The effective date for new programs subject to Statewide Academic Program review is implemented in accordance with the Statewide Academic Program Review calendar.
TO: Faculty Senate

This report is prepared and distributed for the following purposes:

1. To report new academic programs, changes in academic programs, discontinuations of academic programs, new courses, permanent changes in courses, and deletions of courses.
2. To notify the initiating colleges, schools, and departments of approval by the University Committee on Curriculum of their requests for new academic programs, changes in academic programs, discontinuations of academic programs, new courses, permanent changes in courses, and deletions of courses. Any items not approved by the Faculty Senate will be reported to the appropriate college and department or school.
3. To provide information to members of the faculty in each department about academic programs and courses in all colleges, departments, and schools of the University.

Reports of the University Committee on Curriculum to the Faculty Senate are organized as follows:

PART I - NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES:
Organized by colleges in alphabetical order. For a given college, academic units are organized in alphabetical order. For a given academic unit, degrees, majors, and specializations are organized in alphabetical order.

PART II - NEW COURSES:¹
Organized by academic units in alphabetical order; All-University courses appear last. For a given academic unit, courses are organized according to the names associated with course subject codes, in alphabetical order. Courses with the same subject code are in numerical order.

PART III - COURSE CHANGES:¹
Organized by academic units in alphabetical order; All-University courses appear last. For a given academic unit, courses are organized according to the names associated with course subject codes, in alphabetical order. Courses with the same subject code are in numerical order.

Not all of the above categories, and not all of the colleges and academic units, will necessarily appear in any given Senate Report.

¹One or more of the abbreviations that follow may be included in a course entry:
P: = Prerequisite monitored in SIS
C: = Corequisite
R: = Restriction
RB: = Recommended background
SA: = Semester Alias
TO: Faculty Senate  
FROM: University Committee on Curriculum  
SUBJECT: New Academic Programs and Program Changes:  
New Courses and Course Changes  

PART I - NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

1. Change the requirements for the Master of Science degree in Agricultural, Food and Resource Economics in the Department of Agricultural, Food, and Resource Economics. The University Committee on Graduate Studies (UCGS) approved this request at its February 6, 2017 meeting.

   a. Under the heading Requirements for the Master of Science Degree in Agricultural, Food and Resource Economics make the following changes:

      (1) Under the heading Requirements for Both Plan A and Plan B, replace items 3. and 4. with the following:

         3. A minimum of 3 credits in courses in microeconomic theory, selected from AFRE 805, EC 812A or equivalent.
         4. A minimum of 9 credits in courses in quantitative analysis, including 3 credits of mathematics for economists (equivalent to AFRE 801 or EC 811A), 3 credits of statistics (AFRE 802, EC 820A or equivalent), and one elective 3 credit quantitative methods course.

      (2) Under the heading Additional Requirements for Plan B, replace item 1. with the following:

         1. A research paper or papers representing not fewer than 3 credits.

   Effective Summer 2017.

2. Change the requirements for the Doctor of Philosophy degree in Agricultural, Food and Resource Economics in the Department of Agricultural, Food, and Resource Economics. The University Committee on Graduate Studies (UCGS) approved this request at its February 6, 2017 meeting.

   a. Under the heading Requirements for the Doctor of Philosophy Degree in Agricultural, Food and Resource Economics replace the entire entry with the following:

      1. Complete all of the following courses (20 credits):
      
         AFRE 900A Applied Microeconomics I     3
         AFRE 900B Applied Microeconomics II     3
         EC 811A Mathematical Applications in Economics     2
         EC 812A Microeconomics I     3
         EC 812B Microeconomics II     3
         EC 820A Econometrics IA     3
         EC 820B Econometrics IB     3

      2. Complete 9 credits in one of four major fields in Agricultural, Food and Resource Economics: development economics, environmental and resource economics, food and agribusiness management, or food and agricultural markets.

      3. Complete 6 credits in a second major field in Agricultural, Food and Resource Economics.

      4. Complete 6 credits of electives in courses not used to fulfill requirements 1., 2., and 3.
5. Pass written comprehensive examinations in microeconomic theory and econometrics (requirement 1.) no later than the end of the second year and in the student's chosen major field (requirement 2.) by the end of the third year.

6. Complete a minimum of 24 credits of doctoral dissertation research in AFRE 999.

7. Present and obtain formal approval for the proposed dissertation research by the end of the fourth academic year.

8. Present the results of the research at the outset of the final oral examination, and prepare a research paper suitable for submission to a professional journal.

9. A grade point average of 3.0 in the student's approved course program is required before the student can be certified for graduation. Collateral courses are not included in this calculation.

Effective Summer 2017.

3. Change the requirements for the Bachelor of Science degree in Nutritional Sciences in the Department of Food Science and Human Nutrition.

a. Under the heading Requirements for the Bachelor of Science Degree in Nutritional Sciences make the following changes:

(1) Change the total credits in item 3. a. from '40 to 42' to '41 to 43'.

(2) In item 3. a. (1) change the credits from '24' to '25' and add the following course:

| HNF 250L Professional Development and Career Planning in Nutrition | 1 |

(3) In item 3. a. (5) add HNF 494 as a choice to complete the experiential learning requirement.

(4) In item 3. b. under the Public Health Nutrition concentration, make the following changes:

(a) Change the total credits from '41 to 44' to '40 to 43'.

(b) In item (1) change the total credits from '24' to '23'.

(c) In item (1) delete the following course:

| HNF 485 Advanced Research Methods in Nutrition and Health | 4 |

Add the following course:

| HNF 485 Advanced Public Health Nutrition | 3 |

Effective Summer 2017.
4. Change the requirements for the **Bachelor of Science** degree in **Horticulture** in the Department of Horticulture.

*The concentrations in the Bachelor of Science degree in Horticulture are noted on the student’s academic record when the requirements for the degree have been completed.*

a. Under the heading **Requirements for the Bachelor of Science Degree in Horticulture** make the following changes:

(1) In item 3. b. under **Horticultural Science** make the following changes:

(a) In item (2) delete the following course:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRT 332</td>
<td>Tree Fruit Production and Management</td>
<td>2</td>
</tr>
</tbody>
</table>

Add the following course:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRT 332</td>
<td>Tree Fruit Production and Management</td>
<td>3</td>
</tr>
</tbody>
</table>

(b) In item (3) delete the following course:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSS 302</td>
<td>Principles of Weed Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Add the following courses:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSS 288</td>
<td>Principles of Weed Management</td>
<td>3</td>
</tr>
<tr>
<td>HRT 253</td>
<td>Compost Production and Use</td>
<td>1</td>
</tr>
<tr>
<td>HRT 475</td>
<td>International Studies in Horticulture</td>
<td>3</td>
</tr>
</tbody>
</table>

(2) In item 3. b. under **Sustainable and Organic Horticulture** make the following changes:

(a) Change the total credits from ‘34’ to ‘31’.

(b) In item (1) change the total credits from ‘16’ to ‘13’ and delete the following course:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRT 258</td>
<td>Study a Farm</td>
<td>3</td>
</tr>
</tbody>
</table>

(c) In item (2) delete the following courses:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSS 302</td>
<td>Principles of Weed Management</td>
<td>3</td>
</tr>
<tr>
<td>HRT 332</td>
<td>Tree Fruit Production and Management</td>
<td>2</td>
</tr>
</tbody>
</table>

Add the following courses:

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<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CSS 288</td>
<td>Principles of Weed Management</td>
<td>3</td>
</tr>
<tr>
<td>HRT 332</td>
<td>Tree Fruit Production and Management</td>
<td>3</td>
</tr>
<tr>
<td>HRT 475</td>
<td>International Studies in Horticulture</td>
<td>3</td>
</tr>
</tbody>
</table>

(3) In item 3. b. under **Horticulture Landscape Design, Construction, and Management** make the following changes:

(a) In item (2) delete the following course:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSS 302</td>
<td>Principles of Weed Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Add the following courses:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSS 288</td>
<td>Principles of Weed Management</td>
<td>3</td>
</tr>
<tr>
<td>HRT 475</td>
<td>International Studies in Horticulture</td>
<td>3</td>
</tr>
</tbody>
</table>

Effective Fall 2017.
5. Change the requirements for the **Minor in Plant, Animal and Microbial Biotechnology** in the Department of Horticulture.

   a. Under the heading **Minor in Plant, Animal and Microbial Biotechnology** make the following change in item 2.:

      (1) Delete the following course:
      ZOL 341 Fundamental Genetics     4
      Add the following course:
      IBIO 341 Fundamental Genetics     4

   Effective Fall 2017.

### COLLEGE OF ARTS AND LETTERS

1. Change the requirements for the **Master of Fine Arts** degree in **Studio Art** in the Department of Art, Art History, and Design. The University Committee on Graduate Studies (UCGS) approved this request at its February 6, 2017 meeting.

   a. Under the heading **Admission** make the following changes:

      (1) In paragraph three, add the following as the last sentence:
      A cumulative grade-point average of 3.0 is required for regular admission.

      (2) In paragraph four, replace the last sentence with the following:
      Application materials for admission must be received by January 5.

   b. Under the heading **Requirements for the Master of Fine Arts Degree in Studio Art** make the following change:

      (1) Replace item 4. a. with the following:
      A minimum of 30 credits in one of the following six areas of concentration: ceramics, electronic art and intermedia, graphic design, painting, printmaking, or sculpture.

   Effective Summer 2017.

2. Change the requirements for the **Master of Arts** degree in **Literature in English** in the Department of English. The University Committee on Graduate Studies (UCGS) approved this request at its February 6, 2017 meeting.

   a. Under the heading **Requirements for the Master of Arts Degree in Literature in English** make the following changes:

      (1) Replace item 1. with the following:
      Complete the following course within the first two semesters of enrollment in the program (3 credits):
      ENG 802 Literary Criticism and Theory     3

      (2) In item 2. change the credits from ‘21’ to ‘24’.

   Effective Fall 2017.
3. Change the requirements for the **Doctor of Philosophy** degree in **English** in the Department of English. The University Committee on Graduate Studies (UCGS) approved this request at its February 6, 2017 meeting.

a. Under the heading **Requirements for the Doctor of Philosophy Degree in English** make the following changes:

   (1) Replace item 1. with the following:
   
   Complete both of the following courses within the first four semesters of enrollment in the program (4 credits):
   
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 802</td>
<td>Literary Criticism and Theory</td>
<td>3</td>
</tr>
<tr>
<td>ENG 820</td>
<td>Professionalization Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>

   (2) Replace item 3. a. with the following:
   
   Demonstrate advanced reading proficiency at the college-level in any language other than English through completion of course work in the language at the 400-level or above, or by passing an advanced reading comprehension and translation exam.

   (3) Replace item 3. b. with the following:
   
   Demonstrate second-year proficiency at the college-level in two languages other than English through completion of course work through the 200-level, or by passing an examination of reading comprehension.

Effective Fall 2017.

4. Change the requirements for the **Bachelor of Arts** degree in **Religious Studies** in the Department of Religious Studies.

   *The concentration in the Bachelor of Arts degree in Religious Studies is noted on the student’s academic record when the requirements for the degree have been completed.*

a. Under the heading **Requirements for the Bachelor of Arts Degree in Religious Studies** make the following changes:

   (1) In item 1., paragraph two, replace with the following:

   The University’s Tier II writing requirement for the Religious Studies major is met by completing Religious Studies 410 or 412 or 413 or 420 or 425 or 430 or 432 or 441 or 460 or 461 or 465 or 471 or 480 or 485 or 490 or 491 or 499. Those courses are referenced in item 3. e. below.

   (2) In item 3. e. delete the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REL 435</td>
<td>Muhammed and Early Muslim Community (W)</td>
<td>3</td>
</tr>
<tr>
<td>REL 451</td>
<td>Modern Hindu Thought (W)</td>
<td>3</td>
</tr>
</tbody>
</table>

   Add the following course:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REL 425</td>
<td>Apocalypse Then and Now (W)</td>
<td>3</td>
</tr>
</tbody>
</table>

Effective Fall 2017.
5. Change the requirements for the Bachelor of Arts degree in Theatre in the Department of Theatre.

a. Under the heading Requirements for the Bachelor of Arts Degree in Theatre make the following changes:

   (1) Replace item 3. a. (2) with the following:

   THR 211 Introduction to Lighting Design    3
   THR 212 Introduction to Costume Design    3
   THR 214 Introduction to Scene Design    3
   THR 216 Introduction to Sound Design    3
   THR 219 Introduction to Projection Design for the Stage  3

   (2) In item 3. a. (3) change the credits from ‘9’ to ‘10’.

Effective Fall 2017.

6. Change the requirements for the Bachelor of Fine Arts degree in Theatre in the Department of Theatre.

a. Under the heading Requirements for the Bachelor of Fine Arts Degree in Theatre make the following changes:

   (1) Replace item 3. b. with the following:

   THR 211 Introduction to Lighting Design    3
   THR 212 Introduction to Costume Design    3
   THR 214 Introduction to Scene Design    3
   THR 216 Introduction to Sound Design    3
   THR 219 Introduction to Projection Design for the Stage  3

   (2) In item 3. c. make the following changes:

   (a) Change the total credits from ‘30’ to ‘31’.

