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
PART I - NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

COLLEGE OF ARTS AND LETTERS


   Per the May 30, 2013 memo to Deans, Directors, and Chairpersons from Linda O. Stanford, Associate Provost for Academic Services, all units offering undergraduate specializations will need to convert the award to a minor.

   Students currently enrolled in the Specialization will continue to follow the requirements for the specialization that were in effect the term they were admitted to the specialization.

   Students who do not complete the requirements for the specialization prior to Fall 2015 will be administratively moved to the minor.

   Students admitted to the Minor in African American and African Studies Fall 2015 and forward will follow the requirements for the minor in accordance with the minor policy.

2. Change the requirements for the Minor in African American and African Studies in the College of Arts and Letters.

   a. Under the heading Requirements for the Minor in African American and African Studies replace the entire entry with the following:

      Students must complete 18 credits from the following:

      1. All of the following core courses (12 credits):
         - AAAS 100 Race and Community in Local to Global Perspective 3
         - AAAS 300 Survey in Africana Studies 3
         - AAAS 390 Special Topics in Black/Africana Studies 3
         - AAAS 495 Advanced Research in African American and African Studies 3

      2. Complete a minimum of 6 credits in courses from one of the following concentrations:

         Politics and Society
         - ANP 330 Race, Ethnicity, and Nation: Anthropological Approaches to Collective Identity 3
         - EC 414 Economic Analysis of Sub-Saharan Africa (W) 3
         - HST 312 African American Women 3
         - HST 360 African History to 1800 3
         - HST 361 African History since 1800 3
         - HST 480 Seminar in American History (W) 3
         - MC 324B Regional Politics, Cooperation, and Conflict in Sub Saharan Africa 4
         - MC 372 Comparative Black Political Thought 4
         - MC 377 Culture, Politics, and Post-Colonialism 4
         - MC 383 African American Politics 4
         - PHL 350 Introduction to Social and Political Philosophy 3
         - PLS 304 Minority Politics 3
         - PLS 351 African Politics 3
         - PLS 377 American Political Thought 3
         - SOC 215 Race and Ethnicity 3
         - SOC 330 Social Stratification 3
         - SOC 375 Urban Sociology 3

      History 480 must have a significant focus on African American and African Studies subject matter and have prior approval by the Director of the Minor prior to enrollment.
PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

Humanities and Culture

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 350</td>
<td>Readings in African, African-American, or African Diaspora Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENG 353</td>
<td>Readings in Women Writers</td>
<td>3</td>
</tr>
<tr>
<td>ENG 360</td>
<td>African History to 1800</td>
<td>3</td>
</tr>
<tr>
<td>ENG 420</td>
<td>Language and Culture</td>
<td>3</td>
</tr>
<tr>
<td>HST 310</td>
<td>African American History to 1876</td>
<td>3</td>
</tr>
<tr>
<td>HST 311</td>
<td>African American History since 1876</td>
<td>3</td>
</tr>
<tr>
<td>HST 360</td>
<td>African History to 1800</td>
<td>3</td>
</tr>
<tr>
<td>HST 361</td>
<td>African History since 1800</td>
<td>3</td>
</tr>
<tr>
<td>HST 383</td>
<td>The Caribbean</td>
<td>3</td>
</tr>
<tr>
<td>HST 480</td>
<td>Seminar in American History (W)</td>
<td>3</td>
</tr>
<tr>
<td>IAH 211C</td>
<td>Area Studies and Multicultural Civilizations: The Americas (D)</td>
<td>4</td>
</tr>
<tr>
<td>IAH 231B</td>
<td>Themes and Issues: Moral Issues and the Arts and Humanities (D)</td>
<td>4</td>
</tr>
<tr>
<td>IAH 241A</td>
<td>Creative Arts and Humanities: Music and Society in the Modern World (D)</td>
<td>4</td>
</tr>
<tr>
<td>MC 395</td>
<td>Cultural Dimensions of Public Affairs</td>
<td>4</td>
</tr>
<tr>
<td>MUS 426</td>
<td>Music of Africa</td>
<td>4</td>
</tr>
<tr>
<td>MUS 491</td>
<td>Special Topics in Music</td>
<td>1 to 4</td>
</tr>
<tr>
<td>PHL 350</td>
<td>Introduction to Social and Political Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>WRA 125</td>
<td>Writing: The American Ethnic and Racial Experience</td>
<td>4</td>
</tr>
</tbody>
</table>

History 480 must have a significant focus on African American and African Studies subject matter and have prior approval by the Director of the Minor prior to enrollment.

