course sequences: Biology 130 and 140, Anthropology 110
and 210. (Formerly 110 or equivalent, 210, one year of biology or zoology
sequences.)

470 **Theories of Personality** (3)
Prerequisite: Psych 110 and Junior standing (60 semester hours) or consent of instruc-
tor. (Formerly 220 and 300 or 330)

475 **Adolescent Development** (3)
Prerequisite: Psych. 110 and Junior Standing (60 semester hours) or consent of in-
structor. (Formerly 300)

480 **Theories of Learning** (3)
Prerequisite: Psych. 110 and Junior standing (60 semester hours) or consent of in-
structor. (Formerly 310.)

496 **Senior Seminar: Great Ideas in Psychology** (3)
Prerequisite: Senior (90 semester hours) standing. (Formerly: Consent of instructor
and senior standing.)

Revise prerequisite and repetition:

382 **Contemporary Topics in Psychology** (3)
Prerequisite: 110 and upper division standing (30 or more semester hours). Maxi-
um 6 hours may be applied toward major. May be repeated.(Formerly: 110 or
equivalent and 210 or 220, or consent of instructor. May be repeated Maximum 6
hours may be applied toward major.)

399 **Supervised Research and Field Work** (3)
Prerequisite: Consent of instructor. Note: Any combination of six hours of 399, 489,
491, 492, 493 may be used in major. An additional six hours may be used as elective.
May be repeated. (Formerly 110 and 210 or 220; and 385 or Stat 201 or Math 115 or
equivalent, or consent of instructor. May be repeated. There is no restriction on the
number of times or hours this course can be repeated. Maximum 12 hours in 399,
489, 491, 492 or 493 combined may be applied toward the major.)

Drop prerequisite and revise description from:

385 **Statistics in Psychology** (3)
...Prerequisite  Math 110. Not open to students with credit in Math 115,
Stat 201, or equivalent.
To:

385 Statistics in Psychology (3)
...Not open to students with credit in Math 115 or Stat 201.

Revise prerequisite and description from:

482 Topics in Psychology (3)
...Prerequisite: 210 or 220, Junior or Senior standing; at least 9 hours in 300 level courses. Recommended 385, 395.

To:

482 Topics in Psychology (3)
...Prerequisite: Psych 110 and Junior standing (60 semester hours) or consent of instructor. No more than six hours of Psychology 382 and Psychology 482 may count towards the major. An additional 6 hours of Psych 382 and 482 may count as electives. May be repeated.

From:

489 Supervised Research (1-9)
Prereq: Consent of instructor. May be repeated. Maximum 12 hours in 399, 489, 491, 492, 493 combined may be applied toward the major. F, Sp

To:

489 Supervised Research (1-9)
Prereq: Junior standing (60 semester hours) and consent of instructor. Note: Any combination of six hours of 399, 489, 491, 492, or 493 may be used in this major. An additional six hours may be used as electives. May be repeated.

From:

491 Foreign Study (1-15)
Prereq: Consent of instructor. May be repeated. Maximum 12 hours in 399, 489, 491, 492, and 493 combined may be applied toward the major. F, Sp

To:

491 Foreign Study (1-15)
Prereq: Junior standing (60 semester hours) and consent of instructor. Note: Any combination of six hours of 399, 489, 491, 492, or 493 may be used in this major. An additional six hours may be used as electives. May be repeated.

From:

492 Off-Campus Study (1-15)
Prereq: Consent of instructor. May be repeated. Maximum 12 hours in 399, 489, 491, 492, and 493 combined may be applied toward the major. F, Sp
To:  
492  **Off-Campus Study** (1-15)  
Prereq: Junior standing (60 semester hours) and consent of instructor. Maximum 12 hours in 399, 489, 492 and 493 combined may be applied toward the major. Note: Any combination of six hours of 399, 489, 491, 492, 493 may be used in this major. An additional six hours may be used as electives. May be repeated.

From:  

493  **Independent Study** (1-15)  
Prereq: Consent of instructor. May be repeated. Maximum 12 hours in 399, 489, 491, 492, 493 combined may be applied toward the major. F, Sp

To:  

493  **Independent Study** (1-15)  
Prerequisite: Junior (60 semester hours) and consent of instructor. Note: Any combination of six hours of 399, 489, 491, 492, 493 may be used in this major. An additional six hours may be used as electives. May be repeated.

Effective Date: Fall 1999

SOCIOLOGY

On pg. 99 of the 1998-99 Undergraduate Catalog (paragraph one), revise prerequisites:

**Major**

From:

Before applying to the Sociology Department for admission to the major a student must complete either Sociology 110 or 120 and Sociology 200 with no grade lower than a C and with a 2.5 average for the two courses.

To:

Before applying to the Sociology Department for admission to the major a student must complete either Sociology 110 or 120 with a grade of C+ or above.

**Minor**

From:

Prerequisites to the minor are six lower division hours in Sociology which must include 200.

To:  
Prerequisite to the minor is three lower division hours in Sociology (either 110 or 120)
Minor with concentration in Environment and Society:

From:

Prerequisites to the minor are Sociology 200 and either Sociology 110 or 120.

To:

Prerequisite to the minor either Sociology 110 or 120.

Effective Date: 1999
Enclosed are the agenda items being submitted by the College of Business Administration for approval by the Undergraduate Council on January 21, 1998. The faculty approved these changes on November 7, 1998. A summary of these changes follows:

Summary


2. Logistics and Transportation: Drop Logistics and Transportation 401 and 402.

3. Management: Revise prerequisites for Management 471 Drop crosslisting of Economics 343 for Management 311

Attachment

Dr. Cary M. Collins, Chair
Undergraduate Policies Committee
ECONOMICS

ADD:

436 Economics of Health and Health Care: (3) Medical care and health status; demand for medical care and insurance; physician and hospital supplies; government provision of services and insurance; regulation of health care markets. Writing emphasis course.

Effective Fall 1999

DROP:

100 Survey of Economic Ideas (3)

Effective Fall 1999

324 Comparative Economic Systems (3)

Effective Fall 1999

325 History of the North Atlantic Community (3)

Effective Fall 1999

343 Labor Relations and Collective Bargaining (3)

Effective Fall 1999

491 Honors Seminar (3)

Effective Fall 1999

LOGISTICS AND TRANSPORTATION

DROP:

401 Materials and Traffic Management (3) Planning and management of logistics activities including purchasing, transportation, storage and control, and supply strategies. Materials management tools and organizational structures for various industries. Prereq: 301-302.

402 Transportation Operations and Cost Management (3) Freight carrier operations with the development of carrier costs and their control considered by each mode individually and in coordination with each other. Prereq: 301, 302.

Effective Date: Fall 1999
MANAGEMENT

REVISE PREREQUISITE:

FROM:
471 International Management (3)
Prereq: 301

TO:
471 International Management (3)
No prereq.

Effective Date: Fall 1999

DROP CROSSLISTING page 188 of 1998 catalog.

FROM:
311 Labor Relations and Collective Bargaining (3)
American labor history, structure and philosophy of contemporary unions, nature of collective bargaining, and dispute settlement. (Same as Economics 343)

TO:
311 Labor Relations and Collective Bargaining (3)
American labor history, structure and philosophy of contemporary unions, nature of collective bargaining, and dispute settlement.

Effective Date: Fall 1999
December 18, 1998

To: Undergraduate Council
Fr: Eric Haley, Interim Associate Dean, The College of Communications
Re: Changes in curriculum for the 1999-2000 catalog

Dr. Tober and Undergraduate Council Members,

The following curriculum changes have been approved by the College of Communications faculty effective Fall, 1999. In summary the changes include revision of the interdisciplinary communications minor in light of prerequisite courses, and the expansion of political science options for advertising majors.

The change in the interdisciplinary minor is motivated by “truth in labeling.” In light of the pre-requisites, the minor as listed in the 1998-99 catalog is actually 21 hours instead of the 18 we intended. Changing the requirements in the proposed manner does not require us to change the pre-requisites for any courses, and it reduces the potential demand for our already overcrowded 300-level courses. We have also added a line suggesting that students interested in an interdisciplinary communications minor meet with the undergraduate associate dean. This meeting will help students develop an appropriate course of study for completion of the minor, and it will help the college gauge interest in the minor.

The change in the political science requirement for advertising students will better accommodate students transferring from other Colleges within the University. After speaking with the head of the political science department, we concluded that either political science 101 or 102 would satisfy our intentions of having the political science requirement. The change was prompted by the department’s thorough examination of past substitution requests.

Thank you for considering the following proposed changes,

Respectfully,

Eric Haley, Ph.D.
Interim Associate Dean of Undergraduate Studies and Advising
ADVERTISING – Sophomore Year

On page 107 of the 1998-99 Undergraduate Catalog, revise Advertising Curriculum

From:

<table>
<thead>
<tr>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political Science 101………… 3</td>
</tr>
</tbody>
</table>

To:

| Political Science 101 or 102….3 |

Effective date: Fall, 1999

MINORS

On page 106 of the 1998-99 Undergraduate Catalog, revise Minors curriculum

From:

“A minor in Communications consists of a total of 18 hours as follows: Communications 100 or Speech Communication 100; Advertising 250, Broadcasting 275, Public Relations 270, or Speech Communication 260; and four additional upper division courses in advertising, broadcasting, communications, journalism, public relations or speech communication.”

To:

“An 18 hour interdisciplinary minor in communications for non-majors is available that consists of either Communications 100 or Speech Communication 100; two 200-level sequence introduction courses (Advertising 250, Broadcasting 275, Journalism 200, Public Relations 270, Speech Communication 260); and three upper division courses across the two sequences in which the 200-level introductory courses have been taken. Students seeking an interdisciplinary minor should see the College of Communications undergraduate associate dean.”

Effective date: Fall, 1999
MEMORANDUM

DATE: January 5, 1999

TO: Dr. Linda Tober, Assistant Dean
    Undergraduate Academic Affairs

FROM: Tom George

RE: Items Approved by Academic Affairs

In the following you will find curricular changes from three units. These materials have been approved by the College's Academic Affairs Committee and we now request that they be placed on the agenda of the Undergraduate Council.