   (b) In the Acting concentration make the following changes:

       (i) In item (1) change the credits from ‘11’ to ‘10’ and delete the following course:

               THR 491 Practicum: Acting    1

       (ii) In item (2) change the credits from ‘19’ to ‘21’ and add the following course:

               THR 441 Advanced Play Directing    3

   (c) In the Design concentration make the following changes:

       (i) Replace item (1) with the following:

           Three of the following courses not taken to satisfy requirement 3. b.
           above (9 credits):

           THR 211 Introduction to Lighting Design    3
           THR 212 Introduction to Costume Design    3
           THR 214 Introduction to Scene Design    3
           THR 216 Introduction to Sound Design    3
           THR 219 Introduction to Projection Design for the Stage  3
**PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES**

(ii) Add the following item (2):
One of the following courses (3 credits):
- THR 411 Stage Lighting Design 3
- THR 412 Stage Costume Design 3
- THR 413 Stage Make-up 3
- THR 414 Stage Scene Design 3
- THR 416 Stage Sound Design 3
- THR 419 Projection Design for Live Performance 3

(iii) Renumber item (2) to item (3) and change the credits from ‘18’ to ‘19’ and delete the following courses:
- THR 316 Stage Management 3
- THR 462 Theatrical Touring Production 2
- THR 463 Stage Rigging 3
- THR 464 Advanced Stagecraft 3

Add the following courses:
- THR 314 Stagecraft 3
- THR 416 Stage Sound Design 3

(d) Add the following concentration:

**Stage Management**

(1) All of the following courses (9 credits):
- THR 316 Stage Management 3
- THR 466 Advanced Stage Management 3
- THR 467 Production Management 3

(2) Two of the following courses not taken to satisfy requirement 3. b. above (6 credits):
- THR 211 Introduction to Lighting Design 3
- THR 212 Introduction to Costume Design 3
- THR 214 Introduction to Scene Design 3
- THR 216 Introduction to Sound Design 3
- THR 219 Introduction to Projection Design for the Stage 3

(3) At least 16 credits from the following courses (16 credits):
- ACM 271 Introduction to Arts and Cultural Management 3
- ACM 461 Strategies of Arts and Cultural Management 3
- ACM 463 Event Production and Planning for Arts and Culture 3
- THR 201 Acting II 3
- THR 204 Topics in Acting/Directing I 1 to 6
- THR 304 Topics in Acting/Directing II 1 to 6
- THR 361 Topics in Lighting Technology 3
- THR 362 Topics in Costume Technology 3
- THR 364 Topics in Scenery Technology 3
- THR 369 Topics in Digital Technology 3
- THR 404 Topics in Acting/Directing III 1 to 6
- THR 411 Stage Lighting Design 3
- THR 412 Stage Costume Design 3
- THR 413 Stage Make-up 3
- THR 414 Stage Scene Design 3
### PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 416</td>
<td>Stage Sound Design</td>
<td>3</td>
</tr>
<tr>
<td>THR 419</td>
<td>Projection Design for Live Performance</td>
<td>3</td>
</tr>
<tr>
<td>THR 441</td>
<td>Advanced Play Directing</td>
<td>3</td>
</tr>
<tr>
<td>THR 493</td>
<td>Internship in Theatre</td>
<td>1 to 3</td>
</tr>
</tbody>
</table>

Effective Fall 2017.

7. Change the requirements for the **Master of Fine Arts** degree in **Theatre** in the Department of Theatre. The University Committee on Graduate Studies (UCGS) approved this request at its February 6, 2017 meeting.

a. Under the heading **Requirements for the Master of Fine Arts Degree in Theatre** make the following changes:

(1) Under the **Design** concentration make the following changes in item (1):

   (a) Delete the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 411</td>
<td>Stage Lighting Design</td>
<td>3</td>
</tr>
<tr>
<td>THR 412</td>
<td>Stage Costume Design</td>
<td>3</td>
</tr>
<tr>
<td>THR 414</td>
<td>Stage Scene Design</td>
<td>3</td>
</tr>
<tr>
<td>THR 416</td>
<td>Audio and Visual Technology</td>
<td>3</td>
</tr>
<tr>
<td>THR 419</td>
<td>Digital Design for Live Performance</td>
<td>3</td>
</tr>
<tr>
<td>THR 813</td>
<td>Period Resources and Research</td>
<td>6</td>
</tr>
<tr>
<td>THR 894</td>
<td>Special Projects in Theatre</td>
<td>6</td>
</tr>
<tr>
<td>Electives</td>
<td>approved by the student’s guidance committee</td>
<td>10</td>
</tr>
</tbody>
</table>

   Add the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 813</td>
<td>Period Resources and Research</td>
<td>3</td>
</tr>
<tr>
<td>THR 894</td>
<td>Special Projects in Theatre</td>
<td>4</td>
</tr>
</tbody>
</table>

   (b) Change the note following item (1) to reduce the required design projects from ‘five’ to ‘four’.

   (c) Add the following item (2):

   Three of the following courses (9 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 411</td>
<td>Stage Lighting Design</td>
<td>3</td>
</tr>
<tr>
<td>THR 412</td>
<td>Stage Costume Design</td>
<td>3</td>
</tr>
<tr>
<td>THR 414</td>
<td>Stage Scene Design</td>
<td>3</td>
</tr>
<tr>
<td>THR 416</td>
<td>Audio and Visual Technology</td>
<td>3</td>
</tr>
<tr>
<td>THR 419</td>
<td>Digital Design for Live Performance</td>
<td>3</td>
</tr>
</tbody>
</table>

   (d) Add the following item (3):

   Electives approved by the student’s guidance committee (11 credits)

Effective Fall 2017.
ELI BROAD COLLEGE OF BUSINESS

1. Establish a **Minor in Insurance and Risk Management** in the Department of Finance. The University Committee on Undergraduate Education (UCUE) approved this request at its December 1, 2016 meeting.

a. **Background Information:**

   The Minor in Insurance and Risk Management, administered by the Department of Finance, will provide students with a sound foundation for employment in the insurance and financial industries.

   There has been significant interest from local and statewide corporations for this program, especially one that builds on business-related skills of MSU students. The curriculum design enables students to perform well in these industries as well as in risk management roles with non-financial firms. Students learn the key concepts of insurance and risk management from a financial perspective, stressing an understanding of the structure, evolution and regulation of financial and insurance markets.

   The insurance industry offers high-paying skilled jobs in Michigan. The Insurance Industry Engagement Plan states that in Michigan, the insurance industry directly employs 41,000 people and represents a growing business sector, both in terms of employment and, also, the impact on the state’s economy. This figure does not include ‘insurance-supported’ jobs, primarily the state’s 58,000 insurance agents, or their support staff. When combined, the insurance sector direct and related employment totals over 114,000. The average compensation of those directly employed by insurance companies is over $85,000, compared to $59,000 for the average employee in Michigan. Last year, insurance companies paid their employees over $3.5 billion in wages and benefits. Over $13 billion in commissions were also paid to state insurance agents.

   Many peer schools offer undergraduate programs in insurance and risk management. Some highly rated programs are at University of Georgia, University of Wisconsin, Penn State University, Georgia State University, University of Pennsylvania, Temple University, and Florida State University.

b. **Academic Programs Catalog Text:**

   The Minor in Insurance and Risk Management, administered by the Department of Finance, teaches the skills necessary for students seeking careers as underwriters, claim adjusters, agents, or brokers in the insurance organization, as well as careers in risk management in financial institutions. Students will learn how to quantify, manage, and price risk, while learning the structure, evolution and regulation of the finance and insurance sector of the economy.

   The minor is available as an elective to students who are enrolled in bachelor’s degree programs at Michigan State University. With the approval of the department and college that administer the student's degree program, the courses that are used to satisfy the minor may also be used to satisfy the requirements for the bachelor’s degree.

**Admission**

Students who plan to complete the requirements of the minor should consult the undergraduate adviser in the Department of Finance to apply. To be admitted to the minor students must have completed two of the following courses with a grade-point average of 3.0 through selection of a course from item a. and a course from item b.:

a. STT 315 Introduction to Probability and Statistics for Business 3
   STT 351 Probability and Statistics for Engineering 3
   STT 421 Statistics I 3
   STT 441 Probability and Statistics I: Probability 3

b. FI 311 Financial Management 3
   FI 320 Introduction to Finance 3
### Requirements for the Minor in Insurance and Risk Management

Students must complete 15 credits from the following:

1. At least two of the following courses (5 or 6 credits):
   - EC 301 Intermediate Microeconomics \( 3 \)
   - EC 330 Money, Banking, and Financial Markets \( 3 \)
   - FI 312 Introduction to Investments \( 3 \)
   - FI 321 Theory of Investments \( 3 \)
   - FI 413 Management of Financial Institutions \( 3 \)
   - FI 414 Advanced Business Finance (W) \( 3 \)
   - MKT 319 Marketing Research \( 3 \)
   - SCM 475 Supply Chain Decision Modeling \( 2 \)

2. All of the following courses (9 credits):
   - FI 380 Principles of Insurance and Risk Management \( 3 \)
   - FI 480 Financial Risk Management \( 3 \)
   - FI 481 Crises, Insurance, and Risk Management \( 3 \)

**Effective Fall 2017.**

2. Change the requirements for the **Graduate Specialization in Hospitality Business** in the School of Hospitality Business. The University Committee on Graduate Studies (UCGS) approved this request at its February 6, 2017 meeting.

   a. Under the heading **Requirements for the Graduate Specialization in Hospitality Business** make the following changes:

      (1) In item 1. delete the following courses:

         | Course   | Credits |
         |----------|---------|
         | HB 801   | 3       |
         | HB 802   | 3       |
         | HB 875   | 3       |

      Add the following courses:

         | Course                                 | Credits |
         |----------------------------------------|---------|
         | HB 841 Contemporary Trends in Cuisine and Culture | 3       |
         | HB 847 Hospitality Business Law         | 3       |
         | HB 886 Marketing in the Hospitality Industry | 3       |

      (2) Add the statement in item 3. as a note in item 2. to indicate what the student will do in the independent study.

   **Effective Fall 2017.**

**COLLEGE OF COMMUNICATION ARTS AND SCIENCES**

1. Change the name of the **Bachelor of Arts** degree in Advertising to Advertising Creative in the Department of Advertising and Public Relations.

   Students admitted to the major prior to Summer 2017 will be awarded a Bachelor of Arts Degree in Advertising.

   Students admitted to the major Summer 2017 and forward will be awarded a Bachelor of Arts Degree in Advertising Creative.

   **Effective Summer 2017.**
2. Change the requirements for the **Bachelor of Arts** degree in **Advertising Creative** in the Department of Advertising and Public Relations. The University Committee on Undergraduate Education (UCUE) approved this request at its December 1, 2016 meeting.

The concentrations in the Bachelor of Arts degree in Advertising Creative will be noted on the student’s academic record when the requirements for the degree have been completed.

a. Under the heading **Admission as a Junior** make the following changes:

   (1) Remove ‘as a Junior’ from the heading.

   (2) Replace the entry with the following:

   Enrollment in the Advertising Creative program is limited. In addition to the university and college requirements, students must complete Advertising 205 and Psychology 101 with a combined minimum grade-point average of 2.00.

b. Under the heading **Requirements for the Bachelor of Arts Degree in Advertising Creative** replace the entire entry with the following:

1. The University requirements for bachelor's degrees as described in the Undergraduate Education section of the catalog; 120 credits, including general elective credits, are required for the Bachelor of Arts degree in Advertising Creative.

   The University’s Tier II writing requirement for the Advertising Creative major is met by completing Advertising 486. That course is referenced in item 3. a. below.

2. The requirements of the College of Communication Arts and Sciences for the Bachelor of Arts degree.

3. The following requirements for the major.

   **C R E D I T S**

   a. All of the following core courses (20 credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADV 205</td>
<td>Principles of Advertising</td>
<td>3</td>
</tr>
<tr>
<td>ADV 210</td>
<td>Concept Development</td>
<td>1</td>
</tr>
<tr>
<td>ADV 245</td>
<td>Multimedia Commercial Production</td>
<td>3</td>
</tr>
<tr>
<td>ADV 330</td>
<td>Advertising Management</td>
<td>3</td>
</tr>
<tr>
<td>ADV 342</td>
<td>Account Planning and Research</td>
<td>3</td>
</tr>
<tr>
<td>ADV 450</td>
<td>Portfolio Presentation</td>
<td>1</td>
</tr>
<tr>
<td>ADV 475</td>
<td>Advertising and Society</td>
<td>3</td>
</tr>
<tr>
<td>ADV 486</td>
<td>Integrated Campaigns (W)</td>
<td>3</td>
</tr>
</tbody>
</table>

   The completion of Advertising 486 satisfies the capstone/synthesis requirement for the Advertising Creative major.

b. Both of the following courses (6 credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS 110</td>
<td>Creative Thinking</td>
<td>3</td>
</tr>
<tr>
<td>CAS 112</td>
<td>Story, Sound and Motion</td>
<td>3</td>
</tr>
</tbody>
</table>

c. Two of the following courses (2 credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS 203</td>
<td>Design in Media Settings</td>
<td>1</td>
</tr>
<tr>
<td>CAS 204</td>
<td>Web Design in Media Settings</td>
<td>1</td>
</tr>
<tr>
<td>CAS 205</td>
<td>Photography in Media Settings</td>
<td>1</td>
</tr>
<tr>
<td>CAS 206</td>
<td>Graphics and Illustration in Media Settings</td>
<td>1</td>
</tr>
</tbody>
</table>

d. One of the following concentrations (15 or 16 credits):

   **Art Direction** (15 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADV 222</td>
<td>Introduction to Copywriting</td>
<td>3</td>
</tr>
<tr>
<td>ADV 225</td>
<td>Writing for Public Relations</td>
<td>3</td>
</tr>
<tr>
<td>ADV 224</td>
<td>Introduction to Creative Media</td>
<td>3</td>
</tr>
<tr>
<td>ADV 326</td>
<td>Advanced Creative: Media I</td>
<td>3</td>
</tr>
<tr>
<td>ADV 354</td>
<td>Interactive Advertising Design</td>
<td>3</td>
</tr>
<tr>
<td>ADV 428</td>
<td>Advanced Creative: Media II</td>
<td>3</td>
</tr>
</tbody>
</table>

   **Copywriting** (15 to 16 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADV 222</td>
<td>Introduction to Copywriting</td>
<td>3</td>
</tr>
<tr>
<td>ADV 225</td>
<td>Writing for Public Relations</td>
<td>3</td>
</tr>
<tr>
<td>ADV 322</td>
<td>360-degree Copywriting</td>
<td>3</td>
</tr>
</tbody>
</table>
PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

ADV 422 Advanced Copywriting: Creating Experiences
Additional writing class from a list of approved courses as approved by the advisor
3 or 4

e. Both of the following courses (7 credits):
MKT 327 Introduction to Marketing
PSY 101 Introductory Psychology
3
4

Effective Summer 2017.