Effective Fall 2015.

2. Change the requirements for the Master of Arts degree in Foreign Language Teaching. The University Committee on Graduate Studies (UCGS) approved this request at its September 8, 2014 meeting.

a. Under the heading Admission make the following changes:

(1) Replace item 2. with the following:

complete the online application which includes an academic and personal statement.

(2) Delete paragraph two and items 1., 2., and 3. and replace with the following:

To be admitted to the program on regular status, an applicant must have a baccalaureate degree or its equivalent form a recognized educational institution.

(3) At the end of paragraph three add the following statement:

or an International English Language Testing System (IELTS) score of 7.5 or higher.

b. Under the heading Requirements for the Master of Arts Degree in Foreign Language Teaching replace items 1. through 4. with the following:

1. All of the following courses (24 credits):

   - FLT 807 Foreign Language Teaching Methods                                  3
   - FLT 808 Assessment for Foreign Language Teaching                          3
   - FLT 815 Teaching Culture in Foreign Language Courses                     3
   - FLT 817 Foreign Language Program Development and Administration          3
   - FLT 845 Language Concepts for Foreign Language Teaching                  3
   - FLT 860 Second Language Acquisition                                      3
   - FLT 881 Teaching Foreign Language with Technology                        3
   - FLT 885 Experiential Module in Foreign Language Teaching                 3

2. One of the following courses (3 credits):

   - FLT 841 Topics in Foreign Language Teaching                              3
   - FLT 842 Teaching Reading in a Foreign Language                          3
3. Complete the following course (3 credits):
   FLT 898 Master’s Research

4. Successfully complete a final examination or evaluation which is fulfilled by completion of a portfolio developed during the FLT 898 course and must be submitted to the program director after completion of the core courses and experiential module(s). The purpose of the portfolio as a certifying examination is (1) to demonstrate an understanding of second language acquisition theories and their application to student learning and to the practice of teaching the target language, (2) to demonstrate an understanding of theories of culture and their application to the practice of teaching the target culture in the target language classroom, and (3) to enable the student to articulate the integration of learning from the experiential modules into the program of study and career objectives. The portfolio must include the artifacts that are outlined in the comprehensive language teaching portfolio examination handbook, which is given out each year by the program director and is available on the program’s Web site.

Effective Spring 2015.

3. Delete the curriculum and degree requirements for the Bachelor of Arts degree in American Studies in the Department of Writing, Rhetoric and American Cultures. The University Committee on Undergraduate Education (UCUE) provided consultative commentary to the Provost after considering this request. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Undergraduate Education.

No new students are to be admitted to the program effective Spring 2010. No students are to be readmitted to the program effective Spring 2010. Effective Summer 2014, coding for the program will be discontinued and the program will no longer be available in the College of Arts and Letters. Students who have not met the requirements for the Bachelor of Arts degree in American Studies through the College of Arts and Letters prior to Summer 2014 will have to change their major.

ELI BROAD COLLEGE OF BUSINESS

1. Delete the curriculum and degree requirements for the Specialization in International Business in the Eli Broad College of Business. The University Committee on Undergraduate Education (UCUE) provided consultative commentary to the Provost after considering this request. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Undergraduate Education.

No new students are to be admitted to the program effective Fall 2011. No students are to be readmitted to the program effective Fall 2011. Effective Fall 2014, coding for the program will be discontinued and the program will no longer be available in the Eli Broad College of Business. Students who have not met the requirements for the Specialization in International Business through the Eli Broad College of Business prior to Fall 2014 will have to change their major.
2. Change the requirements for the Master of Science degree in Marketing Research in the Department of Marketing. The University Committee on Graduate Studies (UCGS) approved this request at their September 8, 2014 meeting.

   a. Under the heading Requirements for the Master of Science Degree in Marketing Research make the following changes:

      (1) Add the statement, ‘Students must complete an internship in the summer session.’

      (2) In item 1. delete the following course:

           MKT 412  Marketing Technology and Analytics   3

           Add the following course:

           MKT 829  Marketing Technology and Analytics   3

   Effective Spring 2015.