The EDSMRT Unit is adding the Teacher Education prerequisite to EDSMRT 486 to better utilize its limited resources which can be devoted to this offering. In addition to changing two course descriptions and altering prerequisites for two other courses, the Exercise Science Unit is adding an optional research course for senior level students. Finally, the Rehabilitation and Deafness Unit is dropping five courses. Three of these courses, which have been cross-listed with Audiology and Speech Pathology, were formerly taken by students in the long defunct Special Education concentration in Speech and Hearing. The remaining two courses have been replaced by Audiology and Speech Pathology 582.

Please call if further information is needed.
Revise Prerequisite

From:
EDSMRT 486  Introduction to Instructional Computing (3)  Classroom uses of computers, applications for teachers, overview of computer operation and software for teachers of all grades.  F
To:
EDSMRT 486  Introduction to Instructional Computing (3)  Classroom uses of computers, applications for teachers, overview of computer operation and software for teachers of all grades.  Prereq:  Admission to Teacher Education.  E

Effective: Fall, 1999

Exercise Science

Revise Description

From:
Exercise Science 380  Special Topics (1-3)  Study in selected disciplinary or professional areas of Physical Education.  May be repeated.  Maximum of 6 hours.  Prereq: Progression to the major.

To:
Exercise Science 380  Special Topics (1-3)  Study in selected disciplinary or professional areas of Exercise Science.  May be repeated.  Maximum of 6 hours.  Prereq: Progression to the major.

Effective Fall 1999

From:
Exercise Science 493  Directed Independent Studies (1-3)  Independent study in a specialized area with physical education.  May be repeated.  Maximum 9 hours.  Prereq: Consent of advisor and progression to the major.  Satisfactory/No Credit or letter grade.
To:
Exercise Science 493  Directed Independent Studies (1-3)  Independent study in a specialized area with Exercise Science.  May be repeated.  Maximum 9 hours.  Prereq: Consent of advisor and progression to the major.  Satisfactory/No Credit or letter grade.

Effective Fall 1999
Revise Prerequisite

From:
Exercise Science 426  Exercise Science Practicum II (1-6) Supervised experience in exercise/fitness areas. May be repeated for a maximum of 10 hours. Satisfactory/No Credit grading only. Prereq: 260, 322, 332, 414, progression to the major and consent of instructor.

To:
Exercise Science 426  Exercise Science Practicum II (1-6) Supervised experience in exercise/fitness areas. May be repeated for a maximum of 10 hours. Satisfactory/No Credit grading only. Prereq: Progression to the major and consent of instructor.

From:
Exercise Science 490 Exercise Physiology/Fitness Internship (12-15) Full-time practicum in exercise/fitness at approved agency. Satisfactory/No Credit grading only. Prereq: 442, 426, 480, and consent of instructor.

To:
Exercise Science 490 Exercise Physiology/Fitness Internship (12-15) Full-time practicum in exercise/fitness at approved agency. Satisfactory/No Credit grading only. Prereq: 414, 422, 426, 480, progression to major, and consent of instructor.

Add Course

Exercise Science 497 Honors Research Project (3-6) Senior research project done under supervision of a faculty member. Includes design of research project, writing proposal for institutional review board approval, data collection and analysis, and presentation of results. Project should be approved with two semesters of study remaining. Prereq: Senior standing.

Effective Fall 1999

Rehabilitation and Deafness

Drop Crosslisting

RD 371 Audiology I (3) (Same as Audiology and Speech Pathology 371.) Primary department is Audiology and Speech Pathology.

RD 473 Audiology I (3) (Same as Audiology and Speech Pathology 473.) Primary department Audiology and Speech Pathology.

RD 494 Aural Habilitation/Rehabilitation of the Hearing Impaired (3) (Same as Audiology and Speech Pathology 494.) Primary department is Audiology and Speech Pathology.

Effective Fall 1999
Drop

**RD 482 Speech and Language Services in the Schools (3)** Organizaiton and implementation of speech and language programs. Emphasis on the IEP process as it affects assessment, case-selection, and programming for students age 4-21. Procedures and materials, group intervention, and classroom consultation. Prereq: Admission to Teacher Education Program.

**RD 483 Clinical Practice in Communication Disorders in Schools (3)** Supervised practice with children with communication disorders. Prereq: 482 and Audiology and Speech Pathology 433, 434 (80-100 clinical contact hours) and admission to Teacher Education Program.

Effective Fall 1999
MEMORANDUM

To: Undergraduate Council

From: Fred Gilliam

Subject: College of Engineering Agenda for January 21, 1999 Meeting

Date: January 6, 1999

A summary of the College of Engineering agenda for the January 21 meeting is shown below. The detailed proposals are attached. Each agenda item has been approved by the faculty of the College of Engineering.

College of Engineering

Revise requirements for general education courses in the humanities and social sciences

Chemical Engineering

Add two courses
Drop one course
Revise four courses
Revise degree requirements regarding grades in Chemical Engr. courses
Revise requirements for Chemical Engineering Honors Program
Revise requirements for progression to upper-division status
Revise showcase curriculum

Civil and Environmental Engineering

Drop one course
Revise four courses
Revise showcase curriculum

Electrical Engineering

Change departmental name to Electrical and Computer Engineering
Add a degree program for a Bachelor of Science in Computer Engineering
Add a showcase curriculum for Computer Engineering
Revise Electrical Engineering showcase curriculum
Revise 10 courses
Drop two courses

**Engineering Physics**

Revise showcase curriculum

**Industrial Engineering**

Revise showcase curriculum
Drop one course
Add one course
Revise five courses

**Materials Science and Engineering**

Add one course
Revise one course
Revise showcase curriculum

**Mechanical and Aerospace Engineering and Engineering Science**

Revise Aerospace Engineering showcase curriculum
Revise Engineering Science showcase curriculum
Revise Engineering Science, Biomedical Engr. Concentration showcase curriculum
Revise Mechanical Engineering showcase curriculum

**Nuclear Engineering**

Drop four courses
Add four courses
Revise one course
Drop the term “Fission Engineering Concentration” from first NE degree program
Revise Nuclear Engineering showcase curriculum
Revise Nuclear Engineering, Radiological Engr. Concentration showcase curriculum
COLLEGE OF ENGINEERING
UNDERGRADUATE CURRICULUM CHANGES
JANUARY, 1999

COLLEGE OF ENGINEERING

On page 117 of the 1998-99 Undergraduate Catalog, change the section on Humanities and Social Science Electives as follows:

General Education Electives.

Engineering practice is shaped by many non-technical considerations. Economic, safety and ethical matters have long been of concern. In recent years increasing influence has been exerted by legal, political, governmental, cultural, and international factors. Courses in the humanities and social sciences serve to meet the vital need for awareness and knowledge of these influences on the engineering profession. In addition, they support the UTK general education goal to develop the basic skills, knowledge, attitudes and judgment necessary for effective citizenship, fulfilling personal interactions and an enriched personal life. Lastly, ABET accreditation requirements mandate a strong general education component as a necessary part of achieving engineering program and institutional objectives.

Humanities and social science courses contribute significantly to the educational objectives of each engineering program and the program outcomes desired of every engineering graduate. In fact, certain program outcomes are critically dependent on contributions from these courses. Thus, in the College of Engineering, humanities and social science courses do more than ensure adequate breadth in the educational experience. They also complement and support engineering courses in developing skills and providing experiences critical to the practice of engineering.

Program outcomes supported by the general education component in engineering curricula and a cluster of courses relevant to that outcome are shown below. The first two outcomes, (1) the broad education necessary to understand the impact of engineering solutions in a global/societal context and (2) a knowledge of contemporary issues, have a fundamental relationship to humanities and social science courses. All engineering students are required to take at least one course from each of these clusters. Engineering programs may specify up to two other clusters that are required in their curriculum to ensure that each program outcome is achieved by either engineering coursework, general education electives, or a combination of the two.

General education requirements in English composition, mathematics, and natural science are fully satisfied by required courses in each engineering curriculum. Electives from the humanities and social sciences, in addition to supporting selected engineering program outcomes, must also satisfy UTK general education requirements for these areas of study. Thus, to ensure general education compliance, engineering students must take at least two courses from the arts or humanities clusters; one course from multicultural studies or a two course foreign language sequence; and one course from the social sciences cluster. Additional general education electives can be chosen from any cluster to provide breadth or depth as desired by the student, but a minimum of 18 semester hours is required.
To be accepted as valid within the context of the University’s general education requirements, each course should meet the generally accepted definitions that (1) humanities are the branches of knowledge concerned with humanity and culture; (2) the arts include performance and/or analysis of the visual and written arts, music or theatre, and (3) social sciences are the studies of individual relationships in and to society. Subject areas in the humanities include history, English, philosophy, religion, and classics. The arts will include courses in music, art, theatre and creative writing. Subject areas in the social sciences include sociology, psychology, economics, anthropology, and political science. Acceptability is determined by course content, not by title or administrative home.

Examples of courses not acceptable in the engineering general education program include: (1) a language course in the student’s native language; (2) military science courses unless they are either on the approved list or officially equivalent to a course in the humanities or social sciences in another department; (3) courses whose basic content is science or mathematics; (4) engineering economy; and (5) professional courses in other fields - business, communications, etc.

A course not on the approved list must be approved by the student’s advisor, department head, and the associate dean (in this order), and the approval must be recorded on a departmental substitution form and submitted to the Records office. Transfer courses must be so approved, unless a suitable UTK equivalent course number has been assigned as a part of the admissions process.

A student is urged to seek guidance from his or her advisor in choosing these electives, since they are an important part of the learning experience in preparation for engineering practice. Choices should be made on the basis of personal interest and value in engineering practice. Up to 9 hours in this category may be taken on an S/NC grading basis. Credit earned by Advanced Placement or courses transferred from another university as “Satisfactory” are included in the 9 hour limit. However, if more than 9 hours of general education courses have been earned by AP or transfer credit, students may apply for a waiver of the 9 hour limit.

These requirements are not intended to inhibit in any way the selection of courses to be taken by a student while attending UTK. There may be courses of interest to a student which are not included on the lists below, but would be of great value in the student’s education. Students are encouraged to consult with their advisor in order to incorporate such courses into their program of study.