3. Establish a Bachelor of Science degree in Advertising Management in the Department of Advertising and Public Relations. The University Committee on Undergraduate Education (UCUE) recommended approval of this request at its December 1, 2016 meeting.

a. Background Information:

The Department of Advertising is one of the oldest and largest university advertising, or advertising and public relations, departments in the world. It was established at MSU in 1958 as part of the College of Communication Arts and Sciences (established in 1955). At the time, there were no more than one or two other academic Departments of Advertising anywhere in the United States. The department currently has 1400 students with 1100 – 1200 seeking the Media Management concentration and 200-300 seeking the Creative concentration. Rankings in advertising and public relations are not conducted regularly or frequently. However, the MSU program consistently ranks near the top among competing programs, out of well over 200 such programs. Most recently, the department ranking is #3 and it is consistently in the top 5 since 1998.

University programs in advertising in the United States and many other countries generally focus on the management and strategic functions of the industry. Very few offer significant training in the art and writing of advertisements, with just a few notable exceptions (University of Texas, University of Oregon, Virginia Commonwealth University, Southern Methodist University). MSU’s advertising program is one of those exceptions, currently offering concentrations in both Management (the strategic planning side of the industry) and Creative (the art and writing side). This proposal is to separate the existing program into two degrees, a Bachelor of Arts degree in Advertising Creative and a Bachelor of Science degree in Advertising Management. The content of these degrees is not “new.”

In 2006, the College of Communication Arts and Sciences was charged with “bringing back the arts to Communication Arts and Sciences.” To that end, the College hired three faculty members and additional faculty members were hired in subsequent years. A result, the Media Sandbox, a College level initiative, emerged as an integrated program of cinematic arts, journalism, advertising, and game development, with additional skills in graphic design, web design, application development, visual storytelling, 3D art and animation. The removal of the advertising management side of the program to a Bachelor of Science degree allows the department to demonstrate the commitment to the “arts” side of the program by separating the advertising creative content into its own Bachelor of Arts.

Since at least 2008, the MSU Advertising program was split into two transcriptable concentrations, Media Management, and Creative, sharing a common core of 20 credits. Both sides of the equation acknowledge the need to have a basic understanding and appreciation for the other side. However, neither side of the program was pleased with the program structure. The creative side needs a reduced focus on some of the management side courses with a stronger focus on creative output and critique. In a survey conducted in early 2016, the split between management-focused and creative-focused students was evident. Creative-focused students indicated a need to take more creative classes, while management-focused students wanted more skill-based and analytics courses. Before the 2006 focus on the arts, many creative advertising students who wanted to seek art director positions in agencies upon graduation, felt their portfolios were lacking and subsequently enrolled in a portfolio school to bring their portfolios to a competitive level. Over the last 8 to 10 years, the quality and scope of student work increased to the point that rarely do students feel the need to attend a portfolio school to be competitive in the marketplace. The final step in this process is the separate degree designated as a Bachelor of Arts in Advertising.
Creative. Likewise, the management side needs a stronger core of required courses to be competitive in the marketplace with lesser focus on elective credits.

A further effect on curriculum decisions indicates students interested in Advertising Creative tend to identify their educational interests early in their college career while students interested in Advertising Management often change majors late in their college career. In addition, with the number of Advertising Management majors continuing to increase (at a rate of about 200 per year over the last 3 years to a current total of 1400), faculty felt it was important to more carefully control the competencies of graduates in order to maintain the brand commitment to our students and external constituencies. In an effort to reduce time-to-degree for Advertising Management students, but maintain quality and program integrity, faculty assessed that it was more important to focus resources on building a stronger core foundation, so that even students who might declare Advertising Management late in their college career could still have a comprehensive nucleus of courses that serve as an entryway for a variety of positions in the industry. Students who declare Advertising Management earlier in their college experience will have ample electives that can be focused within numerous salient minors, preparing them for more specialized and competitive marketplace positions. The proposed Bachelor of Science in Advertising Management provides a win-win curriculum for students in either of the situations.

Rather than propose two different Bachelor of Arts degrees, the Bachelor of Science was chosen for Advertising Management, due to the continued and increased emphasis on the science of advertising through research/data gathering, analysis, market analytics and social media analytics. This is certainly an area of growth for the department. In a survey of our recent alumni who graduated in the past five years, they noted that the Advertising program helped prepare them for their current jobs by enhancing communication skills, knowledge of the advertising field, creative thinking. While still at a satisfactory level, alumni reported being less confident about their analytical skills, public speaking skills, human resource management, and finance knowledge in their current jobs. Interestingly, alumni satisfaction with the real-world relevance of the courses they took while at MSU, emphasis on developing analytic skills, and knowledge of the field of marketing were all three significant predictors of intentions to recommend the MSU Advertising program to others. This highlights emphasis on management and analytical skills as areas of growth and differentiation in the marketplace. Individual courses have increased content in scientific methods and applications and two of the new courses proposed include emphasis in analytics. In addition, this move would be in line with the majority of our competitors, as we would join University of Texas, University of Florida, University of Illinois, and University of Tennessee in offering a Bachelor of Science degree (University of Georgia offers a Bachelor of Arts in Journalism degree).

Additionally, while we will be joining our competitors in offering a comparable degree designation (B.S.), our infrastructure and vision as a department to increase emphasis on big data and analytics (highly sought-after skills in the advertising marketplace) will further enhance our position in the rankings of top Advertising programs. In-depth interviews were conducted with alumni in senior positions in the field of advertising. They indicated that when hiring new and recent graduates they are looking for basic skills (e.g., writing and math), leadership and management skills, and the ability to facilitate conversations across multiple disciplines. Specifically, they want to hire students who can navigate client relationships and manage projects where, as the advertising manager, they would work with both creative and computer programmers to achieve cohesive strategies and campaigns. Our students tend to gravitate toward Advertising management positions, focusing on new and social media and/or traditional advertising media. For example, the top two choices for possible advertising career options for our current students were: (1) social media manager, and (2) advertising manager.

Converting the two existing concentrations in the current Bachelor of Arts degree in Advertising into two separate degrees is two-fold: (1) it will functionally provide an easier mechanism for creating wholly distinct course requirements for the two programs (different core courses, different numbers of credits, and potentially different entrance requirements in the future); and (2) it will provide a competitive advantage over, and distinction from, other universities with advertising programs. No other program in the United States offers separate degrees in Advertising Management and Advertising Creative.
b. **Academic Programs Catalog Text:**

**ADVERTISING MANAGEMENT**

The Bachelor of Science degree in Advertising Management provides the educational background necessary for students aspiring to become account managers, account planners, media planners, media researchers or a variety of other more managerial-oriented positions. The program focuses on developing students' strategic thinking, along with more research-oriented and analytical skills.

Internships and other cooperative educational opportunities are encouraged in the program. Students may also choose to pursue the departmental minors in Advertising Analytics or Public Relations and a number of other minors including: Entrepreneurship and Innovation, Retail Management, Sales Leadership, or Sports Business Management, which are particularly relevant for Advertising Management majors.

Co-curricular activities include multiple student advertising and public relations clubs, as well as national student competitions. Study abroad programs provide ways for students to gain experience that enhance and reach outside of the classroom, further advancing their employment opportunities upon graduation.

**Admission**

Enrollment in the Advertising Management program is limited. In addition to the university and college requirements, students must complete Advertising 205 and Psychology 101 with a combined minimum grade–point average of 2.00.

**Admission to a Second Bachelor's Degree Program or an Additional Major**

The ability of the Advertising Management program to accommodate students seeking admission to a second bachelor's degree program or an additional major is limited. At a minimum, these students must meet the same requirements for admission to the Advertising Management major.

**Requirements for the Bachelor of Science Degree in Advertising Management**

1. The University requirements for bachelor's degrees as described in the Undergraduate Education section of the catalog; 120 credits, including general elective credits, are required for the Bachelor of Science degree in Advertising Management. The University’s Tier II writing requirement for the Advertising Management major is met by completing Advertising 486. That course is referenced in item 3. a. below.

2. The requirements of the College of Communication Arts and Sciences for the Bachelor of Science degree.

3. The following requirements for the major:

   a. All of the following core courses (31 credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADV 205</td>
<td>Principles of Advertising</td>
<td>3</td>
</tr>
<tr>
<td>ADV 225</td>
<td>Writing for Public Relations</td>
<td>3</td>
</tr>
<tr>
<td>ADV 330</td>
<td>Advertising Management</td>
<td>3</td>
</tr>
<tr>
<td>ADV 342</td>
<td>Account Planning and Research</td>
<td>3</td>
</tr>
<tr>
<td>ADV 350</td>
<td>Advertising Media Planning and Strategy</td>
<td>3</td>
</tr>
<tr>
<td>ADV 375</td>
<td>Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>ADV 413</td>
<td>Issues in Contemporary Advertising</td>
<td>1</td>
</tr>
<tr>
<td>ADV 442</td>
<td>Digital Analytics</td>
<td>3</td>
</tr>
<tr>
<td>ADV 475</td>
<td>Advertising and Society</td>
<td>3</td>
</tr>
<tr>
<td>ADV 486</td>
<td>Integrated Campaigns (W)</td>
<td>3</td>
</tr>
<tr>
<td>CAS 110</td>
<td>Creative Thinking</td>
<td>3</td>
</tr>
</tbody>
</table>

   The completion of Advertising 486 satisfies the capstone/synthesis requirement for the Advertising Management major.

   b. Complete 6 credits from the following courses in consultation with an advisor. Students are encouraged to choose a minor that adds depth to their major while selecting courses that will count towards the minor.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADV 260</td>
<td>Principles of Public Relations</td>
<td>3</td>
</tr>
<tr>
<td>ADV 325</td>
<td>Public Relations Techniques and Ethics</td>
<td>3</td>
</tr>
</tbody>
</table>
PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

ADV 334 International Advertising 3
ADV 352 Media Sales 3
ADV 360 Advanced Sales Communication 3
ADV 386 Campaign Competition 3
ADV 402 Public Relations Topics in Advertising 1 to 3
ADV 420 New Media Driver’s License 3
ADV 425 Public Relations Strategy 3
ADV 430 Social Marketing; Strategy and Practice 3
ADV 431 Monitoring and Measuring Social Media of Brands 3
ADV 432 Digital Media Planning and Buying 3
ADV 433 Internet Video Promotion Strategy 3
ADV 436 Promotions and Sponsorships 3
ADV 445 Programmatic Media and Buying 3
ADV 456 Interactive Advertising Management Strategy 3
ADV 481 Retail Strategy Analysis 3
ADV 492 Special Topics in Advertising 1 to 3
ADV 490 Independent Study 1 to 3
or
ADV 493 Advertising and Public Relations Internship 1 to 3
or
ADV 494 Practicum in Research/Creative Works and Instruction 1 to 3
BUS 190 The Art of Starting 3
CAS 114 Creativity and Innovation Entrepreneurship 3
COM 402 Public Relations Topics in Communication 1 to 3
JRN 402 Public Relations Topics in Journalism 1 to 3
MGT 325 Management Skills and Processes 3

A maximum of 3 credits in ADV 490 or 493 or 494 may be used to fulfill this requirement.

c. All of the following courses (10 credits):
ACC 201 Principles of Financial Accounting 3
or
ACC 230 Survey of Accounting Concepts 3
MKT 327 Introduction to Marketing 3
PSY 101 Introductory Psychology 4

Effective Summer 2017.

4. Establish a Minor in Advertising Analytics in the Department of Advertising and Public Relations. The University Committee on Undergraduate Education (UCUE) recommended approval of this request at its December 1, 2016 meeting.

a. Background Information:

The minor is designed to enable students who are true problem-solvers to find insights and answers in databases and real-time streaming data. In today’s industry, those who not only understand, but also can strategically activate data, will have opportunities to advance more quickly as an advertising account executive, media planner, media sales representative, and more, even moving into the more specialized roles like programmatic advertising specialist or digital advertising analyst.

The advertising and marketing communications industry, including leading client organizations, have been heavily investing in new ad formats relying on social media, mobile media, and programmatic buying, thus elevating the importance of understanding how to navigate the ‘big data’ sphere. This minor will not focus on turning students into computer and programming experts, who can extract, mine, and analyze big data sets. However, the minor will provide students with basic programming skills and tie those skills to dynamic advertising strategy, allowing them to exercise the competitive skills needed in the marketplace. Such skills primarily focus on the role of advertisers to understand and be able to navigate the big data world, yet provide strategic insights and be able to incorporate findings from analytics into evolving strategy and integrated campaign development.
MSU is home to one the top advertising programs in the nation, if not worldwide. The competitive advantage that MSU has is the constant drive to be on the leading edge of innovations in technology, advertising, and marketing. In the past few years, the department has highly emphasized advertising analytics in its strategic vision, in line with the strategic vision of the College of Communication Arts and Sciences. One new-hire will focus in this area and three current faculty members are engaged in advertising analytics in their teaching and/or research programs. Faculty have been at the forefront of academic discussion and curriculum implementation of big data and advertising analytics and have organized preconference sessions dedicated to big data and advertising analytics at national conferences, and integrated big data into their teaching as well as scholarly activities. Additionally, the faculty continue to collaborate with others on campus, specifically in the Department of Media and Information as well as the College of Engineering, Department of Computer Science to enhance its knowledge of innovations in the field of big data mining and analysis.