---

COLLEGE OF COMMUNICATION ARTS AND SCIENCES

1. Delete the curriculum and degree requirements for the Bachelor of Arts degree in Communicative Sciences and Disorders in the College of Communication Arts and Sciences. The University Committee on Undergraduate Education (UCUE) provided consultative commentary to the Provost after considering this request. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Undergraduate Education.

   No new students are to be admitted to the program effective Spring 2010. No students are to be readmitted to the program effective Spring 2010. Effective Fall 2015, coding for the program will be discontinued and the program will no longer be available in the College of Communication Arts and Sciences. Students who have not met the requirements for the Bachelor of Arts Degree in Communicative Sciences and Disorders through the College of Communication Arts and Sciences prior to Fall 2015 will have to change their major.

---

COLLEGE OF EDUCATION

1. Change the administrative responsibility for the Doctor of Philosophy degree in Educational Policy in the College of Education to the Department of Educational Administration. The University Committee on Graduate Studies (UCGS) approved this request at its September 8, 2014 meeting.

   Effective Spring 2015.

---

2. Change the requirements for the Bachelor of Science degree in Athletic Training in the Department of Kinesiology. The University Committee on Undergraduate Education approved this request at its September 18, 2014 meeting.

   a. Under the heading Admission as a Junior, add the following course to item 2.:

           KIN 228  Clinical Rotation and Skills Introduction in Athletic Training   1

   b. Under the heading Requirements for the Bachelor of Science Degree in Athletic Training make the following changes:

      (1) In item 2. b. make the following changes:

           (a) Change the total credits from ‘39’ to ‘40’.
(b) Add the following course:
  KIN 228 Clinical Rotation and Skills Introduction in Athletic Training 1

(2) In item 2. d. make the following changes:
(a) Change the total credits from ‘22’ to ‘15’.
(b) Delete the following courses:
  HNF 150 Introduction to Human Nutrition 3
  PSY 101 Introductory Psychology 4

(3) Reletter items 2. e., 2. f., and 2. g. to 2. f., 2. g., and 2. h. respectively.
(4) Add the following item 2. e.:
  One 3-credit, 400-level course in the Department of Kinesiology as approved by the
  Director of Athletic Training.

Effective Spring 2015.

3. Change the requirements for the Doctor of Philosophy degree in Kinesiology in the Department of
   Kinesiology. The University Committee on Graduate Studies (UCGS) approved this request at its September
   8, 2014 meeting.
   a. Under the heading Requirements for the Doctor of Philosophy Degree in Kinesiology make
      the following change:
      (1) Replace item 1. with the following:
         a. The following course:
            KIN 995 Research Practicum in Kinesiology 1 to 3
         b. Complete 9 credits of 800-900 level research methods courses
            approved by the student’s guidance committee.

   Effective Spring 2015.

4. Change the award type for the Specialization in Coaching to Minor in Coaching in the Department of
   Kinesiology.

   Per the May 30, 2013 memo to Deans, Directors, and Chairpersons from Linda O. Stanford, Associate
   Provost for Academic Services, all units offering undergraduate specializations will need to convert the
   award to a minor.

   Students currently enrolled in the Specialization will continue to follow the requirements for the specialization
   that were in effect the term they were admitted to the specialization.

   Students who do not complete the requirements for the specialization prior to Fall 2015 will be
   administratively moved to the minor.

   Students admitted to the Minor in Coaching Fall 2015 and forward will follow the requirements for the minor
   in accordance with the minor policy.
5. Change the requirements for the **Minor in Coaching** in the Department of Kinesiology.

a. Under the heading **Requirements for the Minor in Coaching** make the following changes in item 3.:

   (1) Change the total credits from '2 or 3' to '2'.

   (2) Delete the following course:

   KIN  300L  Coaching for Strength, Conditioning and Fitness  3

   Add the following courses:

   KIN  300A  Coaching for Baseball     2
   KIN  402  Coaching for Strength, Conditioning and Fitness     2

   Effective Fall 2015.

6. Change the requirements for the **Bachelor of Arts** degree in **Education** in the Department of Teacher Education. The Teacher Education Council (TEC) approved this request at its September 8, 2014 meeting.