The requirements for the general education component of all engineering curricula are:

1. The minimum number of semester credit hours of acceptable courses is 18.
2. One course from the Engineering Practice in a Global/Societal Context Cluster.
3. One course from the Contemporary Issues Cluster.
4. Other courses or clusters as established by departmental requirements to support selected program outcomes.
5. A minimum of:
   a. two courses from the Humanities or Arts clusters,
   b. one course from the Multicultural Studies Cluster or two foreign language courses,
   c. one course from the Social Sciences Cluster.
6. Courses may simultaneously meet more than one requirement (e.g. a multicultural course may also satisfy the Engineering Practice in a Global/Societal Context Cluster).

7. For a foreign language to be used in meeting general education requirements (a) at least two courses in the same language must be taken and (b) the language cannot be the native language of the student.

APPROVED GENERAL EDUCATION ELECTIVES

Courses included on the list below have been approved by the faculty as general education electives. Any course not on this list must be approved through the major department prior to enrollment in the course. Where such phrases as “any psychology course” are used, special topics courses in that area are specifically excluded since the content is variable. Students should seek approval from their advisor prior to enrollment in such special topics courses.

Engineering Practice in a Global/Societal Context Cluster


Contemporary Issues Cluster

African and African-American Studies 343, 364, 420, 429, 442, 473, 480, 483; Agriculture 333; American Studies 343, 345, 380, 420, 440; Anthropology 130, 320; Architecture 403, 404, 410; Child and Family Studies 220, 240, 420; Communications 100, 150, 400; Geology 201, 202; History 380, 440, 446; Philosophy 240, 290, 342, 344, 345, 346, 349, 380, 382, 390, 393; Political Science 311, 350, 420; Religious Studies 319; Sociology 110, 319, 330, 340, 343, 344, 345, 346, 360, 363, 375, 414, 415, 442, 446, 451, 462, 464; Speech Communication 469; University Studies 311, 321, 322; Women’s Studies 220, 230, 310, 360, 375.

Multi-disciplinary Teams Cluster

Counselor Education and Counseling Psychology 206, Psychology 360, 409, 440; Sociology 220, 320; Speech Communication 220, 230, 240, 300, 310, 320, 330, 420.

Professional and Ethical Responsibility Cluster

Military Science 420; Philosophy 240, 342, 344, 345, 346; Religious Studies 344, 345; University Studies 322.
Effective Communications Cluster
   English 263, 295, 355, 360, 455; Information Science 450; Journalism 450, 456;
   Speech Communication 210, 220, 230, 240, 260, 310, 320, 330, 420; Theatre 220,
   221, 226. Any sequence of foreign language courses.

Life-Long Learning Cluster
   Cultural Studies in Education 302, 451; Philosophy 110, 111, Psychology 310.

Aesthetics in Design Cluster
   Anthropology 361; Architecture 111, 211, 212, 213, 405, 406, 412, 413, 414,
   415, 416, 417, 419, 420, 421, 422; Art History 172, 173, 183, 411, 415, 419, 425,
   431, 441, 442, 451, 452, 453, 471, 472, 475, 476; Classics 232, 233, 331, 334, 381,
   382; Philosophy 350.

Humanities Cluster
   Any British or American literature course. Any foreign language literature course
   including those using English translations. Any course from History, Philosophy,
   Medieval Studies or Religious Studies. Asian Languages 311, 312, 313, 314; Cin-
   ema Studies 281, 323, 325, 334, 420, 421, 433, 465; Classics 221, 222, 253, 254;
   Comparative Literature 201, 202, 203; Women’s Studies 210, 215, 320, 380, 383.

Arts Cluster
   Architecture 111; Art 191, 211, 212, 213, 215, 221, 222, 231, 241; Art History
   172, 173, 183, 411, 415, 419, 425, 431, 441, 442, 451, 452, 453, 471, 472, 475,
   476; Classics 232, 233, English 263, 363; Music 100, 110, 115, 120, 130, Music
   History 210, 220, 310, 330, 340, 341, 350, 380, 390; Philosophy 350, 353; Theater
   100, 220, 221, 245, 250, 260, 310, 311, 313.

Multicultural Studies Cluster
   Any sequence of foreign language courses. Any course from African and Afri-
   can-American Studies, Latin American Studies. American Studies, 310, 343, An-
   thropology 130, 313, 314, 315, 319, 373; Asian Studies 101, 102, 332, 333; Business
   Administration 311, Economics 321, 323; Geography 320; Political Science
   355, 365, 452, 454, 459, 463; Religious Studies 101, 102, 232, 333, 373, 374, 376,
   379, 381, 183; Women’s Studies 360.

Social Sciences Cluster
   Any course in African and African-American Studies, American Studies, An-
   thropology, Child and Family Studies, Latin American Studies, Political Science,
   Psychology, Rural Sociology, Sociology, Latin American Studies, Urban Studies or
   Women’s Studies. Asian Studies 101, 102, 332, 333; Business Administration 311,
   Counselor Education and Counseling Psychology 206, Economics 201, 321, 323,
   331, 361, 415, 424; Management 311.
CHEMICAL ENGINEERING

Add:

230  *Introduction to Chemical Engineering Thermodynamics*  (3) Introduction to the laws of thermodynamics, state functions, and their conceptual basis. Ideal systems, the gas law, Raoult’s law and deviations from ideal behavior (fugacity and activity). Introduction to the principles of statistical mechanics and quantum mechanics. Prereq: EF 102, Chem 130, Coreq: Math 142.

Effective date: Fall 1999


Effective date: Fall 1999

Drop:

207  *Honors Chemical Engineering Fundamentals*  (4)

Effective date: Fall 1999

Revise course corequisite, prerequisite, and description:

330  *Application of Chemical Engineering Thermodynamics*  (3) Basic concepts related to chemical engineering applications of thermodynamics; emphasis on flow processes, real gases and liquids, estimation of physical properties, phase equilibria of industrial mixtures, compressors, power cycles, and chemical reaction equilibria. Prereq: ChE 200, 230.

Effective date: Fall 1999


Effective date: Fall 1999

Revise course prerequisite:

310  *Chemical Engineering Laboratory*  (3) Prereq: 240

Effective date: Fall 1999
Revise course corequisite and prerequisite:

410 Chemical Engineering Laboratory II (3) Prereq: 310, 450

Effective date: Fall 1999

On page 119 of the 1998-99 Undergraduate Catalog, replace paragraph 2 of the “Bachelor of Science Program” section to read:

The curriculum provides a central core of required courses with flexibility in the upper division years to permit emphasis on preparation for graduate school or professional employment. A grade of C or better in all required Chemical Engineering courses is required for graduation.

Effective date: Fall 1999

On page 119 of the 1998-99 Undergraduate Catalog, revise the Chemical Engineering catalog description by replacing the entire description of the Honors program with the following:

**Honors Program**

The honors program encourages highly motivated students to experience a more rigorous preparation in chemical engineering. Admission is selective. Application to the honors program is made when the student applies for upper division status. Honors requirements are: credit for 3 of the 4 honors seminars (ChE 307, 308, 407 and 408), ChE 447, one of ChE 467, 477, 488 or 498 as a technical elective and Chem 483 as a chem option. Students interested in the honors program should consult the department’s honors coordinator.

Effective date: Fall 1999

On page 119 of the 1998-99 Undergraduate Catalog, revise the Chemical Engineering catalog description by replacing the entire description of the progression to Upper-Division section with the following:

**Progression to Upper Division**

Progression of chemical engineering students to departmental upper division courses is competitive and is based on capacity. Factors considered include overall grade point average, performance in selected lower division courses and evidence of satisfactory and orderly progress through the prescribed curriculum.

**Upper-Division Status**: A lower-division student may apply for progression to Upper-Division Status after completing ChE 200, 230, and 240 with a grade of C or better in each course and an overall GPA of 2.5 or better.
**Provisional Status:** Students who have completed ChE 200, 230, and 240 with an overall GPA of at least 2.1 may apply for provisional status. The granting of Provisional Upper-Division Status is based on the availability of space in the departmental programs after Upper-Division Status students have been accommodated. Provisional students are required to demonstrate the ability to perform satisfactorily in upper division courses by completing a total of seven departmental courses with a grade of C or better in each course (including the three required for Upper-Division Status). Permission to continue with upper-division classes depends on this minimum level of performance.

Any student with an overall GPA below 2.1 will not be admitted to upper division Chemical Engineering courses. Students who have not been admitted to Upper-Division or Provisional Status will be dropped from upper-division departmental class rolls.

Transfer students at the upper-division level are admitted on a Provisional Status basis only.

Effective date: Fall 1999

On page 124 of the *1998-99 Undergraduate Catalog*, revise the Chemical Engineering curriculum as follows:

**Sophomore**

Chemical Engineering 200, 230, 240, 330 ......................14  
Chemistry 310-319 ............................................................4  
Materials Science & Engineering 201 ...............................3  
Mathematics 200, 231, 241................................................8  
General Education electives ..............................................6

**Junior**

Chemical Engineering 301,310, 340, 360, 380 ...............14  
Physics 231 ........................................................................3  
Chemistry Option ..............................................................3  
Chemistry 350 ...................................................................3  
Chemistry 320, 360, or 483 ...............................................3  
General Education electives ..............................................6

**Senior**

Chemical Engineering 401, 410, 445 or 447, 450,  
480, 490 .......................................................................17  
Technical elective ..............................................................9  
General Education electives ..............................................6

Total: 133 hours

Effective date: Fall 1999
CIVIL & ENVIRONMENTAL ENGINEERING

Drop:

494 Urban Drainage Engineering (3)

Effective date: Fall 1999

Revise Prerequisite:

390 Hydraulics (4) Prereq: 205 or Biosystems Engineering 243; Engineering Fundamentals 102; Nuclear Engineering 203

Effective date: Fall 1999

401 Review of Engineering Fundamentals (1) Prereq: Must be taken during the last 15 hours of the curriculum.

Effective date: Fall 1999

Revise Course Title and Course Description:

421 Portland Cement Concrete Mix Design and Analysis (3) Aggregate properties and tests, tests of portland cement and concrete, mix design methods, admixtures, and nondestructive testing.