Students are well aware of the developments in the field. In a survey of current students, computational advertising and big data was ranked fourth in terms of student interest in a field of study as a minor, following public relations, which is already offered, advanced media planning and buying, and entrepreneurship, which MSU at-large offers. The proposal for an advertising analytics minor is a continuation of recent efforts in providing students with the necessary skills to succeed in the marketplace, but also to excel competitively, compared to other programs around the country and the world. Evidence of this is the fact that the second-strongest predictor of the intention to recommend our Advertising major to other students by our recent alumni was their satisfaction in courses focusing on developing analytical skills.

In addition, because of changes in the industry, universities around the country are adding analytics classes related to advertising and public relations and failure on the departments part to embrace this major industry development would put us at a competitive disadvantage. At the same time, by stepping in front of this movement by offering a minor in advertising analytics, the department likely would be seen by industry as being a leader among American universities in this particularly important discipline within the industry.

b. **Academic Programs Catalog Text:**

The Minor in Advertising Analytics, which is administered by the Department of Advertising and Public Relations, is designed to enable students who are true problem-solvers to exercise their intellectual curiosity to find insights and answers in databases and real-time streaming data. In today’s industry, those who not only understand, but also can strategically activate data, will have opportunities to advance more quickly as an advertising account executive, media partner, media sales representative, and more, moving into specialized roles as programmatic advertising specialists or digital advertising analysts.

The minor is available to students who are enrolled in the Advertising Management major at Michigan State University. Limited enrollment may be made available to other majors upon request. With the approval of the department and college that administer the student’s degree program, the courses that are used to satisfy the minor may also be used to satisfy the requirements for the bachelor’s degree.

To be considered for admission, a student must have been formally admitted to the Advertising Management major. Admission to the minor is competitive. Students must be enrolled in or have completed Advertising 350 (Advertising Media Planning and Strategy) and have demonstrated mastery of course content by providing their midterm or final grade in the course. Other admission criteria include overall grade-point average, work experience, and a statement of interest. Each student's application package will be rank ordered. Students may be admitted provisionally contingent on their performance in Advertising 350.

Students who plan to apply to the program should complete an application after the midterm in Advertising 350 and submit it to the Advertising Analytics coordinator in the Department of Advertising and Public Relations.
Requirements for the Minor in Advertising Analytics

Complete 18 credits from the following:

1. All of the following courses (12 credits):
   - ADV 442 Digital Analytics 3
   - ADV 445 Programmatic Media and Buying 3
   - ADV 456 Interactive Advertising Management Strategy 3
   - MI 250 Introduction to Applied Programming 3

2. Complete 6 credits from the following courses:
   - ADV 420 New Media Driver's License 3
   - ADV 431 Monitoring and Measuring Social Media of Brands 3
   - ADV 432 Digital Media Planning and Buying 3
   - ADV 433 Internet Video Promotion Strategy 3
   - MI 220 Methods for Understanding Users 3
   - MI 320 Reasoning with Data 3

Effective Summer 2017.

COLLEGE OF EDUCATION

1. Change the requirements for the Doctor of Philosophy degree in Special Education in the Department of Counseling, Educational Psychology and Special Education. The University Committee on Graduate Studies (UCGS) approved this request at its February 6, 2017 meeting.

   a. Under the heading Admission replace paragraph two and three with the following:

   The applicant is required to submit the university application and applicable application fee.

   Persons are admitted to the program once a year with enrollment starting fall semester only. The deadline for submitting applications is December 1 of each year for admission the following fall semester. If space is available in the program, late applications will be considered.

   b. Under the heading Requirements for the Doctor of Philosophy Degree in Special Education make the following changes:

      (1) In item 1. add the following item c.:

      c. At least one additional course in research methods.

      (2) In item 2. delete the following course:

      CEP 982 Seminar in Counseling, Educational Psychology and Special Education 3

      Add the following course:

      CEP 925 Applied Research in Special Education 3

Effective Summer 2017.
COLLEGE OF ENGINEERING

1. Change the requirements in the Bachelor of Science degree in Civil Engineering in the Department of Civil and Environmental Engineering.

   a. Under the heading Requirements for the Bachelor of Science Degree in Civil Engineering make the following changes:

      (1) In item 3. d. delete the following:

      Technical electives. Complete 18 credits of electives from the list below. At least four courses, totaling a minimum of 12 credits, must be from at least four different areas (environmental, geotechnical, pavements, structures, transportation, and water resources). Additional credits to meet the 18 credit requirement may be taken from the list of courses below, which includes courses in construction management.

      Add the following:

      Design-intensive Electives. Complete 12 credits of electives from the list below in at least four different areas (environmental, geotechnical, pavements, structures, transportation, and water resources).

      (2) In item 3. d. delete the following courses from each of the areas:

      Environmental
      ENE 481 Environmental Chemistry: Equilibrium Concepts 3
      ENE 487 Microbiology for Environmental Science and Engineering 3

      Pavements
      CE 831 Advanced Concrete Pavement Analysis and Design 3
      CE 832 Advanced Asphalt Pavement Analysis and Design 3

      Structures
      CE 805 Advanced Design of Steel Structures 3
      CE 806 Advanced Structural Concrete Design 3

      Transportation
      CE 448 Transportation Planning 3

      Water Resources
      ENE 822 Groundwater Modeling 3
      The additional six credits may include courses from the construction management program courses below or from the above list.
      CE 471 Construction Engineering-Equipment, Methods and Planning 3
      CMP 311 Construction Project Scheduling 3
      CMP 415 Cost Estimating and Analysis 3
      CMP 423 Construction Project Management 3

      (3) Add the following item 3. e.:

      Technical Electives. Complete 6 additional credits in courses not used to fulfill areas above or from the following:
      CE 400 Structural Mechanics 3
      CE 407 Materials Engineering: Properties, Selection and Processing 3
      CE 432 Pavement Rehabilitation 3
      CE 448 Transportation Planning 3
      CE 471 Construction Engineering – Equipment, Methods and Planning 3
      ENE 481 Environmental Chemistry: Equilibrium Concepts 3
      ENE 487 Microbiology for Environmental Science and Engineering 3

Effective Fall 2017.
LYMAN BRIGGS COLLEGE

1. Change the administrative responsibility for the Minor in Bioethics, Humanities and Society in the College of Human Medicine to Lyman Briggs College.

   Effective Fall 2017.

2. Change the name of the Minor in Bioethics, Humanities and Society in Lyman Briggs College to Bioethics.

   Students admitted to the minor prior to Fall 2017 will graduate with a Minor in Bioethics, Humanities and Society.

   Students admitted to the minor Fall 2017 and forward will graduate with a Minor in Bioethics.

   Effective Fall 2017.

3. Change the requirements for the Minor in Bioethics in Lyman Briggs College.

   a. Under the heading Requirements for the Minor in Bioethics replace the entire entry with the following:

      1. Both of the following courses (3 credits):
         LB 240 Bioethics: Theories and Methods 2
         LB 440 Bioethics Capstone 1

      2. Complete 15 credits from at least four courses. No more than 8 credits may be from the same discipline. Students should work with the advisor for appropriate substitution requests.
         ANP 270 Women and Health: Anthropological and International Perspectives 3
         ANP 370 Culture, Health, and Illness 3
         ANP 423 Psychological Anthropology 3
         ANP 425 Issues in Medical Anthropology 3
         ANP 471 The Anthropology of Alternative Medicine 3
         ANS 427 Environmental Toxicology and Society 3
         CEP 470 Disability in a Diverse Society 3
         EC 498 Economics of Health Care (W) 3
         ENG 473A Literature and Medicine 3
         EPI 390 Disease in Society: An Introduction to Epidemiology and Public Health 4
         GEO 435 Geography of Health and Disease 3
         HNF 375 Community Nutrition 3
         HNF 406 Global Foods and Culture 3
         HST 420 History of Sexuality since 18th Century 3
         HST 425 American and European Health Care since 1800 4
         KIN 445 Sport and Physical Activity in Society (W) 3
         LB 324A Science and Sex, Gender, Sexuality – Arts and Humanities (W) 4
         LB 324B Science and Sex, Gender, Sexuality – Social Sciences (W) 4
         LB 326A Medicine and Health – Arts and Humanities (W) 4
         LB 326B Medicine and Health – Social Sciences (W) 4
         LB 355 Philosophy of Technology (W) 4
         MC 351 Science and Social Policy 4
         PHL 344 Ethical Issues in Health Care 4
         PHL 380 Nature of Science 3
         PHL 444 Philosophical Issues in Biomedicine 4
         PHL 480 Philosophy of Science 4
         PHL 485 Philosophy of Social Science 3
         PSY 280 Abnormal Psychology 3
         PSY 320 Health Psychology 3
         REL 385 Religion, Health, and Healthcare 3
         SOC 368 Science, Technology and Society 4
         SOC 451 Dynamics of Population 3
SOC 475    Health and Society    3
SW 472    Social Work in Health Care    3
WS 304    Lesbian, Gay, Bisexual, Transgender, Queer (LBGTQ) and Sexuality Studies    3

Effective Fall 2017.

COLLEGE OF NATURAL SCIENCE

1. Change the requirements for the Minor in Actuarial Science in the Department of Mathematics.
   a. Under the heading Requirements for the Minor in Actuarial Science make the following changes in item 1.:
      (1) Delete the following course:
          FI 379 Advanced Derivatives (D)    3
      Add the following course:
          MTH 361 Financial Mathematics for Actuaries I    3

Effective Fall 2017.

COLLEGE OF SOCIAL SCIENCE

1. Change the Graduation Requirements for the Bachelor of Arts and the Bachelor of Science degrees in the College of Social Science. The University Committee on Undergraduate Education (UCUE) approved this request at its February 9, 2017 meeting.
   a. Under the heading Graduation Requirements for the Bachelor of Arts and Bachelor of Science Degrees in the College of Social Science replace the entire entry with the following:

   To ensure an appropriately broad and well-balanced education, all undergraduates enrolled in the College of Social Science must satisfy the following subject matter and credit requirements, in addition to the graduation requirements of the University as described in the Undergraduate Education section of this catalog.

   The following restrictions pertain to all courses taken in fulfillment of requirements for the Bachelor of Arts and Bachelor of Science degrees in the College of Social Science:

   1. Courses applied to the university requirements in Integrative Studies and Mathematics may not also be counted toward the college graduation requirements.
   2. Unless otherwise noted, no more than two courses offered by a student’s major department or school may be counted toward the college requirements.
   3. Only credits in courses graded on the numerical or Pass-No Grade system may be counted toward college and major requirements, i.e. courses taken in satisfaction of college and major requirements may not be taken on a Credit-No Credit basis.
   4. Not more than 4 credits of independent study, internship, field experience, or practicum courses may be used to fulfill the college requirements for the Bachelor of Arts and Bachelor of Science degrees.
   5. Complete the requirements of a major of no fewer than 30 credits with a minimum 2.0 grade-point average for courses in the major.

All candidates must meet the following requirements:
Bachelor of Arts

A. EXPERIENTIAL LEARNING REQUIREMENT

All students must complete an experiential learning requirement. The experiential learning requirement may be satisfied either within or outside the requirements of the major. The requirement may be met by completing a 3 or 4-credit experiential learning course, approved by the College of Social Science Committee on Curriculum and Academic Policy or its designee. A list of approved courses will be maintained by the College of Social Science. The experiential learning requirement is designed to ensure that each undergraduate student will have the opportunity to enhance problem-solving and integrative reasoning skills through practice outside of the traditional classroom learning environment. Study abroad and study away experiences, internships, service learning and civic engagement experiences, undergraduate research, including, in appropriate cases, honors theses, and entrepreneurship experiences can meet this requirement. The requirement may also be met through a non-credit experience, for example, an undergraduate research experience mentored by a faculty member, if approved in advance by the College of Social Science Committee on Curriculum and Academic Policy or its designee. For further information, consult the Office of Student Affairs in the College of Social Science or an academic advisor in a department or school.

B. INTERDISCIPLINARY MINOR REQUIREMENT

Complete a minimum of 15 credits in one Interdisciplinary Minor from a list of minors approved by the College of Social Science Committee on Curriculum and Academic Policy. Minors approved for this requirement include: African Studies; Asian Studies; The City: Environment, Design and Society; Law, Justice, and Public Policy; Leadership of Organizations; Human Behavior and Social Services; Youth and Society. Other interdisciplinary minors can meet this requirement if approved by the College of Social Science Committee on Curriculum and Academic Policy or its designee. For further information, consult the Office of Student Affairs in the College of Social Science or an academic advisor in a department or school.

C. SCIENCE, TECHNOLOGY, ENGINEERING, MATHEMATICS REQUIREMENT

Complete a minimum of 6 credits in Science, Technology, Engineering, and Mathematics courses from a list of courses approved and maintained by the College of Social Science Committee on Curriculum and Academic Policy. Most courses offered in the College of Natural Science and the College of Engineering count toward this requirement. Other courses approved by the College of Social Science Committee on Curriculum and Academic Policy can meet this requirement. For further information, consult the Office of Student Affairs in the College of Social Science or an academic advisor in a department or school. A department or school may require its majors to complete specific courses or particular subject matter areas to satisfy this requirement. The requirement may be satisfied either within or outside the requirements of the major or within the interdisciplinary minor. Mathematics 1825, 100E, and 290 may not apply to this requirement for the Bachelor of Arts degree.