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

   (1) In item 2. b. (4) change the note to the following:

   This course is waived for the Integrated Science Teaching Major. Integrated Science Education 301 is a prerequisite to Teacher Education 403 and must be completed with a minimum grade of 2.0 prior to enrollment in Teacher Education 403.

   (2) Change item 2. b. (8) to the following:

   One of the following creative arts courses (3 credits):

   MUS  463  Methods and Materials of Elementary Music  3
   TE  430  Introduction to Arts in the Classroom  3
   TE  431  Learning Through Drama  3
   TE  432  Learning Through Movement  3
   THR  421  Creative Dramatics  3
   THR  422  Children's Theatre  3

   Language Arts Teaching Majors may apply one of these courses to the Language Arts requirements, in which case 0 credits count toward the Planned Program.

   Effective Spring 2015.

7. Change the requirements for **Teacher Certification** in the Department of Teacher Education. The Teacher Education Council (TEC) approved this request at its September 8, 2014 meeting.

a. Under the heading **Teacher Certification Internship Year Studies Program**, in item 3. a. delete the reference to 'communicative sciences and disorders'.

b. Under the heading **Undergraduate Professional Education and Planned Program Course Requirements for Elementary Teacher Certification** make the following changes:

   (1) Replace the note in item b. (4) with the following:

   This course is waived for the Integrated Science Teaching Major. Integrated Science Education 301 is a prerequisite to Teacher Education 403 and must be completed with a minimum grade of 2.0 prior to enrollment in Teacher Education 403.
(2) Replace item b. (8) with the following:

One of the following creative arts courses (3 credits):
MUS  463    Methods and Materials of Elementary Music  3
TE   430    Introduction to Arts in the Classroom  3
TE   431    Learning Through Drama  3
TE   432    Learning Through Movement  3
THR  421    Creative Dramatics  3
THR  422    Children’s Theatre  3

Language Arts Teaching Majors may apply one of these courses to the Language Arts requirements, in which case 0 credits count toward the Planned Program.

c. Under the heading Undergraduate Professional Education Course Requirements for Secondary Teacher Certification make the following changes:

(1) In item 1. a. change the total credits from ‘21’ to ‘20’ and the credits of TE 408 from ‘6’ to ‘5’.

(2) Add the following item 1. b.:

The following course if the teaching major and minor are in different subject matter:
TE   409    Crafting Teaching Practices in the Secondary Teaching Minor  1

(3) Delete the note ‘The pedagogy courses that are required for students with a disciplinary major in communicative sciences and disorders….’.

(4) In the note ‘The pedagogy courses that are required for students with a disciplinary major in music education….’, add the following sentence at the end of the note:

Teacher Education 409 is required if the student pursues a minor. It is not required of the major.

Effective Spring 2015.

8. Change the requirements for the Language Arts Teaching Major for Elementary Teacher Certification in the Department of Teacher Education. The Teacher Education Council (TEC) approved this request at its September 8, 2014 meeting.

a. Under the heading Language Arts Teaching Major for Elementary Teacher Certification make the following changes:

(1) In item 1. b. delete the following course:
LIN  441    Historical Linguistics  3

(2) In item 1. c. delete the following courses:
ENG  404    English Dialects  3
ENG  405    Language Use in the African American Community  3

(3) In item 2. b. delete the following course:
WRA  417    Multimedia Writing  4

(4) In item 3. b. delete the following courses:
ENG  230    Introduction to Film  4
ENG  330    Classical Film and Media Theory  3
PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

ENG 331 Contemporary Film and Media Theory   3
ENG 333 Studies in Film Genres (D)     3

Add the following courses:
FLM 230 Introduction to Film     4
FLM 331 Contemporary Film and Media Theory   3
FLM 355 Studies in Film Genres     3
FLM 380 Classical Film and Media Theory   3

Effective Spring 2015.

COLLEGE OF HUMAN MEDICINE

1. Establish a **Graduate Certificate in Applied Parasitology and Public Health** in the College of Human Medicine. The University Committee on Graduate Studies (UCGS) recommended approval of this request at its April 7, 2014 meeting.