Effective date: Fall 1999

Revise Course Number and Course Description:

462 Analysis of Framed Structures (3) Vertical and lateral force resisting systems; gravity loads due to dead, live and snow loads; lateral loads due to earthquake and wind; use of computer in structural analysis; building modeling and analysis. (Previously 461).

Effective date: Fall 1999

On page 124 of the 1998-99 Undergraduate Catalog, revise the Civil Engineering showcase curriculum as follows:

Sophomore
Mathematics 200, 231, 241 ................................................8
Physics 231 ........................................................................3
Statistics 251 ........................................................................3
Nuclear Engineering 203 ...................................................3
Civil Engineering 205, 210, 261 ........................................9
1General Education electives ............................................. 6
Junior
Civil Engineering 321, 351, 361, 390 ......................... 13
Civil Engineering 305, 330, 352, 380, 395 .................. 14
1 General Education electives ............................... 6

Senior
Civil Engineering 435, 442, 471, 480 ..................... 12
Civil Engineering 400, 401, 440 ............................. 7
Civil Engineering electives ................................. 3
Technical electives ........................................... 6
1 General Education electives ............................... 6

Total: 133 hours

1 See College list of approved courses. All electives must be pre-approved by the advisor and department head.

Effective date: Fall 1999

Electrical Engineering

Change departmental name from Electrical Engineering to Electrical and Computer Engineering.

Add a Bachelor of Science in Computer Engineering degree program.

Add Computer Engineering showcase curriculum as follows:

Computer Engineering

<table>
<thead>
<tr>
<th>Hours Credit</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sophomore</td>
<td></td>
</tr>
<tr>
<td>Math 231, 251</td>
<td>6</td>
</tr>
<tr>
<td>Physics 231</td>
<td>3</td>
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<tr>
<td>Computer Science 102</td>
<td>4</td>
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<tr>
<td>Electrical Engineering 201</td>
<td>3</td>
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<tr>
<td>Electrical Engineering 202, 251</td>
<td>7</td>
</tr>
<tr>
<td>Computer Science 140</td>
<td>4</td>
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<td>Math 241</td>
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<td>General Education elective</td>
<td>3</td>
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<tr>
<td>Junior</td>
<td></td>
</tr>
<tr>
<td>Electrical Engineering 310, 311, 331</td>
<td>9</td>
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<tr>
<td>Computer Science 302</td>
<td>3</td>
</tr>
<tr>
<td>Math 300</td>
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</tr>
<tr>
<td>1 EE Junior Electives</td>
<td>6</td>
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<tr>
<td>EE 351</td>
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<tr>
<td>Computer Science 360</td>
<td>3</td>
</tr>
<tr>
<td>General Education elective</td>
<td>3</td>
</tr>
<tr>
<td>Senior</td>
<td></td>
</tr>
<tr>
<td>Electrical Engineering 451</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science 370</td>
<td>3</td>
</tr>
</tbody>
</table>
General Education electives .................................12
2 Senior elective ......................................................9
Electrical Engineering 452 ..........................................4

Total: 129 hours

1 The two EE junior electives are to be chosen from amongst EE 312, EE 321, EE 332, EE 341, EE 342.
2 Senior electives must be selected from amongst EE 411, EE 412, EE 421, EE 422, EE 431, EE 432, EE 441, EE 442, EE 443, EE 446, EE 465, EE 466, EE 471, EE 472, EE 481, EE 482, EE 494, CS 420, CS 430, CS 460, CS 470, CS 494, IE 405, and Engl 360.
If a student takes one or more EE senior electives that are 4-5 semester hours, then the total hours taken would increase to over 129. The extra hours beyond the degree requirement may not be used to reduce General Education elective hours.

Effective date: upon approval by the appropriate agencies
Target effective date: Fall 2000

On page 124 of the 1998-99 Undergraduate Catalog, revise the Electrical Engineering showcase curriculum as follows:

**Sophomore**
Electrical Engineering 201, 205 .................................6
Mathematics 231 ....................................................3
Materials Science and Engineering 201 .................3
Physics 231 ..........................................................3
Electrical Engineering, 202, 251 .............................7
1 General Education elective .................................3
Mathematics 241 ....................................................4
Physics 232 ..........................................................4

**Junior**
Electrical Engineering 310, 311, 331, 341, 351 .......15
1 General Education elective .................................3
Electrical Engineering 312, 321, 332, 342, 395 .......13
1 General Education elective .................................3

**Senior**
Electrical Engineering 400 ........................................5
Electrical Engineering electives ...........................13
1 General Education electives ...........................13
Mechanical Engineering 331 .................................3
Nuclear Engineering 342, Engineering Science 231, or
Materials Science & Engineering 310 ...............3

Total: 134 hours
Students must meet the design, depth, and breadth requirements of the department their selection of senior courses. The design requirement is met by taking EE 400, Senior Design. The depth requirement is met by taking a two course sequence in one of the core areas of systems (EE 411, 412), power (EE 421, 422), electronics (EE 431, 432), communications (EE 441, 442), and computers (EE 451, 452). The breadth requirement is met by taking courses in other core areas, or courses in computer vision, fusion, plasma engineering, power electronics, and emerging technologies. Electives are approved by the student’s faculty advisor.

1 At least one of the following courses must be taken as a General Education elective: Philosophy 342 Business Ethics, Philosophy 344 Professional Responsibility, Philosophy 345 Medical Ethics, or Philosophy 346 Environmental Ethics.

Effective date: Fall 1999

Revise prerequisite and corequisite:

201  **Circuits I (3)** Prereq: All coursework in freshman engineering curriculum. Coreq: Math 231; 205 or both CS 102 and Mathematics 251.

    Effective date: Fall 1999

202  Circuits II (4) Prereq: 201 and Mathematics 231.

    Effective date: Fall 1999

251  Small Computer Systems (3) Prereq: 201; 205 or both CS 102 and Mathematics 251.

    Effective date: Fall 1999

310  Frequency-Domain Analysis of **Signals and Noise** (3) Prereq: 202; Math 241; 205 or both CS 102 and Mathematics 251.

    Effective date: Fall 1999

400  Senior Design (5) Prereq: 312, 321, 332, 342, 351.

    Effective date: Fall 1999
Revise course description and prerequisite:

311  *Transient Analysis* (3) Transient response analysis of linear time-invariant continuous-time and discrete-time dynamic systems by various methods including Laplace transform, z-transform, and state space techniques; properties of sampling; input-output characteristics, frequency response analysis. Prereq: 202; 205 or both CS 102 and Math 251.

   Effective date: Fall 1999

312  *Linear System Analysis* (3) Introduction to feedback theory of continuous systems using the tools of block diagrams, signal flow graphs, stability analysis, root locus, frequency response (Bode, Nyquist, Nichols), state variables, steady state error, system performance characteristics of 1st, 2nd and higher order systems. Introduction to system simulation using MATLAB and Simulink. Includes Level 1 design projects which require laboratory work. Prereq: 310, 311.

   Effective date: Fall 1999

331  *Electronic Devices* (3) Basic semiconductor physics, theory of p-n junctions; diodes, field effect transistors, and bipolar transistors; modeling of diode and transistor devices; analysis and design of diode switching and rectifier circuits; basic transistor switching circuits and single stage amplifiers; electronic simulation using SPICE. Includes Level 1 design projects which require laboratory work. Prereq: 202. Coreq: 251.

   Effective date: Fall 1999

Revise course description:

351  *Introduction to Logic Design of Digital Systems* (3) Boolean algebra and logic design of combinational and sequential circuits. Gate and flip-flop characteristics and TTL technology. Design of circuits using SSI, MSI, and FPGA components with VHDL. Includes Level 1 design projects which require laboratory work. Prereq: 251. Coreq: 331.

   Effective date: Fall 1999

443  *Antennas and Propagation* (3) Introduction to antenna theory including fundamental antenna concepts and parameters (directivity, gain, patterns, etc.) and signal propagation. Theory and design of linear and loop antennas, arrays, and other simple antennas. Includes Level 1 design projects. Prereq: 311, 341, 342.

   Effective date: Fall 1999
Drop:

- 445  Electro-Acoustics (3)  
  Effective date: Fall 1999

- 490  Special Topics (3)  
  Effective date: Fall 1999

ENGINEERING PHYSICS

On page 124 of the 1998-99 Undergraduate Catalog, revise the Engineering Physics showcase curriculum as follows:

**Freshman**
- English 101,102 .................................................................6
- Mathematics 141,142.........................................................8
- Engineering Fundamentals 101,102 ...............................12
  \(^1\)Physics 137,138 .........................................................10

**Sophomore**
- Mathematics 231,241 .........................................................7
- Computer Science 102 .......................................................4
- Chemistry 120,130 ............................................................8
  \(^1\)Physics 240,321 .............................................................6
- General Education electives ..............................................9

**Junior**
- Physics 311,312 .................................................................6
- Physics 361,461 .................................................................6
- Physics 421 ........................................................................4
- \(^2\)Engineering/Technical Electives .................................9
- General Education electives ..............................................9

**Senior**
- Physics 411,412 .................................................................6
- Physics 431,432 .................................................................6
- \(^2\)Engineering/Technical Electives .................................12
- Electives .............................................................................6

Total: 134 hours

\(^1\)Transfer students from other engineering departments may substitute Engineering Fundamentals 102 for Physics 137, Physics 231 for Physics 138, and Physics 232 for Physics 240.

\(^2\)A total of 12 hours of engineering electives plus 9 hours of technical electives are required. Engineering electives should form a coherent group of courses taken in the College of Engineering. Technical electives may be taken in physics, engineering, math, other physical sciences, or astronomy.