D. DISTRIBUTION REQUIREMENTS

1. Complete a minimum of 30 credits in courses numbered at the 300 level and above. Courses offered by the student’s major department or school may be used to satisfy this requirement.
2. A maximum of 12 credits of independent study may be applied to the degree.
3. A maximum of 12 credits of internship, field experience, or practicum credits may be applied to the degree.
4. The total of independent study, internship, field experience, and practicum credits applied to the degree may not exceed 20 credits.
Bachelor of Science

A. EXPERIENTIAL LEARNING REQUIREMENT

All students must complete an experiential learning requirement. The experiential learning requirement may be satisfied either within or outside the requirements of the major. The requirement may be met by completing a 3 or 4-credit experiential learning course, approved by the College of Social Science Committee on Curriculum and Academic Policy or its designee. A list of approved courses will be maintained by the College of Social Science. The experiential learning requirement is designed to ensure that each undergraduate student will have the opportunity to enhance problem-solving and integrative reasoning skills through practice outside of the traditional classroom learning environment. Study abroad and study away experiences, internships, service learning and civic engagement experiences, undergraduate research, including, in appropriate cases, honors theses, and entrepreneurship experiences can meet this requirement. The requirement may also be met through a non-credit experience, for example, an undergraduate research experience mentored by a faculty member, if approved in advance by the College of Social Science Committee on Curriculum and Academic Policy or its designee. For further information, consult the Office of Student Affairs in the College of Social Science or an academic advisor in a department or school.

B. INTERDISCIPLINARY MINOR REQUIREMENT

Complete a minimum of 15 credits in one Interdisciplinary Minor from a list of minors approved by the College of Social Science Committee on Curriculum and Academic Policy. Minors approved for this requirement include: African Studies; Asian Studies; The City: Environment, Design and Society; Law, Justice, and Public Policy; Leadership of Organizations; Human Behavior and Social Services; Youth and Society. Other interdisciplinary minors can meet this requirement if approved by the College of Social Science Committee on Curriculum and Academic Policy or its designee. For further information, consult the Office of Student Affairs in the College of Social Science or an academic advisor in a department or school.

C. SCIENCE, TECHNOLOGY, ENGINEERING, MATHEMATICS REQUIREMENT

Complete a minimum of 12 credits in Science, Technology, Engineering, and Mathematics courses from a list of courses approved and maintained by the College of Social Science Committee on Curriculum and Academic Policy. Most courses offered in the College of Natural Science and the College of Engineering count toward this requirement. Other courses approved by the College of Social Science Committee on Curriculum and Academic Policy can meet this requirement. For further information, consult the Office of Student Affairs in the College of Social Science or an academic advisor in a department or school. A department or school may require its majors to complete more than 12 credits to satisfy this requirement. The requirement may be satisfied either within or outside the requirements of the major or within the interdisciplinary minor. Mathematics 1825, 100E, and 290 may not apply to this requirement for the Bachelor of Science degree.

D. ARTS AND HUMANITIES REQUIREMENT

Complete a minimum of 6 credits in Arts and Humanities from a list of courses approved by the College of Social Science Committee on Curriculum and Academic Policy. Most courses offered in the College of Arts and Letters count toward this requirement. Other courses approved by the College of Social Science Committee on Curriculum and Academic Policy can meet this requirement. A list of approved courses is maintained by the College of Social Science. For further information, consult the Office of Student Affairs in the College of Social Science or an academic advisor in a department or school. A department or school may require its majors to complete specific courses or particular subject matter areas to satisfy this requirement. The requirement may be satisfied either within or outside the requirements of the major or within the interdisciplinary minor.
E. DISTRIBUTION REQUIREMENTS

1. Complete a minimum of 30 credits in courses numbered at the 300 level and above. Courses offered by the student’s major department or school may be used to satisfy this requirement.

2. A maximum of 12 credits of independent study may be applied to the degree.

3. A maximum of 12 credits of internship, field experience, or practicum credits may be applied to the degree.

4. The total of independent study, internship, field experience, and practicum credits applied to the degree may not exceed 20 credits.

Effective Fall 2017.

2. Change the requirements for the Doctor of Philosophy degree in Criminal Justice in the School of Criminal Justice. The University Committee on Graduate Studies (UCGS) approved this request at its February 6, 2017 meeting.

   a. Under the heading Requirements for the Doctor of Philosophy Degree in Criminal Justice make the following changes:

      (1) Replace item 1. with the following:

          Completion of 24 credits in Criminal Justice 901, 904, 906, 907, 908, and 909.

      (2) Add the following item 2.:

          Students admitted directly from an undergraduate degree program must take Criminal Justice 811 and 887 as prerequisites to Criminal Justice 906, 907, and 909. Criminal Justice 811 and 887 may not be counted toward doctoral program requirements.

      (3) Renumber items 2., 3., 4., and 5. as items 3., 4., 5., and 6. respectively.

      (4) Change the credits of item 2. from ‘12’ to ‘6’.

      (5) Replace the statement following item 6. with the following:

          Normally students complete the requirements for the Doctor of Philosophy degree in four years.

   Effective Fall 2017.

3. Change the requirements for the Bachelor of Arts degree in Sociology.

   a. Under the heading Requirements for the Bachelor of Arts Degree in Sociology make the following changes:

      (1) In item 3. a. delete the following course:

          SOC 241 Social Psychology 3

          Add the following course:

          SOC 214 Social Inequality 3

      (2) In item 3. b. delete the following course:

          SOC 330 Social Stratification 3
(3) Add the following item 4.:  

Complete a 1 credit experiential learning experience through one of the following options, approved by the student’s academic adviser:  

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 496</td>
<td>Individual Readings (Study Abroad)</td>
<td>1</td>
</tr>
<tr>
<td>SOC 496</td>
<td>Individual Readings (Study Away)</td>
<td>1</td>
</tr>
<tr>
<td>SOC 497</td>
<td>Individual Research</td>
<td>1</td>
</tr>
<tr>
<td>SOC 498</td>
<td>Sociology Internship</td>
<td>1</td>
</tr>
</tbody>
</table>

Effective Fall 2017.
PART II - NEW COURSES

DEPARTMENT OF ADVERTISING AND PUBLIC RELATIONS

ADV 210  Concept Development
Fall of every year. Spring of every year. 1(1-0) P: CAS 110 or concurrently R: Open to students in the Advertising Creative major.
Forming visual ideas with a strong narrative. Conceptualizing solutions that meet strategic advertising objectives from idea generation to the final application, regardless of media type.
Effective Summer 2017

ADV 222  Introduction to Copywriting
Fall of every year. 3(2-2) P: (ADV 205 and (ADV 210 or concurrently)) and completion of Tier I writing requirement R: Open to students in the Advertising Creative major or approval of department.
Role of copywriting in the creative process. Iconic advertising campaigns with copywriting emphasis. Practice in writing copy with critique and rewriting. Focus on writing for print media.
Effective Summer 2017

ADV 245  Multimedia Commercial Production
Fall of every year. Spring of every year. 3(2-2) P: (ADV 222 or ADV 224) and CAS 112 R: Open to students in the Advertising Creative major.
Cinematography applied to 15-, 30- and 60-second spots for TV, desktop and handheld devices. The power of story telling in the production of screen-based creative advertising solutions including motion graphics and animation. Planning, writing, casting, filming, editing, sound, lighting, and evaluation.
Effective Summer 2017

ADV 442  Digital Analytics
Fall of every year. Spring of every year. 3(3-0) P: ADV 342 or concurrently RB: (STT 201) or other introductory statistics course R: Open to students in the Department of Advertising and Public Relations.
Data collection, analysis and reporting on cross- or multi-channel media analytics in order to inform strategic advertising and public relations decision making. Evaluate impact of integrated communication decisions.
Effective Fall 2016

ADV 445  Programmatic Media Buying
Fall of every year. Spring of every year. 3(3-0) P: ADV 350 R: Open to students in the Department of Advertising and Public Relations.
Background, processes, and applications of how online advertising and public relations campaigns are planned, booked, optimized, and validated using programmatic tools. Developments and trends in programmatic advertising platform tests and entries into mainstream media channels. Targeted offers, messages, content or ads across paid, owned and earned channels.
Effective Summer 2017

COLLEGE OF ARTS AND LETTERS

AL 290  Arts and Letters Service Learning
Fall of every year. Spring of every year. Summer of every year. 2 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P: Completion of Tier I Writing Requirement R: Not open to freshmen. Approval of department. A student may earn a maximum of 12 credits combined between AL 290 and AL 493A, and AL 493B.
Supervised community-engaged service and/or field experience and reflection.
Effective Fall 2017
DEPARTMENT OF COMMUNITY SUSTAINABILITY

CSUS 222A  Seminar in Instructional Theory I – Agriculture, Food and Natural Resources Education
Fall of every year. 1(1-0) R: Open to undergraduate students.
Professional involvement and introductory instructional theory in formal and non formal agriculture, food and natural resources education. Requires 10 hours of observation in a K-12 Ag, Food, and Natural Resource Education (AFNRE) classroom.
Effective Fall 2017

CSUS 222B  Seminar in Instructional Theory II – Agriculture, Food and Natural Resources Education
Fall of every year. 1(1-0) P: CSUS 222A
Principles of experiential learning theory in formal and nonformal agriculture, food and natural resources education. Requires 10 hours of observation in a K-12 Ag, Food, and Natural Resource Education (AFNRE) classroom.
Effective Fall 2017

CSUS 222C  Seminar in Instructional Theory III – Agriculture, Food and Natural Resources Education
Fall of every year. 1(1-0) P: CSUS 222B
Application of problem-based learning theory in formal and nonformal agriculture, food and natural resources education. Requires 10 hours of observation in a K-12 Ag, Food, and Natural Resource Educational (AFNRE) classroom.
Effective Fall 2017

CSUS 223A  Seminar in Leadership Theory I – Agriculture, Food and Natural Resources Education
Spring of every year. 1(1-0)
Introductory leadership theory in formal and nonformal agriculture, food and natural resources education.
Effective Spring 2018

CSUS 223B  Seminar in Leadership Theory II – Agriculture, Food and Natural Resources Education
Spring of every year. 1(1-0) P: CSUS 223A
Practical applications of leadership theory in agriculture, food and natural resources education within Michigan communities.
Effective Spring 2018

CSUS 223C  Seminar in Leadership Theory III – Agriculture, Food and Natural Resources Education
Spring of every year. 1(1-0) P: CSUS 223B
Applied mentoring and leadership evaluation in formal and nonformal agriculture, food, and natural resources education.
Effective Spring 2018

DEPARTMENT OF COUNSELING, EDUCATIONAL PSYCHOLOGY AND SPECIAL EDUCATION

CEP 925  Applied Research in Special Education
Spring of odd years. 3(3-0) A student may earn a maximum of 3 credits in all enrollments for this course. P: CEP 900 and CEP 930 and CEP 932 R: Open to doctoral students in the Special Education Major.
Research design and statistical methods for special education research in laboratory and field settings.
Effective Spring 2017

SCHOOL OF CRIMINAL JUSTICE

CJ 905  Law and Society
Fall of every year. 3(3-0) R: Open only to doctoral students in the School of Criminal Justice.
REINSTATEMENT Theoretical perspectives on law. Impact of law on society and the criminal justice system.
Effective Fall 2016
PART II – NEW COURSES

DEPARTMENT OF EARTH AND ENVIRONMENTAL SCIENCES

GLG 864 Mineral and Rock Physics
Spring of even years. 4(3-2) P: GLG 321 RB: GLG 401 and MTH 235 and MTH 309
Physical properties of rocks and minerals fundamental to understanding the structure and dynamics of the Earth and other planets for behavior, including elasticity, rheology, and thermal and electrical transport; theory, experimental measurement, and application to geophysical problems.
Effective Spring 2017

DEPARTMENT OF FINANCE

FI 380 Principles of Insurance and Risk Management
Fall of every year. 3(3-0) P: (FI 311 or FI 320) and (STT 315 or STT 351 or STT 421 or STT 441) RB: Calculus is recommended but not required. R: Approval of department.
Overview of techniques for measuring and managing risk. Pure risks related to mortality, health-related expenses, property damage, and product liability. Management techniques studied include risk assumption, prevention, diversification, and transfer via insurance and non-insurance market mechanisms.
Effective Fall 2017

FI 480 Financial Risk Management
Spring of every year. 3(3-0) P: (FI 311 or FI 320) and (STT 315 or STT 351 or STT 421 or STT 441) RB: Calculus is recommended but not required. R: Open to undergraduate students. Approval of department.
Ways in which risks are quantified and managed by financial institutions. Nature of financial institutions and their regulation, the Basel Accords, coherent risk measures, value at risk, copulas, credit risk, operational risk, liquidity risk, and the financial crisis of 2007.
Effective Spring 2018

FI 481 Crises, Insurance, and Risk Management
Fall of every year. 3(3-0) P: (FI 311 or FI 320) and (STT 315 or STT 351 or STT 421 or STT 441) R: Open to undergraduate students. Approval of department.
Various crises, including financial crises, and natural and man-made disasters. Repercussion of such crises on financial-industry and insurance regulations on the structures of the financial and insurance industries and on the products offered and on the pricing of these products.
Effective Fall 2018

DEPARTMENT OF FOOD SCIENCE AND HUMAN NUTRITION

HNF 250L Professional Development and Career Planning in Nutrition
Fall of every year. Spring of every year. 1(0-2) P: HNF 250 or concurrently R: Open to students in the Nutritional Sciences Major and open to students in the Lyman Briggs Nutritional Sciences Coordinate Major.
Experiential learning and career opportunities in nutrition. Skills for professional and career development.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Spring 2017
**LYMAN BRIGGS COLLEGE**