The Graduate Certificate in Applied Parasitology and Public Health is a Type 2 graduate certificate and will appear on the transcript as “Graduate Certificate Program in Applied Parasitology and Public Health”.

a. **Background Information:**

The proposed Graduate Certificate in Applied Parasitology for Public Health will allow students and professionals who do not have a background in parasitology to gain critical insight the impact parasites have on public health. The series of courses address the multitude of challenges on a local, national, and global level, applying the core principle of public health, prevention, in a scientific and systematic manner impacting entire populations. The certificate will provide an overview of the different epidemiological factors involved in the prevalence, transmission, and pathogenicity of the parasitic diseases; demonstrate the importance of the different techniques used in surveillance, prevention, and control of parasitic infection; stress the importance of understanding the host-parasite relationship as the bases for prevention, protection, and morbidity control; provide the skill-set that students may apply in program development within their local communities; and provide an opportunity for students to share experiences from their own communities.

The certificate is the natural progression of both the changes in medical education related to the developing world, and the research and field activities that have been carried out at MSU for the past 20 years. It replaces a missing component of medical education at MSU – medical parasitology which was dropped from the medical microbiology curriculum. This area is an increasingly important discipline in infectious diseases as international travel and the global population rapidly increase. MSU is uniquely able to provide a very practical program through the hands on field level experiences of its faculty.

b. **Academic Programs Catalog Text:**

The Graduate Certificate in Applied Parasitology for Public Health provides students the knowledge necessary for augmenting existing graduate and medical programs by contributing to the development, implementation, and maintenance of field-based health programs aimed at controlling or eliminating parasitic infections. The Graduate Certificate in Applied Parasitology for Public Health is available only online.

**Requirements for the Graduate Certificate in Applied Parasitology for Public Health**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HM 863</td>
<td>Parasitic Diseases and Public Health in Developing Countries</td>
<td>3</td>
</tr>
<tr>
<td>HM 881</td>
<td>Pathogenesis of Parasitic Infections Important to Public Health</td>
<td>3</td>
</tr>
<tr>
<td>HM 886</td>
<td>Public Health Diagnosis and Interpretation of Parasitic Infections</td>
<td>3</td>
</tr>
</tbody>
</table>
Report of the UCC to the Faculty Senate - 11  October 14, 2014
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>HM 887</td>
<td>Control and Eradication of Parasitic Infections of Public Health Importance</td>
<td>3</td>
</tr>
<tr>
<td>HM 888</td>
<td>Field Methodology for Investigating Parasitic Diseases of Public Health Importance</td>
<td>3</td>
</tr>
</tbody>
</table>

Effective Spring 2015

COLLEGE OF NATURAL SCIENCE

1. Establish a Linked Bachelor of Science Degree in Physiology and Master of Science Degree in Physiology in the Department of Physiology in the College of Natural Science, College of Human Medicine, College of Osteopathic Medicine, and the College of Veterinary Medicine. The College of Natural Science is the primary administrative unit. The University Committee on Undergraduate Education (UCUE) recommended approval of this request at its April 24, 2014 meeting. The University Committee on Graduate Studies (UCGS) recommended approval of this request at its April 7, 2014 meeting.

Per University policy:

A candidate for a Linked Bachelor's-Master's Degree from Michigan State University may request the application of up to 9 credits toward the master's program for qualifying 400-level and above course work taken at the undergraduate level at Michigan State University or an external accredited institution. The number of approved credits, not to exceed 9, are applied toward the credit requirement of the master's degree. Credits applied to the Linked Bachelor's-Master's Program are not eligible to be applied to any other graduate degree program.

a. Add the following statement in the Department of Physiology:

LINKED BACHELOR’S-MASTER’S DEGREE IN PHYSIOLOGY
Bachelor of Science Degree in Physiology
Master of Science Degree in Physiology

The department welcomes applications from Michigan State University Physiology undergraduate students in their junior and senior year. Admission applications must be made during the prior spring semester for an anticipated spring graduation or the prior fall semester for an anticipated fall graduation to allow admission before the final semester as a Physiology undergraduate. Admission to the program requires a minimum undergraduate grade-point average of 3.5 and an approved program of study for the Master of Science degree in Physiology at the time of admission. Admission to the Linked Bachelor's-Master's program allows the application of up to 9 credits toward the master's program for qualifying 400-level and above course work taken at the undergraduate level at Michigan State University or an external accredited institution. The number of approved credits, not to exceed 9, are applied toward the credit requirement of the master's degree. Credits applied to the Linked Bachelor's-Master's program are not eligible to be applied to any other graduate degree program.

Effective Spring 2015.