Effective date: Fall 1999
On page 124 of the *1998-99 Undergraduate Catalog*, revise the Industrial Engineering showcase curriculum as follows:

**Sophomore**
- 2 General Education elective ..............................................3
- Mathematics 200, 231, 241 ................................................8
- Physics 231 ........................................................................3
- Engineering Science 231 ...................................................3
- Industrial Engineering 202 ................................................3
- Accounting 201 .................................................................3
- Statistics 251 ......................................................................3
- Economics 201 ....................................................................4
- Materials Science & Engr. 201 ...........................................3

**Junior**
- Electrical Engineering 301 ................................................3
- Industrial Engineering 300, 301, 302, 304, 306, 330 ......18
- Industrial Engineering 401, 405 ........................................6
- Nuclear Engineering 203 ...................................................3
- Speech Communication 210 ..............................................3

**Senior**
- Industrial Engineering 402, 403, 404 ................................8
- Industrial Engineering 421, 422, 440 ..............................9
- Nuclear Engineering 342 ...................................................3
- 1 Technical Elective .............................................................3
- English 295 ........................................................................3
- 2 General Education electives .........................................6

**Total:** 132 hours

1 The technical elective must be taken from within the Industrial Engineering Department, or be approved by the students faculty advisor and department head.
2 Refer to College list of approved courses.

Effective date: Fall 1999

**Drop:**

201  *Introduction to Industrial Engineering* (1)

Effective date: Fall 1999

**Add:**

310  *Operations Research in Industrial Engineering II* (3) Network models including PERT-CPM, introduction to nonlinear programming, dynamic programming, stochastic pro-
cesses and queueing theory. Basic decision analysis techniques and their applications in engineering practice. Prereq: IE 300, 301, Statistics 251

Effective date: Fall 1999

Revise course description and credit:

404  *Industrial Engineering Applications* (2) To enhance and integrate the industrial engineering educational experience in preparing senior industrial engineering students for their transition to professional practice. Prereq: Term of expected graduation or consent of instructor

Effective date: Fall 1999

Revise course title and description:

301  *Operations Research in Industrial Engineering I* (3) Integrated system modeling concepts; linear mathematical programming models including the original simplex procedure, transportation and assignment problems, revised simplex procedure, dual simplex procedure, parametric linear programming (sensitivity analysis), and integer linear programming. Prereq. Mathematics 231 and 200.

Effective date: Fall 1999

Revise prerequisites:

306  *Simulation* (3) Prereq: IE 202, 302 and Statistics 251, or consent of instructor

Effective date: Fall 1999

330  Manufacturing Materials/Processes (3) Prereq: Chemistry 130, Materials Science and Engineering 201

Effective date: Fall 1999

403  *Production Facilities Design and Material Handling* (3) Prereq: IE 202, 306, 401

Effective date: Fall 1999

**MATERIALS SCIENCE & ENGINEERING**

Revise course description, credit hours (MSE 290) and add (MSE 291):

290-291  *Materials Seminar* (0,1) Professionalism, ethical considerations, safety, patents, product liability, field trips, industrial speakers, materials science in a global/societal context,
teamwork, contemporary issues, life-long learning. May be repeated. Satisfactory/no credit grading only. (Either 290 or 291 must be taken each semester by all MSE majors starting with the second year of residence.)

Effective date: Fall 1999

On page 125 of the 1998-99 Undergraduate Catalog, revise the Materials Science and Engineering showcase curriculum as follows:

**Sophomore**
Materials Science and Engineering 201, 290, 291 ............4
Physics 231, 232 .................................................................7
Mathematics 200, 231, 241 .................................................8
Chemical Engineering 200, 240 .................................8
\(^1\)General Education electives .................................6

**Junior**
Materials Science and Engineering 290, 291, 300,
   301, 302, 304, 320, 340, 360 .................................19
Chemistry 473 .................................................................3
Electrical Engineering 301 ...............................3
Engineering Science 321 .......................................3
\(^1\)General Education electives .................................6

**Senior**
Materials Science and Engineering 290, 291, 380,
   402, 405, 410, 421, 489 ........................................20
2Materials Science and Engineering Elective ............3
Technical Elective ..................................................3
\(^1\)General Education electives .................................6

............................................................................... Total: 133 hours

\(^1\)General Education courses must include Economics 201
and one course from the Effective Communications Cluster in addition to the requirements described on p. XXX.

\(^2\)MSE electives: 422, 429, 443, 444, 470, 472, 474, 475, 494, 495, 496

Effective date: Fall 1999

**MECHANICAL & AEROSPACE ENGINEERING & ENGINEERING SCIENCE**

**Aerospace**

On pages 123 and 124 of the 1998-99 Undergraduate Catalog, revise the Aerospace Engineering showcase curriculum as follows:
### Sophomore
Mathematics 231, 241 .................................................. 7  
Mathematics 200 ............................................................. 1  
Physics 231, 232 ............................................................ 7  
Engineering Science 231, 321 ........................................ 6  
Materials Science and Engineering 201 ....................... 3  
Mechanical Engineering 331 ........................................ 3  
Economics 201 ............................................................. 4  
¹General Education elective ........................................... 3

### Junior
Mechanical Engineering 332, 363, 391 ......................... 9  
Aerospace Engineering 345, 351, 363, 370 .................. 12  
Electrical Engineering 301, 302 .................................. 6  
Engineering Science 341 .......................................... 3  
¹General Education electives ...................................... 6

### Senior
Mechanical Engineering 344, 451 ................................ 6  
Aerospace Engineering 426, 429 ................................. 6  
Aerospace Engineering 422, 424, 425 .......................... 9  
Aerospace Engineering 431, 449 ................................. 4  
¹General Education electives ...................................... 5

**Total: 134 hours**

¹General Education electives: minimum of 14 hours required.  
(See College of Engineering General Requirements)

Effective date: Fall 1999

### Engineering Science
On pages 124 of the *1998-99 Undergraduate Catalog*, revise the Engineering Science showcase curriculum as follows:

#### Sophomore
Mathematics 241, 231, 200 .......................................... 8  
Physics 231, 232 ....................................................... 7  
Materials Science and Engineering 201 ....................... 3  
Engineering Science 231, 321 ................................... 6  
Basic Engineering 201 ............................................. 2  
¹General Education electives ...................................... 6

#### Junior
Electrical Engineering 301 ......................................... 3  
Engineering Science 301, 341 ................................... 4  
Engineering Science 322 or 422 ............................... 3
Mechanical Engineering 331 .............................................3
Industrial Engineering 405 ................................................3
1Mathematics or Statistics elective ....................................3
1Technical electives ...........................................................9
1General Education electives .............................................6

Senior
Mechanical Engineering 344, 363 .....................................6
Engineering Science 452, 453, 454, 465 .........................12
1Technical electives ...........................................................9
1General Education electives .............................................6

Total: 133 hours

1 All electives must be approved by the student’s faculty advisor
and the department head. Technical electives may include courses
in mathematics, statistics, computer science, and natural science, as
well as courses in engineering.

Effective date: Fall 1999

On pages 124 of the 1998-99 Undergraduate Catalog, revise the Engineering Science: Biomedical
Engineering Concentration showcase curriculum as follows:

Sophomore
Mathematics 241, 231, 200................................................8
Physics 231, 232 ................................................................7
Engineering Science 231, 271, 321 ...................................9
Basic Engineering 201 .......................................................2
1Technical electives ...........................................................8

Junior
Electrical Engineering 301 ................................................3
Engineering Science 322 or 442 .....................................3
Engineering Science 301, 341 .........................................4
Materials Science and Engineering 201 .........................3
Mechanical Engineering 331 ............................................3
Industrial Engineering 405 .............................................3
1Technical electives ...........................................................6
1General Education electives .............................................9

Senior
Engineering Science 452, 453, 454, 465 .........................12
Mechanical Engineering 344, 363 .....................................6
1Mathematics or Statistics elective ....................................3
1Technical elective .............................................................3
1General Education electives .............................................9

Total: 135 hours

1 All electives must be approved by the student’s faculty advisor
and the department head. Technical electives (including biomi-
cal engineering courses) are chosen to form a biomedical engineering emphasis. Pre-med, pre-vet, and pre-dentistry programs must include biology/zooloogy and organic chemistry courses as part of the technical electives.

Effective date: Fall 1999

Mechanical Engineering

On pages 125 of the 1998-99 Undergraduate Catalog, revise the Mechanical Engineering showcase curriculum as follows:

**Sophomore**
Mathematics 241, 231, 200 ................................................ 8
Physics 231, 232 ............................................................. 7
Engineering Science 231, 321 ......................................... 6
Materials Science and Engineering 201 .......................... 3
Mechanical Engineering 331 ........................................... 3
Economics 201 ............................................................. 4
1 General Education electives ........................................... 2

**Junior**
Mechanical Engineering 391, 344, 363, 366, 345, 332, 365 ................................................................. 21
Electrical Engineering 301, 302 ..................................... 6
Engineering Science 341 ................................................. 3
1 General Education electives ........................................... 6

**Senior**
Mechanical Engineering 451, 466, 475, 449, 431 ........... 13
Mechanical Engineering 455 and 469 or 456 and 479 ....... 6
Technical elective .......................................................... 3
Technical elective (to be selected from ES 452, AE 351, IE 300) ...................................................... 3
1 General Education electives ........................................... 6

Total: 134 hours

1 General Education electives: (See College of Engineering General Requirements).

Effective date: Fall 1999

**Nuclear Engineering**

Drop:

201-2 Seminar (1,1)

Effective date: Fall 1999
306  Designing for Energy Transport (3)

   Effective date: Fall 1999

405  Reactor Dynamics, Control, and Safety (3)

   Effective date: Fall 1999

Add:

200  Introduction to Nuclear and Radiological Engineering (1)  Topics related to nuclear and radiological engineering.  Satisfactory/No Credit.

   Effective date: Fall 1999

400  Senior Seminar (1)  Current topics related to nuclear and radiological engineering including ethics, contemporary issues, and commitment to life-long learning.  Prereq: Senior standing.  Satisfactory/No credit.

   Effective date: Fall 1999

360  Reactor Systems and Safety (3)  Safety and operating limits of nuclear steam supply system components; NRC regulations; accident analysis and mitigation.  Prereq: 342.

   Effective date: Fall 1999

495  Special Topics in Radiological Engineering (3)  Problems related to recent developments and practice.  Prereq: Senior standing or consent of instructor.  May be repeated.