**LB 240  Bioethics: Theories and Methods**  
Fall of every year. Summer of every year. 2(2-0) RB: Completion of Tier I Writing Requirement  
Interdisciplinary survey of key theories and methods in bioethics. Topics include aging, cultural diversity, and health care policy.  
Effective Summer 2017

**LB 440  Bioethics Capstone**  
Fall of every year. Spring of every year. 1(1-0) P: LB 240 RB: Completion of 9 credits in the bioethics minor. R: Open to juniors or seniors in the Bioethics, Humanities, and Society Minor. Selective topics in bioethics. Analysis of key issues and problems. Case studies.  
Effective Fall 2017

**COLLEGE OF MUSIC**

**MUS 868  Topics in Music Analysis**  
On Demand. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. R: Open to graduate students in the College of Music. Methods of analysis pertinent to a specific set of musical repertoire.  
Effective Fall 2017

**MUS 979  Proseminar in Music Theory**  
On Demand. 2(2-0) R: Open to graduate students in the College of Music. Survey of current research areas and publications in the music-theoretic discipline.  
Effective Fall 2017

**DEPARTMENT OF PHARMACOLOGY AND TOXICOLOGY**

**PHM 803  Chemical Disposition in Mammals**  
Fall of every year. 1(1-0) R: Open to doctoral students. Approval of department. Not open to students with credit in PHM 801 or PHM 819. Principles of drug/toxicant absorption, distribution, metabolism, elimination, and kinetics in mammalian systems.  
Effective Fall 2017

**DEPARTMENT OF PHYSICS AND ASTRONOMY**

**PHY 241  Physics for Cellular and Molecular Biologists I**  
Fall of every year. 4(4-0) P: (MTH 124 or concurrently) or (MTH 132 or concurrently) or (MTH 152H or concurrently) or (LB 118 or concurrently) RB: CEM 141 and BS 161 R: Not open to students in the College of Engineering or in the Department of Physics and Astronomy. Not open to students with credit in LB 273 or PHY 183 or PHY 183B or PHY 193H or PHY 231 or PHY 231C or PHY 233B. Physics of cellular and molecular biology. Examples will be drawn from systems such as bacterial flagella, myosin and protein folding.  
Effective Fall 2017

**PHY 242  Physics for Cellular and Molecular Biologists II**  
Spring of every year. 4(4-0) P: (PHY 241) RB: CEM 141 and BS 161 R: Not open to students in the College of Engineering or in the Department of Physics and Astronomy. Not open to students with credit in PHY 184 or PHY 184B or PHY 294H or PHY 232 or PHY 232C or PHY 234B or LB 274. Physics of cellular and molecular biology. Examples will be drawn from systems such as ATPase and photosynthesis.  
Effective Spring 2018
DEPARTMENT OF THEATRE

THR 441  Advanced Play Directing
Fall of every year. Spring of every year. 3(2-2) P: THR 341 R: Open to juniors or seniors in the Department of Theatre.
REINSTATEMENT  Advanced directing skills, theories, and techniques applied to the non-realistic play. Works selected from Shakespeare, the musical theatre, and other non-realistic forms used as practicum.
Effective Spring 2017

THR 466  Advanced Stage Management
Fall of odd years. Spring of even years. 3(2-2) A student may earn a maximum of 6 credits in all enrollments for this course. P: THR 316
Advanced methodologies and principles of stage management. Practical application through the execution of show-calling, tracking, and the development of portfolio/production materials.
Effective Fall 2017

THR 467  Production Management
Fall of even years. Spring of odd years. 3(2-2) A student may earn a maximum of 6 credits in all enrollments for this course. P: THR 111 and THR 111L RB: THR 316
Advanced methodologies and principles of production management. Practical application through the development of production materials.
Effective Fall 2017

THR 818  Design Studio
Fall of every year. 3(2-2) A student may earn a maximum of 18 credits in all enrollments for this course. R: Open to graduate students in the Department of Theatre.
Methodologies and principles of varying design styles and periods. Practical application through area specified design. Application to selected dramatic texts.
Effective Fall 2017

THR 819  Applied Design Studio
Fall of every year. 1 to 3 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open to graduate students in the Department of Theatre.
Standards and best practices of communicating varying design styles. Practical application and concentrated study of important and/or new topics in theatrical design and technology.
Effective Fall 2017

OFFICE OF THE PROVOST

UGS 110  People, Places, and Purpose
Fall of every year. Spring of every year. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. R: Open to freshmen. A student may earn a maximum of 6 credits UGS 101, 102, 103, and 110 or any combination of these courses.
Developing effective intercultural and interpersonal skills, analytical and critical thinking in the university experience, identifying campus resources, and determining one's academic and professional goals.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Fall 2017
PART III – COURSE CHANGES

DEPARTMENT OF ADVERTISING AND PUBLIC RELATIONS

ADV 324
Introduction to Creative Media
Fall of every year, Spring of every year, Summer of every year. 3(2-2) P: ADV 205 and CAS 203 and CAS 206 and CAS 208
P: ADV 205 and (ADV 210 or concurrently) R: Open to undergraduate students in the Department of Advertising and Public Relations or in the Design Specialization. R: Open to students in the Advertising Creative major.

Application of creative principles used in thinking, research, exploration, and execution by art directors. Advertising problems across media, with an emphasis on visual solutions for print. Communication design principles used by art directors for research, exploration, and execution. Visual communication solutions using design principles with the appropriate digital technology. Design software includes Adobe CC Illustrator, Photoshop and Indesign.
SA: ADV 321
Effective Fall 2014 Effective Summer 2017

ADV 322
Copywriting and Art Direction
360-degree Copywriting
Fall of every year, Spring of every year, Summer of every year. 3(2-2) P: ADV 205 and CAS 110 and completion of Tier I writing requirement P: ADV 222 and (ADV 245 or concurrently) R: Open to undergraduate students in the Department of Advertising and Public Relations or in the Design Specialization. R: Open to students in the Advertising Creative major.

Creative process used by writers and art directors to develop ads and multi-media campaigns. Emphasis on writing. Writing across multiple channels. Focus on traditional media including television, print, out-of-home, and radio. Focus on non-traditional media including digital and social media.
Effective Fall 2014 Effective Summer 2017

ADV 325
Public Relations Techniques and Ethics
Fall of every year. Spring of every year. 3(3-0) P: COM 300 or STT 200 P: COM 300 or STT 200 or STT 201 R: Open to undergraduate students in the Public Relations Specialization. R: Open to undergraduate students in the Public Relations Minor.

Production of written messages to achieve strategic organizational communication objectives. Development of the student’s public relations portfolio. Public relations as a strategic management function.
Effective Fall 2014 Effective Summer 2017

ADV 326
Advanced Creative: Media I
Fall of every year, Spring of every year, Summer of every year. 3(0-6) P: ADV 324 and CAS 204 P: ADV 224 and (ADV 245 or concurrently) R: Open to undergraduate students in the Department of Advertising and Public Relations or in the Design Specialization. R: Open to students in the Advertising Creative major.

Applications of creative media to advertising. Design principles that enable art directors to organize information on page or screen to communicate the client’s message clearly and imaginatively.
SA: ADV 426
Effective Fall 2014 Effective Summer 2017

ADV 330
Advertising Management
Advertising Management Strategy
Fall of every year. Spring of every year. 3(3-0) P: ADV 205 R: Open to sophomores or juniors or seniors in the Advertising Major. R: Open to undergraduate students in the Department of Advertising and Public Relations.

Advertising problems from the perspective of managers responsible for solving problems. Identify problems, develop alternative solutions, and evaluate proposed solutions. Advertising problems from the perspective of managers responsible for solving problems. Identify problems, develop alternative solutions, implement effective strategies, and evaluate proposed solutions.
Effective Fall 2014 Effective Summer 2017
PART III – COURSE CHANGES

ADV 352  Media Sales
Fall of every year. Spring of every year. 3(3-0) P: ADV 205 or MKT 313 P: ADV 205 R: Open to undergraduate students in the Advertising Major or in the Sales Communication Specialization. R: Open to undergraduate students in the Department of Advertising and Public Relations.
Process of media sales, operation of sales and marketing departments, analyzing local media, and customized advertising using cross-selling.
Effective Fall 2014 Effective Summer 2017

ADV 354  Interactive Advertising Design
Fall of every year. Spring of every year. Summer of every year. 3(2-2) P: ADV 324 and CAS 204 P: ADV 224 R: Open to undergraduate students in the Department of Advertising and Public Relations or in the Design Specialization. R: Open to students in the Advertising Creative major.
Conceptual, aesthetic, and technical skills required to design interactive advertising from web to social media. Emphasis on creative solutions to problems encountered in designing for screen-based devices. Build interactive websites that are adaptable to any screen size. Apply concepts like information architecture, the grid system, and web design principles when developing websites.
Effective Fall 2014 Effective Summer 2017

ADV 413  Issues in Contemporary Advertising
Fall of every year. Spring of every year. Summer of every year. 1 to 3 credits. A student may earn a maximum of 9 credits in all enrollments for this course.
Current issues in advertising and related disciplines.
Request the use of the Pass-No Grade (P-N) system.
Effective Fall 2014 Effective Spring 2017

ADV 422  Advanced Copywriting
Advanced Copywriting: Creating Experiences
Fall of every year. Spring of every year. 3(3-0) 3(2-2) P: ADV 322 or approval of department R: Open to undergraduate students in the Department of Advertising and Public Relations or approval of department R: Open to students in the Advertising Creative major or approval of department.
Continued development of aesthetic and technical copywriting skills to develop ads and multi-media campaigns that solve advertising problems; emphasis on ideation and self-critiquing. Continued development of aesthetic and technical copywriting skills to develop ads and multi-media campaigns that solve advertising problems; emphasis on creating relevant audience experiences and self-critiquing.
Effective Fall 2014 Effective Spring 2017

ADV 425  Public Relations Strategy
Fall of every year. Spring of every year. 3(3-0) P: COM 300 or STT 200 P: COM 300 or STT 200 or STT 201 R: Open to undergraduate students in the Public Relations Specialization. R: Open to undergraduate students in the Public Relations Minor.
Classic and current public relations cases. Strategies to communicate in business contexts. Exposure to specific business problems and their solutions.
Effective Fall 2014 Effective Fall 2017

ADV 428  Advanced Creative: Media II
Fall of every year. Spring of every year. 3(0-6) 3(2-2) P: ADV 326 and ADV 354 R: Open to undergraduate students in the Department of Advertising and Public Relations or in the Design Specialization. R: Open to students in the Advertising Creative major.
Creative execution skills to explore the power of branding. Visual solutions that reinforce the brand experience through ads, campaigns, and collateral material. Creative research, strategy development.
SA: ADV 417
Effective Fall 2014 Effective Summer 2017
ADV 431  Monitoring and Measuring Social Media of Brands
Fall of every year. Spring of every year. 3(3-0) P: ADV 420 R: Open to students in the Department of Advertising and Public Relations. P: Open to students in the Department of Advertising and Public Relations or in the Sports Business Management Minor.
Social media monitoring and analysis for businesses and brands including advanced keyword building and search techniques. Discovering business insights through social media listening and applying insights through a social media response plan.
Effective Fall 2014 Effective Fall 2017

ADV 450  Portfolio Preparation
Portfolio Presentation
Fall of every year. Spring of every year. 2(0-6) 1(0-2) A student may earn a maximum of 3 credits in all enrollments for this course. P: ADV 428 P: ADV 422 or ADV 428 R: Approval of department; application required. R: Open to students in the Advertising Creative major.
Editing past work and developing new projects. Strengthening, expanding, and finalizing individual portfolios for career enhancement. Critique by professionals. Editing past work for professional presentation. Strengthening, expanding, and finalizing individual portfolios for career enhancement. Critique by professionals.
Effective Fall 2014 Effective Summer 2017

ADV 456  Interactive Advertising Management
Interactive Advertising Management Strategy
Fall of every year. Spring of every year. 3(3-0) P: ADV 330 or ADV 350 R: Open to students in the Department of Advertising, Public Relations and Retailing. R: Open to students in the Department of Advertising and Public Relations.
Theory and practice of interactive advertising, e-commerce, Internet advertising, online sales promotion, online public relations, virtual communities, and Internet research. Role of strategy in implementing interactive solutions.
Effective Fall 2014 Effective Summer 2017

ADV 475  Advertising and Society
Fall of every year. Spring of every year. 3(3-0) P: ADV 205 P: ADV 330 or ADV 350 R: Open to undergraduate students in the Advertising major. R: Open to undergraduate students in the Department of Advertising and Public Relations.
Impact of advertising on society, culture and economy. Representation of minorities, women, and the elderly in advertising; free speech, advertising law, and regulatory organizations; ethical decision making strategies; and advertising's economic role in information, competition, price, and product choice.
SA: ADV 465
Effective Fall 2014 Effective Summer 2017

ADV 481  Retail Strategy Analysis
Fall of every year. Spring of every year. 3(3-0) P: MKT 300 or MKT 313 or MKT 327 RB: Knowledge of income and balance sheet financial statements is important R: Open to undergraduate students in the Department of Advertising and Public Relations or in the Sales Communication Specialization or approval of department. R: Open to undergraduate students in the Department of Advertising and Public Relations or in the Sales Leadership Minor or in the Retail Management Minor or approval of department.
Strategic and financial planning for retailers.
SA: HED 481, RET 481
Effective Fall 2014 Effective Spring 2017
ADV 486  
**Integrated Campaigns**  
Integrated Campaigns (W)  
Fall of every year. Spring of every year. Summer of every year. 3(2-2) P: (CAS 110 and ADV 330 and ADV 342 and ADV 350) or ADV 325 P: (CAS 110 and ADV 342) and (ADV 330 or ADV 350) and (ADV 442 or concurrently) or (ADV 450 or concurrently)) or (ADV 325 and completion of Tier I writing requirement) R: Open to undergraduate students in the Department of Advertising and Public Relations or in the Public Relations Specialization. R: Open to undergraduate students in the Department of Advertising and Public Relations or in the Public Relations Minor.  
Development of integrated marketing and advertising campaigns for clients. Creative, media and marketing communication elements.  
Request the use of ET-Extension to postpone grading.  
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.  
**Effective Fall 2014**  
**Effective Summer 2017**