2. Change the requirements for the Bachelor of Arts degree in Zoology in the Department of Zoology.

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

(1) In item 1., change paragraph two to the following:

The University’s Tier II writing requirement for the Zoology major is met by completing two of the following courses: Zoology 328, 353, 355L, 384, 415, 425, 445, 450, and 483. Those courses are referenced in item 3. below.

(2) Replace item 3. a. (2) with the following:
First year competency in a foreign language, Computer Science and Engineering 101 or 131, Mathematics 124 or 132 or 152H or Lyman Briggs 118, and Statistics and Probability 201, 224, 231, or 421.

Students who pass a waiver examination for Computer Science and Engineering 101 will not be required to complete Computer Science and Engineering 101 or 131. Mathematics 124 or 132 or 152H or Lyman Briggs 118 and Statistics and Probability 201, 224, 231, or 421 may be used to satisfy both the requirement referenced in item 3. a. (2) and the requirement referenced in items 3. e. and 3. f. below.

(3) Replace item 3. e. with the following:
e. One of the following courses (3 or 4 credits):
   LB  118  Calculus I    4
   MTH 124  Survey of Calculus I    3
   MTH 132  Calculus I    3
   MTH 152H Honors Calculus I    3

f. One of the following courses (3 or 4 credits):
   LB  119  Calculus II    4
   MTH 126  Survey of Calculus II    3
   MTH 133  Calculus II    4
   MTH 153H Honors Calculus II    4
   STT  201  Statistical Methods    4
   STT  224  Introduction to Probability and Statistics for Ecologists    3
   STT  231  Statistics for Scientists    3
   STT  421  Statistics I    3

Mathematics 124 or 132 or 152H or Lyman Briggs 118 and Statistics and Probability 201, 224, 231, or 421 may be used to satisfy both the requirement referenced in item 3. a. (2) and the requirement referenced in items 3. e. and 3. f.

(4) Reletter item 3. f. to item 3. g.

Effective Spring 2015.

3. Change the requirements for the Bachelor of Science degree in Zoology in the Department of Zoology.

The concentrations in the Bachelor of Science degree in Zoology 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 Zoology make the following changes:

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

The University’s Tier II writing requirement for the Zoology major is met by completing two of the following courses: Zoology 328, 353, 355L, 384, 415, 425, 445, 450, and 483. Those courses are referenced in item 3. e. below. These courses also fulfill requirements in concentrations below.

(2) Replace item 3. c. with the following:

One of the following courses (3 or 4 credits):
   LB 118  Calculus I    4
   MTH 124  Survey of Calculus I    3
   MTH 132  Calculus I    3
   MTH 152H Honors Calculus I    3

(3) Add the following new item 3. d.:

One of the following courses (3 or 4 credits):
   LB 119  Calculus II    4
   MTH 126  Survey of Calculus II    3
   MTH 133  Calculus II    4
PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

MTH 153H Honors Calculus II 4
STT 201 Statistical Methods 4
STT 224 Introduction to Probability and Statistics for Ecologists 3
STT 231 Statistics for Scientists 3
STT 421 Statistics I 3

(4) Reletter item 3. d. to item 3. e.

(5) In item 3. e. under the General Zoology concentration make the following changes:

(a) Add total credits of ‘33 credits’.

(b) In item (2) change the total credits from ‘11 or 12’ to ‘10 to 12’ and add the following course to (c):

MMG 409 Eukaryotic Cell Biology 3

(c) Replace item (3) with the following:

A minimum of 4 laboratory courses at the 300-400 level selected from the following:

- ANS 313 Principles of Animal Feeding and Nutrition 4
- MMG 302 Introductory Laboratory for General and Allied Health Microbiology 1
- ZOL 306 Invertebrate Biology 4
- ZOL 320 Developmental Biology 4
- ZOL 328 Comparative Anatomy and Biology of Vertebrates (W) 4
- ZOL 343 Genetics Laboratory 3
- ZOL 355L Ecology Laboratory (W) 1
- ZOL 360 Biology of Birds 4
- ZOL 365 Biology of Mammals 4
- ZOL 384 Biology of Amphibians and Reptiles (W) 4
- ZOL 408 Histology 4
- ZOL 425 Cells and Development (W) 4

A laboratory course taken to satisfy item (1) or (2) may also be applied to this requirement.