   Effective date: Fall 1999

Revise Course Title:

301  Fundamentals of Nuclear and Radiological Engineering (3)

   Effective date: Fall 1999

On page 125 of the 1998-99 Undergraduate Catalog, replace the showcase curriculum for Nuclear Engineering, Fission Systems Engineering Concentration and drop the designation of a concentration for this degree program.  This change will also mean that “Fission Reactor Engineering” is dropped from the Table on page 52 of the 1998-99 Undergraduate Catalog where concentrations within the Nuclear Engineering major are shown. The new showcase curriculum for Nuclear Engineering is as follows:
### Nuclear Engineering

#### Sophomore

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
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<tbody>
<tr>
<td>Math 200, 231, 241</td>
<td>8</td>
</tr>
<tr>
<td>Physics 231, 232</td>
<td>7</td>
</tr>
<tr>
<td>Nuclear Engineering 200, 203</td>
<td>4</td>
</tr>
<tr>
<td>Electrical Engineering 301</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science 102</td>
<td>4</td>
</tr>
</tbody>
</table>

1General Education electives ........................... 9

#### Junior

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics 341</td>
<td>3</td>
</tr>
<tr>
<td>Nuclear Engineering 301, 304, 342, 351, 360, 470</td>
<td>18</td>
</tr>
<tr>
<td>Materials Science and Engineering 201</td>
<td>3</td>
</tr>
</tbody>
</table>

1General Education electives ........................... 6

#### Senior

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial Engineering 405</td>
<td>3</td>
</tr>
<tr>
<td>Nuclear Engineering 400, 403, 404, 406, 431, 472</td>
<td>17</td>
</tr>
</tbody>
</table>

2Technical Electives ................................................ 6

1General Education electives ........................... 3

**Total: 128 hours**

1General Education electives must include English 360 and at least one of the following: Philosophy 342, 344, 345, or 346.
2Technical electives are selected from upper division mathematics and engineering courses and must be pre-approved by the department.

Effective date: Fall 1999

On page 125 of the 1998-99 Undergraduate Catalog, replace the showcase curriculum for the Nuclear Engineering, Radiological Engineering Concentration as follows:

### Nuclear Engineering: Radiological Engineering Concentration

#### Sophomore

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 200, 231, 241</td>
<td>8</td>
</tr>
<tr>
<td>Physics 231, 232</td>
<td>7</td>
</tr>
<tr>
<td>Nuclear Engineering 200, 203</td>
<td>4</td>
</tr>
<tr>
<td>Electrical Engineering 301</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science 102</td>
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</tr>
</tbody>
</table>

1General Education electives ........................... 9

#### Junior

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics 341</td>
<td>3</td>
</tr>
<tr>
<td>Nuclear Engineering 301, 304, 342, 351, 470</td>
<td>15</td>
</tr>
<tr>
<td>Biology 140</td>
<td>4</td>
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</tbody>
</table>
Biochemistry and Cellular and Molecular Biology (BCMB) 230 ..........................5
1 General Education electives ..................................................6

Senior
Industrial Engineering 405 ....................................................3
Nuclear Engineering 400, 403, 404, 406, 431, 472 ............17
Statistics 251, BCMB 310, or Chemistry 350 ......................3
2 Technical elective .................................................................3
1 General Education electives ..................................................3

Total: 131 hours

1 General Education electives must include English 360 and at least one of the following: Philosophy 342, 344, 345, or 346.
2 Technical electives are selected from upper division mathematics, chemistry, and engineering courses and must be pre-approved by the department. Pre-Med, pre-vet and pre-dentistry students must take Chemistry 360 and also Chemistry 369.

Effective date: Fall 1999
To: Members of the Undergraduate Council

From: James Moran, Dean, College of Human Ecology

Date: January 7, 1999

The following changes have been approved by the faculty of the respective program areas, departments and divisional curriculum committees within the College of Human Ecology. I request that they be put on the agenda for discussion at the January 21, 1999 meeting of the undergraduate committee. A brief overview of the major changes to be considered:

1. Joint Teacher Licensure Programs in Early Childhood Education and Early Childhood Special Education.
2. Revision of the Family Studies major.
3. Revisions to Health and Safety Sciences PH 410
4. Revisions to the Hotel and Restaurant Administration major.
5. Revisions to the Recreation & Tourism Management major
7. Revision of the Mathematics requirement for the Training and Development concentration in HRD.
8. Revision to the B. S. Nutrition requirements.

Please note: It is requested that all changes be effective as of Fall term 1999.
Revisions to prerequisites for HE 410:

On page 184 revise prerequisites for HE 410 to: HRD 210; CFS 210 or CFS 220 or RCS 341; 6 upper division hours in major.

Department of Child and Family Studies

Revise paragraph entitled Early Childhood Education Teacher Licensure on page 128.

Students interested in meeting the requirements for licensure in Early Childhood Education (Pre-K - grade 4) or a dual licensure in Early Childhood and Early Childhood Special Education (Pre-K - grade 1) in the State of Tennessee can major in Child Development with the appropriate modifications outlined below. Students are encouraged to determine their interest in licensure very early in their college careers and to seek appropriate advising.

Add 2 additional curriculum showcases to reflect licensure options in the Child Development Major on page 128.

Department of Child and Family Studies

ADD

Early Childhood Education
Pre-K - Grade 4 Teacher Licensure - Five-Year Program

Freshman

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CFS 110</td>
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<tr>
<td>CFS 211</td>
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<tr>
<td>CFS 213</td>
<td>3</td>
</tr>
<tr>
<td>English</td>
<td>6</td>
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<tr>
<td>3 History Electives</td>
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<td>HRD 210</td>
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<td>1 Humanities Electives</td>
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<td>Math 110 or 201</td>
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<tr>
<td>Math 115 or 202</td>
<td>3</td>
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Sophomore

<table>
<thead>
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<th>Course</th>
<th>Credit Hours</th>
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<td>CFS 220</td>
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<td>Electives</td>
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<td>History Electives</td>
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<td>Natural Science Electives</td>
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**Junior**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CFS 352</td>
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<td>Electives</td>
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<td>Foreign Language Electives</td>
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<tr>
<td>Health 310</td>
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<tr>
<td>Human Ecology 410</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Electives</td>
<td>3</td>
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<tr>
<td>Information Sciences 330</td>
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</table>

**Senior**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CFS 471</td>
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</tr>
<tr>
<td>Education 400</td>
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</tr>
<tr>
<td>Education 401</td>
<td>3</td>
</tr>
<tr>
<td>EDSMRT 486</td>
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<tr>
<td>Electives</td>
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</tr>
<tr>
<td>I ECE 422</td>
<td>6</td>
</tr>
<tr>
<td>I ECE 445</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours 125

**NOTE: Students may test out of HRD 210; an elective should then be substituted.**

1. Courses are to be chosen from two of the following categories: Literature; Speech; Art or Music Appreciation; Philosophy or Religious Studies.

2. One of the following sequences is to be chosen: Astronomy 151-152; Biology 101-102; Botany 110-120; Chemistry 100-110; Chemistry 120-130; Geography 131-132; Geology 101-102; Physics 121-122

3. One semester of American History and one semester of another course with a history prefix.

4. Select at least 3 hours from either Political Science, Economics, Psychology, Sociology, Geography or Anthropology. Additional courses can be taken from applied fields such as Nursing 202, 213; Social work 200, 250; Human Services 220 and Health.

5. At least 48 hours in 300 - 400 level courses are required.
### ADD:

**Dual Licensure in Early Childhood Education (Pre-K - Grade 4) and Early Childhood Special Education (Pre-K through Grade 1) — Five-Year Program**

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CFS 110</td>
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<tr>
<td>CFS 211</td>
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<td>Math 110 or 201</td>
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</tr>
<tr>
<td>Math 115 or 202</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>Sophomore</th>
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<tbody>
<tr>
<td>CFS 220</td>
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<tr>
<td>CFS 350</td>
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<tr>
<td>CFS 351</td>
<td>4</td>
</tr>
<tr>
<td>CFS 352</td>
<td>3</td>
</tr>
<tr>
<td>5 Electives</td>
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<tr>
<td>3 History Electives</td>
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<tr>
<td>2 Natural Science Electives</td>
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</tr>
<tr>
<td>4 Social Science Electives</td>
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</table>

<table>
<thead>
<tr>
<th>Junior</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFS 471</td>
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<td>5 Electives</td>
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<tr>
<td>Foreign Language Electives</td>
<td>6</td>
</tr>
<tr>
<td>Health 310</td>
<td>3</td>
</tr>
<tr>
<td>Human Ecology 410</td>
<td>3</td>
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<tr>
<td>1 Humanities Electives</td>
<td>3</td>
</tr>
<tr>
<td>Information Sciences 330</td>
<td>3</td>
</tr>
<tr>
<td>4 Social Science Electives</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Senior</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education 400</td>
<td>2</td>
</tr>
<tr>
<td>Education 401</td>
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<tr>
<td>EDSMRT 486</td>
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<td>5 Electives</td>
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<td>I ECE 422</td>
<td>6</td>
</tr>
<tr>
<td>I ECE 445</td>
<td>3</td>
</tr>
<tr>
<td>I ECE 471</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total Hours 125**
NOTE: Students may test out of HRD 210; an elective should then be substituted.

1. Courses are to be chosen from two of the following categories: Literature; Speech or Oral Interpretation; Art or Music Appreciation; Philosophy or Religious Studies.

2. One of the following sequences is to be chosen: Astronomy 151-152; Biology 101-102; Botany 110-120; Chemistry 100-110; Chemistry 120-130; Geography 131-132; Geology 101-102; Physics 121-122

3. One semester of American History and one semester of another course with a history prefix.

4. Select at least 3 hours from either Political Science, Economics, Psychology, Sociology, Geography or Anthropology. Additional courses can be taken from applied fields such as Nursing 202, 314; Social Work 200, 250; Human Services 220; and Health.