### COLLEGE OF ARTS AND LETTERS

**AL 202**  
Introduction to American Indian and Indigenous Studies  
Spring of every year. 3(3-0)  
Introduction to the study of American Indian and other Indigenous peoples, including issues related to culture, knowledge, language, governance, colonization, sovereignty, and ongoing revitalization efforts.  
SA: AL 202  
**Effective Spring 2017**  
**Effective Fall 2017**

### DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

**CE 273**  
Civil and Environmental Engineering Measurements  
Fall of every year. Spring of every year. 2(1-3) P: ((MTH 132 or concurrently) or (MTH 152H or concurrently) or (LB 118 or concurrently)) and (EGR 102 or concurrently)  
Measurements, surveying and error analysis with applications to civil and environmental engineering problems  
SA: CE 271  
**Effective Fall 2016**  
**Effective Fall 2017**

**CE 274**  
Graphics for Civil and Environmental Engineers  
Fall of every year. Spring of every year. 1(1-3) P: ((MTH 132 or concurrently) or (MTH 152H or concurrently) or (LB 118 or concurrently)) and (EGR 100 or concurrently)  
Basic operations in CAD software with applications in civil and environmental engineering  
SA: CE 272  
**Effective Fall 2016**  
**Effective Fall 2017**

**CE 337**  
Civil Engineering Materials I  
Civil Engineering Materials  
Fall of every year. Spring of every year. 4(3-3) P: (ME 222 or concurrently) and (CE 273 or concurrently) and (CE 274 or concurrently) R: Open to juniors or seniors in the Department of Civil and Environmental Engineering.  
Common civil engineering construction and paving materials: aggregates, inorganic cements, asphalts, concretes, wood, and steel. Composition, structure, physical and mechanical properties, tests, and production mix design.  
**Effective Fall 2016**  
**Effective Fall 2017**

**CE 371**  
Sustainable Civil and Environmental Engineering Systems  
Fall of every year. Spring of every year. 3(3-0) P: ((MTH 234 or concurrently) or (LB 220 or concurrently) or (MTH 254H or concurrently)) and (EGR 102 and ENE 280) P: (MTH 234 or concurrently) or (LB 220 or concurrently) or (MTH 254H or concurrently)) and ENE 280 R: Open to juniors or seniors in the Civil Engineering Major or in the Environmental Engineering Major.  
Principles and tools of sustainable design and engineering economics in Civil and Environmental Engineering.  
SA: CE 272  
**Effective Fall 2016**  
**Effective Fall 2017**
PART III – COURSE CHANGES

CE 372  Risk Analysis in Civil and Environmental Engineering
Fall of every year. Spring of every year. 2(2-0) P: ((MTH 234 or concurrently) or (LB 220 or concurrently) or (MTH 254H or concurrently)) and EGR 102 P: (MTH 234 or concurrently) or (LB 220 or concurrently) or (MTH 254H or concurrently) R: Open to juniors in the Civil Engineering Major or in the Environmental Engineering Major and open to seniors in the Civil Engineering Major or in the Environmental Engineering Major.
Applications of probability, statistics, uncertainty and risk analysis to topics in civil and environmental engineering, characterization of system safety, and comparison tests for engineering quality control and environmental analyses.
SA: CE 272
Effective Fall 2016 Effective Fall 2017

CE 431  Pavement Design and Analysis I
Pavement Design and Analysis
Fall of every year. 3(3-0) P: CE 337 R: Open to juniors or seniors or graduate students in the College of Engineering.
Effective Fall 2013 Effective Fall 2017

CE 432  Pavement Rehabilitation
Spring of every year. Spring of odd years. 3(3-0) P: CE 337 RB: CE 431 R: Open to seniors or graduate students in the College of Engineering.
Engineering concepts and information needed to rehabilitate pavements. Network and project survey and evaluation: design of rigid and flexible overlays, other methods of rehabilitation, selection of rehabilitation alternatives. Initial and life cycle cost analysis of various rehabilitation alternatives.
Effective Spring 2014 Effective Fall 2017

CE 495  Senior Design in Civil and Environmental Engineering
Fall of every year. Spring of every year. 4(2-3) P: (CE 274 and CE 371 and CE 372) and (ENE 421 or ENE 422 or ENE 483 or ENE 489 or CE 418 or CE 431 or CE 405 or CE 406 or CE 444 or CE 449) and (ENE 421 or ENE 422 or ENE 483 or ENE 489 or CE 405 or CE 406 or CE 418 or CE 431 or CE 444 or CE 449) and (ENE 421 or ENE 422 or ENE 483 or ENE 489 or CE 405 or CE 406 or CE 418 or CE 431 or CE 444 or CE 449) R: Open to seniors in the Civil Engineering Major or in the Environmental Engineering Major. Approval of department. R: Open to seniors in the Civil Engineering Major or in the Environmental Engineering Major.
Effective Fall 2016 Effective Fall 2017

ENE 483  Water and Wastewater Engineering
Fall of every year. 2(2-1) 3(3-1) Interdepartmental with Civil Engineering. P: (ENE 280 or BE 230) and (CE 321 or CHE 311) R: Open to juniors or seniors or graduate students in the College of Engineering.
Engineering and scientific basis and design of physical, chemical and biological methods for the treatment of drinking water and wastewater. Operation process selection and design.
Effective Fall 2016 Effective Fall 2017
DEPARTMENT OF ENGLISH

ENG 801  Introduction to Graduate Studies
Fall of every year. 3(3-0) R: Open to graduate students in the College of Arts and Letters or approval of department.
Critical reading and writing in the environment of the research university. Archival resources for professional research. Preparation for teaching, conferencing, and publication.
DELETE COURSE
Effective Fall 2017

ENG 802  Literary Criticism and Theory
Spring of every year. 3(3-0) A student may earn a maximum of 18 credits in all enrollments for this course. R: ENG 801 R: Open to graduate students in the College of Arts and Letters or approval of department.
Critical thinking from Plato and Aristotle to postmodern theory. Deep contexts of current critical practice.
Effective Fall 2008 Effective Fall 2017

ENG 820  Emphasis Area Seminar
Fall of every year. Spring of every year. 3(3-0) 1(1-0) A student may earn a maximum of 18 credits in all enrollments for this course. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open to graduate students in the Department of English or approval of department.
Seminar constructed around the doctoral emphases that focuses on a specific critical problem. Seminar constructed around the doctoral emphases that focuses on a specific critical problem resulting in significant preparation for the comprehensive examination. Request the use of the Pass-No Grade (P-N) system. Request the use of ET-Extension to postpone grading. The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Fall 2008 Effective Fall 2017

FLM 335  Film Directing
Fall of every year. 3(3-1) Interdepartmental with Media and Information. P: (FLM 230 or concurrently) and (CAS 112 or concurrently) R: Open to undergraduate students in the Fiction Filmmaking Minor.
Concepts and techniques for directing in styles most associated with the art of film. Studies of innovative film directors. Skills of film directing, including script and shot breakdown. Directing actors and crew. Directing on location.
SA: ENG 335
Effective Summer 2016 Effective Spring 2017

FLM 435A  Creating the Fiction Film I
Fall of every year. 3(3-1) Interdepartmental with Media and Information. P: FLM 335 R: Approval of department. R: Open to undergraduate students in the Fiction Filmmaking Minor or approval of department.
Creation of a short film, including scripting, conceptualization and planning, shooting, and rough editing.
SA: ENG 435A
Effective Summer 2016 Effective Spring 2017

FLM 435B  Creating the Fiction Film II (W)
Spring of every year. 3(3-1) Interdepartmental with Media and Information. P: (FLM 435A or approval of department) and Completion of Tier I Writing Requirement R: Approval of department. R: Open to undergraduate students in the Fiction Filmmaking Minor or approval of department.
Finishing a short film, including line editing, color correction, sound design, and foley work. Developing web promotion, marketing strategies, and distribution.
SA: ENG 435B
Effective Fall 2016 Effective Spring 2017
DEPARTMENT OF FOOD SCIENCE AND HUMAN NUTRITION

HNF 385  Public Issues in Nutrition and Health
Public Health Nutrition
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: (HNF 150) and ((STT 200 or concurrently) or (STT 201 or concurrently) or (STT 224 or concurrently) or (STT 231 or concurrently) or (STT 421 or concurrently) or (STT 464 or concurrently) or approval of department) R: Not open to freshmen.
Nutrition from a public health perspective. Overview of public health research, evidence-based recommendations and epidemiology. Diet and nutrition assessment. Ethical issues surrounding public health nutrition recommendations.
**Effective Summer 2016 Effective Summer 2017**

HNF 485  Advanced Research Methods in Nutrition and Health
Advanced Public Health Nutrition
Fall of every year. Spring of every year. 3(2-2) P: HNF 250 and HNF 385 and STT 422 R: Open to students in the Nutritional Sciences Major. R: Open to students in the Nutritional Sciences Major and open to students in the Lyman Briggs Nutritional Sciences Coordinate Major.
Survey design, data collection and analysis of nutrition and health data. Use of statistical analysis software (SPSS/SAS). Interpretation and presentation of research results.
**Effective Summer 2016 Effective Summer 2017**

SCHOOL OF HOSPITALITY BUSINESS

HB 889  Hospitality Industry Field Study
Fall of every year. Spring of every year. Summer of every year. On Demand. 3 to 6 credits. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: 12 credits graduate course work R: Open only to graduate students in the College of Business. R: Open to graduate students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of school.
Research on a current issue, problem or opportunity in a segment of the hospitality industry. Industry relationships and networking. Faculty supervision in a field setting.
**Effective Fall 2003 Effective Fall 2017**

HB 890  Independent Study
Fall of every year. Spring of every year. Summer of every year. On Demand. 1 to 3 credits. 1 to 6 credits. A student may earn a maximum of 3 credits in all enrollments for this course. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open to graduate students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of school.
Faculty-supervised independent study.
**Effective Fall 2016 Effective Fall 2017**

SCHOOL OF HUMAN RESOURCES AND LABOR RELATIONS

HRLR 212  Career Management
Summer of every year. 3(3-0) R: Open to undergraduate students in the College of Social Science or approval of school.
Career development. Career self-assessment, occupational opportunities, changing global world of work, social networking, written communication, job interviews, the first job, career planning and decision making.
**Effective Summer 2017**

DEPARTMENT OF KINESIOLOGY

KIN 816  Exercise Physiology Across the Lifespan
Fall of even years. 3(3-0) P: KIN 310 or (PSL 431 and PSL 432) or (ANS 435 and ANS 445) RB: KIN or Animal Science or Physiology or Biology backgrounds recommended
Exercise physiology from childhood, through older adulthood, including pregnancy.
**Effective Fall 2014 Effective Summer 2017**
COLLEGE OF MUSIC

MUS 800  Jazz Arranging and Composition
Advanced Jazz Arranging and Composition
Fall of every year. Spring of every year. 4 to 3 credits. 1(1-0) A student may earn a maximum of 6 credits in all enrollments for this course. R: Open to graduate students in the College of Music or in the Jazz Studies Major or approval of college.
Advanced jazz instrumental writing focusing on developing harmonic skills at the piano for arranging purposes and arranging for small and large ensembles and voices. Advanced orchestration techniques. Music notation and score/chart preparation.
Effective Fall 2016 Effective Fall 2017

MUS 843  Seminar in Piano Pedagogy
Fall of every year. Spring of every year. 2(3-0) 2(2-0) A student may earn a maximum of 6 credits in all enrollments for this course. A student may earn a maximum of 8 credits in all enrollments for this course. P: MUS 346 and MUS 347 and MUS 448 RB: Bachelor of Music in Piano Performance, Piano Pedagogy or Music Education. Must satisfactorily pass an audition and interview as required by piano department. RB: Bachelor of Music in Piano Performance, Piano Pedagogy or Music Education. Must satisfactorily pass an audition and interview as required by piano area R: Open to graduate students in the College of Music.
Advanced piano pedagogy methods and materials for teaching piano at all levels. Conceptualizing and implementing a practical teaching project. Topics will vary. Advanced piano pedagogy methods and materials for teaching piano at all levels. Conceptualizing and implementing a practical teaching project.
Effective Summer 2008 Effective Fall 2017

MUS 976  Performance and Analysis
Spring of even years. On Demand. 3(3-0) P: (MUS 872) or MUS 875 or MUS 879 RB: Familiarity with the content of graduate level basic tonal theory and form courses. R: Open to graduate students in the College of Music.
Representative pieces are studied and prepared for performance in class sessions.
Exploration of how analysis can inform a performer's interpretive decisions and expressive choices.
Effective Spring 2017 Effective Fall 2017

MUS 978  Seminar in 20th- and 21st-Century Music Theory and Analysis
Late 20th- and 21st-Century Techniques
Spring of even years. Spring of every year. 3(3-0) 2(2-0) P: MUS 873 R: Open to graduate students in the College of Music.
Study of theories and analytical techniques for post-1900 music.
Study of theories and analytical techniques for post-WWII music.
Effective Spring 2017 Effective Fall 2017