(d) Replace item (4) with the following:

Additional credits in 300-400 level Zoology courses as needed to meet the requirement of at least 33 credits. Students may complete more than one course, or pair of courses, from item (2). Additional courses completed from item (2) may be counted as Zoology electives toward the 33 credits. Courses beyond those taken to satisfy items (1), (2), or (3) may come from other departments with the approval of the student’s academic advisor.

(6) In item 3. e. under the Cell and Developmental Biology concentration make the following changes:

(a) Add total credits of ‘33 credits’.

(b) In item (3) add the following courses:

BMB 401 Comprehensive Biochemistry 4
MMG 404 Human Genetics 3

(c) In item (3) replace the note with the following:

Biochemistry and Molecular Biology 461 and 462 combined, may be substituted for Biochemistry and Molecular Biology 401. If ZOL 320 and 425 are both completed in item (2), students only need to complete 14 credits in course work to fulfill this requirement.

(d) Delete item (4).
(7) In item 3. e. under the Ecology, Evolution, and Organismal Biology concentration make the following changes:

(a) Add total credits of ‘33 credits’.

(b) Replace item (4) with the following:

One of the following courses, or pair of courses (3 or 4 credits):

FW 419 Applications of Geographic Information Systems to Natural Resource Management 4
GEO 221 Introduction to Geographic Information 3
and
GEO 221L Introduction Geographic Information Laboratory 1
GEO 325 Geographic Information Systems 3
GLG 434 Evolutionary Paleobiology 4
PLB 418 Plant Systematics 3
ZOL 446 Environmental Issues and Public Policy 3
GEO 221 and 221L combined must be completed to satisfy this requirement.

(c) Replace item (5) with the following:

Additional credits in 300-400 level Zoology courses as needed to meet the requirement of at least 33 credits. Students may complete more than one course, or pair of courses, from items (2), (3), or (4). Additional courses completed from items (2), (3), or (4) may be counted as Zoology electives toward the 33 credits. Courses beyond those taken to satisfy items (1), (2), (3), or (4) may come from other departments with the approval of the student’s academic advisor.

(8) In item 3. e. under the Genetics concentration make the following changes:

(a) Add total credits of ‘33 credits’.

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

A minimum of 4 credits completed in a genetics laboratory or field experience arranged in consultation with the student’s academic advisor.

(c) Replace item (4) with the following:

Additional credits in 300-400 level Zoology courses as needed to meet the requirement of at least 33 credits. If both BMB 472 and ZOL 425 are completed in item (2), the second course may be counted as a Zoology elective. Additional courses completed from items (1), (2), or (3) may come from other departments with the approval of the student’s academic advisor.

(9) In item 3. e. under the Neurobiology and Animal Behavior concentration make the following changes:

(a) Change the name to Animal Behavior and Neurobiology.

(b) Add total credits of ‘33 credits’.

(c) In item (3) add the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANS 405</td>
<td>Endocrinology of Reproduction</td>
<td>4</td>
</tr>
<tr>
<td>ANS 455</td>
<td>Avian Physiology</td>
<td>4</td>
</tr>
<tr>
<td>FW 364</td>
<td>Ecological Problem Solving</td>
<td>3</td>
</tr>
<tr>
<td>FW 419</td>
<td>Applications of Geographic Information Systems to Natural Resource Management</td>
<td>4</td>
</tr>
<tr>
<td>LIN 463</td>
<td>Introduction to Cognitive Science</td>
<td>3</td>
</tr>
<tr>
<td>SOC 412</td>
<td>Animals, People and Nature</td>
<td>3</td>
</tr>
</tbody>
</table>

Delete the following courses:
PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

ANS 482 Advanced Companion Animal Management 3
PSY 463 Introduction to Cognitive Science 3

(d) Replace item (4) with the following:

Additional credits in 300-400 level Zoology courses as needed to meet the requirement of at least 33 credits. Students may complete more than one course, or pair of courses, from items (2) or (3). Additional courses completed from items (2) or (3) may be counted as Zoology electives toward the 33 credits. Courses beyond those taken to satisfy items (1), (2), or (3) may come from other departments with the approval of the student’s academic advisor.

(10) In item 3. e. under the **Zoo and Aquarium Science** concentration make the following changes:

(a) Add total credits of ‘44 credits’.
(b) Replace item (6) with the following:

Zoology courses that are not listed above must be approved in advance by the student’s academic advisor. Courses offered by other departments may be substituted for Zoology courses if approved in advance by the student’s academic advisor.