5. At least 48 hours in 300-400 level courses are required.

**Child and Family Studies Course Revisions:**

Revised course title and description from:

**CFS 471 - Practicum in Child Development Specializations (3-6)** Supervised experiences working with children and families in community settings related to each student’s child development specialization: child life, early childhood education, early childhood administration, early childhood special education, school-aged child card, and research. Prereq: Admission to the Child Development major or the Early Childhood Education licensure program and consent of the instructor. May be repeated. Maximum 6 hours. Satisfactory/No Credit only.

To:

**CFS 471 - Advanced Practicum in Child Development (3-12)** Supervised experiences working with children and families in early childhood settings. Prereq: Admission to the Child Development major or the Early Childhood Education licensure program and consent of the instructor. May be repeated. Maximum 12 hours. Satisfactory/No Credit only.

**Professional (5th) Year Programs**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td><strong>Human Ecology (Current Program)</strong></td>
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</tr>
<tr>
<td>Internship</td>
<td>Internship</td>
</tr>
<tr>
<td>4 hrs.</td>
<td>8 hrs.</td>
</tr>
<tr>
<td>Research Methods</td>
<td>Clinical Studies</td>
</tr>
<tr>
<td>3 hrs.</td>
<td>4 hrs.</td>
</tr>
<tr>
<td>Computers in ECE</td>
<td></td>
</tr>
<tr>
<td>3 hrs.</td>
<td></td>
</tr>
<tr>
<td>Seminar</td>
<td></td>
</tr>
<tr>
<td>2 hrs.</td>
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</tr>
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<td><strong>Total</strong></td>
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</tr>
<tr>
<td>12 hrs.</td>
<td>12 hrs.</td>
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</table>
**Education (Current Program)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internship</td>
<td>4</td>
<td>Internship</td>
<td>8</td>
</tr>
<tr>
<td>Specialty Methods</td>
<td>6</td>
<td>Clinical Studies</td>
<td>4</td>
</tr>
<tr>
<td>Analysis Tch. Res.</td>
<td>2</td>
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</tr>
<tr>
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</table>

**Combined (Proposed Program)**

<table>
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<th>Hours</th>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
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<td>2</td>
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<tr>
<td>ED Seminar</td>
<td>2</td>
<td>ED Clinical Studies</td>
<td>4</td>
</tr>
<tr>
<td>CFS Specialty Methods</td>
<td>3</td>
<td>HE Internship</td>
<td>6</td>
</tr>
<tr>
<td>CFS Action Research</td>
<td>3</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

**Department of Child And Family Studies**

Revise the paragraph FAMILY STUDIES MAJOR on page 128 of the Undergraduate catalog to:

The Family Studies major is designed for students whose educational and career goals are focused on studying and working with individuals and families within educational programs and community services. The major is designed to accommodate special interests or strengths of students and allows for flexibility and individualization. All students take a basic core with individualization taking place within the pods selected by the student. The student may design a program in consultation with an advisor, making selections from the recommended pods, channeling the course of study in a particular direction so that all students graduating with a Family Studies major will have depth in family knowledge, a broad perspective and means for application.

A pod is basically course work focusing on a concept that relates to the study of the family. Course work to support the concepts comes from many areas across the university. Pods are referred to as restricted electives within the curriculum description and will constitute a minimum of 36 credit hours for each student’s program. Choices for pods are: Adulthood and Aging, Business, Families and Youth at Risk, Family and Community Services, Family Studies Internship, Health and Wellness, Human Development, Instructional Programs, Life Management, Mass Media, Interactional and Conflict Resolution Skills, Multi-Cultural, Public Policy, Research, Teacher Education, Women and Families.

It is recommended that students who want to seek licensure to teach Vocational Home Economics in grades 5 - 12 major in Family Studies, plus a fifth-year professional internship. Prerequisite course work to enter this fifth-year is specified and is available in the Human Ecology Advising Center.
Revise the curriculum showcase for the Family Studies on page 128.

FROM:

Freshman Year
English 101, 102 ............................................ 6
Nutrition 100 .................................................. 3
Mathematics 110, 115 ........................................ 6
Psychology 110 ................................................ 3
¹ Humanities Electives ...................................... 6
Electives ....................................................... 4-6

Sophomore
² Natural or Physical Sciences ............................. 6-8
Child and Family Studies 205,210,220,240 10
History Electives ............................................. 6
³ Restricted Electives ......................................... 6
Electives ....................................................... 4

Junior
Child and Family Studies 345, 360 ...................... 6
³ Restricted Electives ......................................... 15
Electives ....................................................... 12

Senior
Child and Family Studies 420, 430 ...................... 6
Human Ecology 410 ......................................... 3
³ Restricted Electives ......................................... 15
Electives ....................................................... 6

Total Hours ⁴ 125

Department of Child and Family Studies

TO:

Freshman Year
⁷ Electives ....................................................... 4-6
English 101, 102 ............................................. 6
Mathematics 110, 115 ....................................... 6
¹ Humanities Electives ...................................... 6
² Social Science Electives .................................... 3

Sophomore
⁴ Child and Family Studies 205,210,220,24010
History Electives ............................................. 6
Human Resource Development 210 .................... 3
³ Natural or Physical Sciences ............................ 6-8
⁵ Restricted Electives ......................................... 6
Junior
6 Advanced Social Science Electives ........... 12
Child and Family Studies 345, 360 ............ 6
5 Restricted Electives ............................. 15

Senior
6 Advanced Social Science Electives ........... 12
Child and Family Studies 420, 430, 440 ...... 9
Human Ecology 410 ............................... 3
5 Restricted Electives ............................. 15

Total Hours 4 128 - 130

1 Courses are to be selected from at least two of the following categories: literature, art appreciation, music appreciation, philosophy, or religious studies.
2 Students must select one of the following sequences: Sociology 110-120 or Psychology 110-120
3 Students interested in Family and Consumer Sciences teacher licensure must take Chemistry 100 and Biochemistry and Cellular Molecular Biology 230. All others must select one of the following sequences: Astronomy 151-152, Biology 110-120, Botany 110-120, Chemistry 100-110, Chemistry 120-130, Geography 101-102, Geology 101-102, Physics 121-122.
4 CFS 210 requirement waived if the student selects the Human Development Pod; replace with 3 hours general electives.
5 36 hours must be chosen, in consultation with a faculty advisor, from the following list of courses meeting departmental requirements for restricted electives.
7 At least 48 hours in 300 - 400 level courses are required.

Restricted electives are grouped in pods and students must complete 4 pods of 9 hours each. If 18 hours are taken from one pod, it may count for 2 of the required pods. A course may be counted in one pod only. **Adulthood and Aging:** CFS 312, Health 406, Health 465, HRD 421, HRD 422, Univ Studies 321; Business: Acct 201, Acct 202, Bus Law 301, Mgt 301, Mgt 321, Mkt 301, Stats 201; **Families and Youth at Risk:** CFS 455, Health 406, Health 430, Health 435, Psychoeducational Studies 432, Psy 330, Soc 340, Soc 351, Social Work 200; **Family and Community Services:** CECP 410, CFS 352, CFS 405, Human Serv 220, Human Serv 330, Human Serv 380, Planning 446, Psychoeducational Studies 431, Social Work 200, Social Work 250, Sociology 110; **Family Studies Internship:** Requires a 2.5 GPA, completion of the Interactional and Conflict Resolution Pod, progression into family studies major, and application for/acceptance into internship placement; **Health and Wellness:** Health 330, Health 375, Health 400, Health 405, Health 425, Health 426, Health 430, Health 435, Nursing 202, Nursing 314, Psy 430, Pub Health 300, Pub Health 305, Soc 414, Speech 425, Univ Studies 311; **Human Development:** CFS 211, CFS 213, CFS 312, ECP 212, Psy 310, Psy 320, Psy 360, Psy 470; **Instructional Programs:** AG & Ext Ed. 411, CFS 320, Health 325, HRD 320, HRD 325, HRD 422, Psychoeducational Studies 210, Speech 440; **Interactional and Conflict Resolution Skills:** CFS 405, Human Ser 380, Psy 424, Speech/Soc 220, Speech 310, Speech 320, Speech 420; **Life Management:**
HRA 101, Nutrition 100, Nutrition 302, RCS 345, RCS 350, TS 220; **Mass Media and Writing:** Communications 100, Engl 360, Engl 455, Health 426, Journalism 200, Journalism 201, Journalism 310, Journalism 414, PR 270; **Multi-Cultural:** AF Am Studies 201, AF Am Studies 202, AF Am Studies 429, AF Am Studies 473, AF Am Studies 480, AF Am Studies 483, Anthropology 130, Anthropology 312, Anthropology 320, Soc 343; **Public Policy:** Journalism 201, Planning 446, Pol Sci 311, Pol Sci 312, Pol Sci 340, PR 270, Women’s Studies 340; **Research:** Anthropology 431, CFS 481, Soc 331, Stats 201, Stats 321; **Teacher Education:** Ed 400, Ed 401, HRD 201, HRD 320, HRD 325, HRD 330, HRD 452; **Women and Families:** AF Am Studies 483, CECP 410, Health 425, Hist 453, Religion 320, Soc 375, Women’s St 220, Women’s St 340, Women’s St 360, Women’s St 380, Women’s St 434;

**Department of Child and Family Studies**

**Family Studies Course Revisions:**

**ADD:**

**CFS 440 Family Life and Parent Education (3)** Emphasis on skills required to develop family life education programs implemented in community settings. Overview of current approaches to the process of parenting and parent education programs. Prereq: Family Studies majors only.

**Revise course title and description FROM:**

**CFS 320 Parent Education (3)** Factors in contemporary American families impacting on parent-child relations; review of programs for strengthening parenting skills. Prereq: 220 or consent of instructor.

**TO:**

**CFS 320 Parenting (3)** Factors in contemporary American families impacting on parent-child relations across the life cycle. Review of strategies for strengthening parenting skills. Prereq: 220 or consent of instructor.

**FROM:**

**CFS 405 Development of Interpersonal Skills (3)** Development of basic interpersonal skills needed to work with families and other professionals. Skills include active listening, self-disclosure, relationship building, and negotiation. Prereq: Progression into Family Studies Internship.