PROGRAM IN NEUROSCIENCE

NEU 416  Development of the Nervous System Through the Lifespan
Fall of every year. 3(3-0) Interdepartmental with Integrative Biology. P: NEU 302 or ZOL 402 or PSY 200 P: NEU 302 or IBIO 300 or PSY 209 RB: ZOL 341 RB: IBIO 341 R: Open to undergraduate students in the Program in Neuroscience or in the Department of Integrative Biology or in the Department of Psychology or in the Lyman Briggs Neuroscience Major or in the Lyman Briggs Zoology Coordinate Major.
Development of neurons and their connections, roles of both genetics and behavioral experience in shaping the mammalian nervous system.
Effective Fall 2016 Effective Summer 2017
COLLEGE OF OSTEOPATHIC MEDICINE

OST 551  Osteopathic Patient Care I
Fall of every year. 2(1-2) R: Open to graduate-professional students in the College of Osteopathic Medicine.
Integration of components of the doctor-patient relationship, clinical assessment skills and evidence-based medicine to develop effective critical thinking and assessment skills in the care of patients. Emphasis is on communication in doctor-patient relationships. Clinical assessment skills and evidence-based medicine to develop effective critical thinking in the doctor-patient relationship.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Fall 2013 Effective Fall 2017

OST 552  Osteopathic Patient Care II
Spring of every year. 2(1-2) R: Open to graduate-professional students in the College of Osteopathic Medicine.
Integration of components of the doctor-patient relationship, clinical assessment skills and evidence-based medicine to develop effective critical thinking and assessment skills in the care of patients, as it relates to neurology, orthopedics, physiatry, endocrine, female reproduction and genitourinary systems. Clinical assessment skills and evidence-based medicine to develop effective critical thinking in the care of patients, as it relates to neurology, orthopedics, physiatry, endocrine, female reproduction and genitourinary systems.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Summer 2013 Effective Fall 2017

DEPARTMENT OF PHARMACOLOGY AND TOXICOLOGY

PHM 350  Introductory Human Pharmacology
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: (PSL 250 or PSL 310) or (PSL 431 and PSL 432) R: Not open to freshmen. Not open to students with credit in PHM 430 or PHM 440.
General principles of pharmacology. Central nervous system, autonomic nervous system, cardiovascular, renal, cancer, microbial, and endocrine pharmacology.
Effective Spring 2014 Effective Summer 2017

PHM 430  Human Pharmacology
Summer of every year. 3 credits. P: (PSL 250 or PSL 310) or (PSL 431 and PSL 432) RB: Molecular biology, biochemistry, chemistry, physiology, and/or human biology. R: Open to master’s students in the Integrative Pharmacology major or in the Pharmacology and Toxicology major. Approval of department. R: Open to master’s students in the Integrative Pharmacology Major or in the Pharmacology and Toxicology Major and open to undergraduate students. Approval of department. Not open to students with credit in PHM 350 or PHM 440.
General principles of pharmacology. Central nervous system and autonomic nervous system, cardiovascular, renal, cancer, microbial, and endocrine pharmacology.
Effective Spring 2014 Effective Spring 2017

PHM 450  Introduction to Chemical Toxicology
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: BS 161 and BS 162 and CEM 251 R: Not open to freshmen or sophomores.
Mammalian toxicology. Disposition of chemicals in the body, detoxication, elimination, and mechanisms of toxicity in major organ systems. Selected toxic agents.
Effective Fall 2014 Effective Spring 2017
PHM 461  Tropical Medicine Pharmacology  
Fall of every year. Spring of every year. Summer of every year. 2(2-0) P: PHM 350 or concurrently R: Open to juniors or seniors or master's students. Approval of department. 
Tropical diseases, epidemiologic and clinical features, and pharmacologic treatments. Multidisciplinary and interdisciplinary approaches, especially in poverty settings. 
Effective Fall 2016 Effective Spring 2017

PHM 802  Cellular, Molecular and Integrated Systems Pharmacology  
Spring of every year. 4(4-0) 3(3-0) P: (BMB 801 or BMB 802) and (PHM 827 or PSL 828 or PSL 829) R: Open to doctoral students or approval of department. 
Cellular and molecular mechanisms of drug actions on organ systems of humans and other mammals. 
Effective Spring 2015 Effective Spring 2018

PHM 819  Principles of Drug-Tissue Interactions  
Fall of every year. Spring of every year. Summer of every year. 1 to 2 credits. 2(2-0) A student may earn a maximum of 3 credits in all enrollments for this course. R: Open to graduate students or lifelong graduate students. Not open to students with credit in PHM 801. 
General principles relevant to the interaction of chemicals with biological systems. Topics include pharmacokinetics and/or pharmacodynamics. 
Effective Fall 2009 Effective Fall 2017

PHM 832  Applied Integrative Pharmacology Laboratory 
Summer of every year. 4(2-4) 3(3-0) P: PHM 819 and PHM 830 P: (PHM 813 or concurrently) and PHM 819 and PHM 830 RB: Undergrad degree in biology, chemistry or related field. Prior biomedical lab experience helpful. R: Not open to undergraduate students. Approval of department. 
Integrative and organ-level pharmacology. Regulatory issues in the use of experimental animals, animal models of diseases, animal and tissue preparation for whole-animal and organ-level pharmacology experiments, experimental design, data collection, data analysis, and data interpretation. Research methods using virtual simulation for studying integrative physiology and pharmacology. 
Effective Summer 2008 Effective Fall 2017

DEPARTMENT OF PHYSIOLOGY

PSL 310  Physiology for Pre-Health Professionals  
Fall of every year. Spring of every year. Summer of every year. 4(4-0) P: BS 161 or BS 181H or LB 145 or ANTR 350 Not open to students with credit in PSL 250 or PSL 431 or PSL 432. Not open to students with credit in PSL 431. 
Fundamental concepts of human organ system physiology with clinical examples for students entering health care fields. Human organ system physiology with clinical applications for students entering health care fields. 
Effective Spring 2014 Effective Summer 2017

DEPARTMENT OF PLANT PATHOLOGY

PLP 405  Plant Pathology  
Spring of every year. 3(2-3) P: (BS 161 and BS 162) or (PLB 105 and PLB 106) or ((LB 144 and LB 145) and completion of Tier I writing requirement) P: (BS 161 and BS 162) and completion of Tier I writing requirement) or (PLB 105 and PLB 106) and completion of Tier I writing requirement) or ((LB 144 and LB 145) and completion of Tier I writing requirement) Not open to students with credit in PLP 407. 
Plant diseases and the organisms that cause them. Principles of disease management including application of chemicals, plant breeding, biological control, and genetic engineering. 
SA: BOT 405 
Effective Spring 2014 Effective Fall 2016
DEPARTMENT OF SMALL ANIMAL CLINICAL SCIENCES

SCS 566  Emergency and Critical Care Medicine Seminars
Fall of every year. Spring of every year. 1(1-0) RB: Completion of year 1 of the graduate professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.
Case-based discussion of small animal veterinary emergency and critical care medical issues.
Request the use of the Pass-No Grade (P-N) system.
Effective Fall 2017

DEPARTMENT OF SUPPLY CHAIN MANAGEMENT

SCM 870  Introduction to Supply Chain Management I
Introduction to Supply Chain Management
Fall of every year. Spring of every year. Summer of every year. 3(3-0) R: Open to master's students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of department. R: Open to master's students in the Supply Chain Management Major. Approval of department.
Integrated view of procurement, operations, and logistics management. Management of the flow of products from raw material sourcing and acquisition through delivery to the final customer.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
SA: MSC 870
Effective Fall 2016 Effective Fall 2017

SCM 881  Global Supply Chain Management
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: SCM 870 R: Open to master's students in the Supply Chain Management Major. R: Open to master's students in the Supply Chain Management Major. Approval of department.
Requirements for global operations and strategy development. Similarities and differences of international and domestic supply chain operations.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
SA: MSC 881
Effective Summer 2011 Effective Fall 2017

SCM 887  Introduction to Packaging for Supply Chain
Packaging Design/Engineering Optimization in Supply Chain
Fall of every year. Spring of every year. Summer of every year. 1.5 to 3 credits. 2(2-0) P: SCM 870 R: Open to master's students in the Supply Chain Management Major. R: Open to master's students in the Supply Chain Management Major. Approval of department.
Overview of packaging materials, filling lines, and distribution dynamics related to supply chain management. Overview of engineering and packaging functions that directly affect supply chain efficiency and functionality. Familiarize students with tools to solve supply chain based engineering and packaging applications.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Summer 2016 Effective Fall 2017
SCM 888  Food Safety in Supply Chain Management  
Product Protection and Safety for Supply Chain Managers  
Fall of every year. Spring of every year. Summer of every year. 1.5 to 3 credits. 2(2-0) P: SCM 870 
R: Open to master's students in the Supply Chain Management Major. R: Open to master's 
students in the Supply Chain Management Major. Approval of department.  
Understanding of food safety requirements, challenges and the key considerations for 
managing food safety in supply chains. Introduction to general issues related to product 
safety and protection and how these problems affect supply chain management. 
Foundational discussion of brand protection, anti-counterfeiting, and food safety 
requirements and challenges. 
Request the use of ET-Extension to postpone grading. 
The work for the course must be completed and the final grade reported within 1 semester 
after the end of the semester of enrollment. 
Effective Summer 2016 Effective Fall 2017 

DEPARTMENT OF THEATRE 

THR 211  Introduction to Lighting Design  
Fall of every year. Spring of every year. Summer of every year. 3(2-2) P: THR 111 and THR 111L 
C: THR 211L concurrently.  
Design and technical aspects regarding the design process and electrical production of 
stage lighting. 
Effective Fall 2015 Effective Fall 2017 

THR 211L  Introduction to Lighting Design Laboratory  
Fall of every year. Spring of every year. Summer of every year. 1(0-2) P: THR 111 and THR 111L 
C: THR 211 concurrently.  
Intensive experience participating in the production program of the Department of Theatre. 
Assisting at a beginning level on the lighting crew, as deck electrician or as a lighting 
board operator. 
Effective Fall 2015 Effective Fall 2017 

THR 212  Introduction to Costume Design  
Fall of odd years. Spring of even years. 3(2-2) P: THR 111 and THR 111L C: THR 212L 
concurrently.  
Design and technical aspects regarding the process and production of stage costumes 
and costume history. 
Effective Fall 2015 Effective Fall 2017 

THR 212L  Introduction to Costume Design Laboratory  
Fall of odd years. Spring of even years. 1(0-2) P: THR 111 and THR 111L C: THR 212 
concurrently.  
Intensive experience participating in the production program of the Department of Theatre. 
Assisting at a beginning level in costume construction, make up crew, or wardrobe crew. 
Effective Fall 2015 Effective Fall 2017 

THR 214  Introduction to Scene Design  
Fall of every year. Spring of every year. Summer of every year. 3(2-2) P: THR 111 and THR 111L 
C: THR 214L concurrently.  
Design and technical aspects regarding the design process and production of stage 
scenery. 
Effective Fall 2015 Effective Fall 2017 

THR 214L  Introduction to Scene Design Laboratory  
Fall of every year. Spring of every year. Summer of every year. 1(0-2) P: THR 111 and THR 111L 
C: THR 214 concurrently.  
Intensive experience participating in the production program of the Department of Theatre. 
Assisting at a beginning level in the scenery crew, carpenter or properties run crew. 
Effective Fall 2015 Effective Fall 2017
THR 216  Introduction to Sound Design
Fall of odd years. Spring of even years. 3(2-2) P: THR 111 and THR 111L C: THR 216L concurrently.
Design and technical aspects regarding the process and production of sound performance media, composition and sound reinforcement for the stage.
Effective Fall 2015 Effective Fall 2017

THR 216L  Introduction to Sound Design Laboratory
Fall of odd years. Spring of even years. 1(0-2) P: THR 111 and THR 111L C: THR 216 concurrently.
Intensive experience participating in the production program of the Department of Theatre. Assisting at a beginning level on the sound crew, sound board operator or run crew.
Effective Fall 2015 Effective Fall 2017

THR 219  Introduction to Projection Design for the Stage
Fall of even years. Spring of odd years. 3(2-2) P: THR 111 and THR 111L C: THR 219L concurrently.
Design and technical aspects regarding the design process and production of projection performance media.
Effective Fall 2016 Effective Fall 2017

THR 219L  Introduction to Projection Design for the Stage Laboratory
Fall of even years. Spring of odd years. 1(0-2) P: THR 111 and THR 111L C: THR 219 concurrently.
Participation in the production program of the Department of Theatre. Assisting at a beginning level on the video production crew or as projection operator or run crew.
Effective Fall 2016 Effective Fall 2017

COLLEGE OF VETERINARY MEDICINE

VM 611  Veterinary Externship
Fall of every year. Spring of every year. Summer of every year. 3 credits. A student may earn a maximum of 9 credits in all enrollments for this course. A student may earn a maximum of 15 credits in all enrollments for this course. RB: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.
Clinical or research experience in an off-campus setting.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Summer 2012 Effective Summer 2017

OFFICE OF THE PROVOST

UGS 101  Freshman Seminar Big Ideas Seminar
Fall of every year. Spring of every year. 4(1-0) 1 to 3 credits. A student may earn a maximum of 2 credits in all enrollments for this course. A student may earn a maximum of 3 credits in all enrollments for this course. R: Open to freshmen. R: Open to freshmen and open to sophomores. A student may earn a maximum of 6 credits in UGS 100, 101, 102, and 103 or any combination of these courses.
Introduction to scholarship and inquiry. Special disciplinary-based topics designed to engage the interests of new students in the scholarly life of the university. Introduction to inquiry, research, and scholarship of complex issues. Special topics designed to engage new students' interests in the academic life of the university.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Summer 2016 Effective Fall 2017