**TO:**

**CFS 405 Development and Teaching of Interpersonal Skills (3)** Development of basic interpersonal skills needed to work with families and other professionals. Skills include active listening, self-disclosure, relationship building, and negotiation. Process of teaching interpersonal skills and group facilitation in community settings. Prereq: Family Studies majors only.
Hotel & Restaurant Administration

In the Junior Year:

1. Drop HRA 315 - Hospitality Interiors (3)
2. Add Electives, 3 hours

Revise HRA Course Descriptions FROM:

HRA 324 - Tourism and Travel Administration (3) Economic and social forces influencing domestic and international tourism; services, functions of retail, wholesale travel agencies. Prereq: 120; progression into HRA program or consent of the instructor.

TO:

HRA 324 - Tourism and Travel Administration (3) Economic and social forces influencing domestic and international tourism; services, functions of retail, wholesale travel agencies. Prereq/Coreq: 320, 321, 322 or consent of the instructor.

From:

HRA 335 - Convention Management (3) Scope and segments of convention management including requirements meeting individual needs; methods and techniques for outstanding service. Prereq: 320, 321, 322 or consent of the instructor.

To:

HRA 335 - Convention Management (3) Scope and segments of convention management including requirements meeting individual needs; methods and techniques for outstanding service. Prereq/Coreq: 320, 321, 322 or consent of the instructor.

Recreation and Tourism Management

Revise curriculum showcase for Commercial Recreation and Tourism Management Concentration:

FROM:

Freshman
English .............................................................. 6
Math Electives ...................................................... 6
History electives ................................................. 6
<table>
<thead>
<tr>
<th>HRD 210</th>
<th>3</th>
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<tbody>
<tr>
<td>Humanities Electives</td>
<td>6</td>
</tr>
<tr>
<td>Recreation and Leisure Studies 110</td>
<td>4</td>
</tr>
</tbody>
</table>

**Sophomore**

| Advertising 250 or **Journalism 390** | 3 |
| Natural Science Electives | 6-8 |
| Speech 210 or 240 | 3 |
| Economics 201, 331, and 311 or 313 | 10 |
| Health 310 | 3 |
| Journalism 201 | 3 |
| **Sociology 120** | 3 |
| Recreation and Leisure Studies 290 | 3 |
| Recreation and Leisure Studies 320 | 3 |

**Junior**

| Hotel and Restaurant Administration 324 | 3 |
| **Marketing 301, HRA 423, HRA 425,** | |
| **HRA 426** | 6 |
| Economics 361 | 3 |
| Business Law | 3 |
| Human Ecology 410 and CFS 220 or RCS 341 | 6 |
| Recreation and Tourism Management 310, 415, 470 | 9 |
| Recreation and Tourism Management 390 | 2-3 |

**Senior**

| Economics 435 or 462 | 3 |
| Electives | 8 |
| Recreation and Tourism Management | |
| 410-430-440 | 9 |
| Recreation and Tourism Management 490 | 12 |

Total Hours 128

---

1. History Electives: Any course with a history prefix
2. Humanities Electives: art history/appreciation, foreign language at the intermediate level or above, philosophy, music appreciation/history, or religious studies.
3. A minimum of 48 upper division hours is required for graduation.
4. Students must choose two courses for this block.
Department of Consumer and Industry Services Management

Revisions to Commercial Recreation and Tourism Management Concentration curriculum:

TO:

**Freshman**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>English</td>
<td>6</td>
</tr>
<tr>
<td>1 History Electives</td>
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<td>HRD 210</td>
<td>3</td>
</tr>
<tr>
<td>2 Humanities Electives</td>
<td>6</td>
</tr>
<tr>
<td>Math Electives</td>
<td>6</td>
</tr>
<tr>
<td>Recreation &amp; Tourism Mgt 201</td>
<td>4</td>
</tr>
</tbody>
</table>

**Sophomore**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising 250 or <strong>Journalism 280</strong></td>
<td>3</td>
</tr>
<tr>
<td>Economics 201, and 311 or 313</td>
<td>7</td>
</tr>
<tr>
<td>Health 310</td>
<td>3</td>
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<tr>
<td>Journalism 201</td>
<td>3</td>
</tr>
<tr>
<td>Natural Science Electives</td>
<td>6-8</td>
</tr>
<tr>
<td>Speech 210 or 240</td>
<td>3</td>
</tr>
<tr>
<td>Recreation &amp; Tourism Mgt 290</td>
<td>2-3</td>
</tr>
<tr>
<td>Recreation &amp; Tourism Mgt 320</td>
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**Junior**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Business Law</td>
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<td>3 Economics Electives</td>
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</tr>
<tr>
<td>Foreign Language, Multicultural</td>
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<td>Integrative Electives</td>
<td>6</td>
</tr>
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<td>4 FOR 321, 423, HRA 324, <strong>335</strong>, 423, 425;</td>
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</tr>
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<td>RCS 411</td>
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<td><strong>RCS 350</strong></td>
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<tr>
<td>Recreation and Tourism Mgt 310, 415, 470</td>
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</tr>
<tr>
<td>Recreation and Tourism Mgt 390</td>
<td>2-3</td>
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</table>

**Senior**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Electives</td>
<td>8</td>
</tr>
<tr>
<td>Recreation and Tourism Mgt 410, 430, 440</td>
<td>9</td>
</tr>
<tr>
<td>Recreation and Tourism Mgt 490</td>
<td>12</td>
</tr>
</tbody>
</table>

Total Hours 128

1 History Electives: Any course with a history prefix.
2 Humanities Electives: art history/appreciation, foreign language at the intermediate level or above, philosophy, music appreciation/history, or religious studies.
3 A minimum of 48 upper division hours is required for graduation
4 Students must choose two courses from this block
5 Select 9 hours of upper division Economics courses.
Department of Consumer and Industry Services Management

Commercial Recreation and Tourism Management Concentration Revisions:

Revise RTM accreditation clause From:

(Accredited in General Recreation by NRPA/AALR)

To:

Accredited in General Recreation and Therapeutic Recreation by NRPA/AALR

Revise course number, title and description:

From:

RTM 110 - Recreation Foundations of Leadership (4)

To:

RTM 201 - Recreation and Tourism Foundations and Leadership (4) Introduction to the field of leisure, recreation and tourism focusing on understanding concepts, philosophies, and professional practices in the leisure service industry. Theories and practices of recreation leadership.

Department of Health and Safety Sciences

Revise course title, description and prerequisites:

From:

PH 410 Health in the Work Environment (3)

To:

PH 410 Worksite Health Promotion (3) Foundations of health promotion programs delivered in the worksite that revolve around issues relative to employees and management. Emphasis on theory, program design, implementation and evaluation from the perspective of the health promotion specialist. Prereq: H300

Department of Human Resource Development

The Department of Human Resource Development wishes to change its majors from Business/Marketing Education with concentrations in Teaching and in Training; and Industrial Education Education, in Technology Education, and in Trades and Industries
To:

One major in: Human Resource Development with concentrations in Teacher Education and in Training and Development.

The curricular changes were made in January of 1998, but request for a change of major name was not made at the time. Because approval by the Board of Trustees is also required, formal approval by the Council in now requested.

The degree will remain Bachelor of Science in Human Ecology.

Effective Fall 1999

Department of Human Resource Development

Revise Training and Development Concentration curriculum showcase on page 132 of the 1998-99 Undergraduate Catalog:

In the freshman year, delete the option of Mathematics 119 and 125. Revise the line to read Mathematics Electives. Footnote four should read: . . . last 30 hours from UT may not include HRD 350, 351, and Internships.

Department of Nutrition

Revise the curriculum showcase for Nutrition on page 132 of the Undergraduate catalog:

In the senior year:
1. Delete three (3) credit hours of electives. Revise the number of Electives hours to six (6).
2. Add HRA 326, (3)
TO: Linda Tober, Secretary of Undergraduate Council

FROM: Carol Seavor, Associate Dean for Academic Affairs
       College of Nursing

DATE: 12/21/98

RE: Curriculum and Catalog Revisions

Please find attached catalog changes relative to our BSN curriculum. These changes were accepted by the CON faculty on 12/18/98.

Please let me know if you have any questions or need further information and thank you for your time and assistance with processing these proposed changes.
1. To Undergraduate Catalog, 1998-99, page 134, column 3 “RN Track for Bachelor of Science in Nursing”, item #5:

Add as last sentence to item 5: **Challenge of N304 and/or N440 will carry a grade of S/NC.**

Rationale: Consistent with other challenge grades since none of the courses that are challenged by NLN examination are given a letter grade. The challenge to 440 is based on work history and development of a portfolio demonstrating training, education and experience in the areas covered in the course. It is not possible to reasonably assign a number grade to this portfolio.

2. Page 134, column 3, item #7, sentence #1.

Delete “and” at beginning of line three (3) put a period after previous word “year” and capitalize “S” in the following word “students” so that the first sentence becomes two sentences and the first sentence now reads: “The entire upper division nursing curriculum can be completed in one calendar year”.

Add as new second and third sentences to item #7: **Students not enrolled in nursing courses for 2 consecutive semesters, excluding summer, will be administratively withdrawn from the program. Those seeking re-entry must reapply to the College of Nursing.**

Rationale: Better continuity of learning and better tracking of students that will allow for better planning for courses and clinical placements for students.

3. Page 194, description of Nursing courses, column two, course N304 Nursing Assessment and Wellness Promotion.

Add to the last line following the word “skills”: **For RNs this course is prerequisite to N330, N401, N411, N431, and N433.**

Rationale: RNs need to demonstrate proficiency in assessment before moving on to other clinical nursing courses where assessment competency must be applied.

4. Page 194, description of Nursing courses, column two, course N305 Transitions to Professional Nursing.

Add to the last line following the word “services”: **Prerequisite to N330, N332, N401, N411, N431, and N433. Co-requisite N304.**

Rationale: This course is designed to introduce the RN student to baccalaureate Nursing and is foundational to all other courses.
## COURSES NOT OFFERED IN FOUR OR MORE YEARS TO BE DROPPED

**Effective Fall 1999**

### COLLEGE OF AGRICULTURAL SCIENCES AND NATURAL RESOURCES

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