(11) In item 3. e. under the **Marine Biology** concentration make the following changes:

(a) Add total credits of ‘33 credits’.
(b) Delete item (3).
(c) Renumber items (4) and (5) to items (3) and (4) respectively.
(d) Replace item (3) with the following:

A minimum of at least 1 credit must be completed in an aquatic biology field experience, through consultation with the student’s academic advisor or students may choose one of the following courses (3 or 4 credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT 469</td>
<td>Biomonitoring of Streams and Rivers</td>
<td>3</td>
</tr>
<tr>
<td>PLB 424</td>
<td>Algal Biology</td>
<td>4</td>
</tr>
<tr>
<td>ZOL 440</td>
<td>Field Ecology and Evolution</td>
<td>4</td>
</tr>
</tbody>
</table>

Courses not listed above must have the approval of the student’s academic advisor.

(e) Replace item (4) with the following:

Additional credits in 300-400 level Zoology courses as needed to meet the requirement of at least 33 credits. Students may complete more than one course, or pair of courses, from item (2). Additional courses completed from item (2) may be counted as Zoology electives toward the 33 credits. Courses beyond those taken to satisfy items (1), (2), or (3) may come from other departments with the approval of the student’s academic advisor.

Effective Spring 2015.
COLLEGE OF NURSING

1. Change the requirements for the Bachelor of Science in Nursing degree in Nursing in the College of Nursing. The University Committee on Undergraduate Education (UCUE) approved this request at its September 18, 2014 meeting.

a. Change the heading Admission as a Junior to Admission to the College and replace with the following:

Admission to the College of Nursing is competitive. Minimal criteria for application to the College are:
1. Completion of at least 28 credits acceptable to the College of Nursing with a cumulative grade-point average of 2.75 or higher.
2. Completion of the following prenursing foundation courses:
   ANTR 350 Human Gross Anatomy for Pre-Health Professionals 3
   BS 161 Cell and Molecular Biology 3
   CEM 141 General Chemistry 4
   MTH 103 College Algebra 3
3. Completion of the alternative track to Integrative Studies in Biological and Physical Sciences referenced in item 1. under the Requirements for the Bachelor of Science in Nursing Degree in Nursing. Selection of the alternative track is highly recommended to attain requisite knowledge and skills.
4. A grade of 2.00 or higher in approved biological science, chemistry, microbiology and molecular genetics, human anatomy and physiology courses including required laboratory work or in courses completed in the alternative track to Integrative Studies in Biological and Physical Sciences and in Nursing 300.
5. Completion of the university’s Tier I writing requirement.
6. Satisfactory community service, work experience and letters of recommendation.

Applications for admission to the nursing major are reviewed twice each year. A limited number of positions are available during each selection period. Students may be admitted to the nursing major either for the fall semester or the spring semester.

Students who wish to be considered for admission to the nursing major must submit their applications to the College of Nursing by May 1 for admission to the fall semester and December 1 for admission to the spring semester. Applicants are encouraged to meet with a college undergraduate program advisor prior to the submission of their application materials.

b. Under the heading Requirements for the Bachelor of Science in Nursing Degree in Nursing make the following changes:

   (1) Replace item 1. with the following:
   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 in Nursing degree.
   The completion of Mathematics 103 and Statistics and Probability 200 referenced below will also satisfy the University mathematics requirement. Students who place into Statistics and Probability 200 on the mathematics placement test and complete Statistics and Probability 200 are not required to complete Mathematics 103.
   Students who are enrolled in the Nursing major leading to the Bachelor of Science in Nursing in the College of Nursing complete the Alternative Track to Integrative Studies in Biological and Physical Sciences that consists of the following courses: Biological Science 161, Chemistry 141 and 143, Microbiology and Molecular Genetics 201 and 302, Human Anatomy 350, and Physiology 250 or 310. The completion of Chemistry 143 and Microbiology and Molecular Genetics 302 satisfy the laboratory requirement.
   The University’s Tier II writing requirement for the Nursing major is met by completing Nursing 375, 460, and 481. Those courses are referenced in item 2. below.

(2) Replace item 2. with the following:

   a. All of the following Foundation courses with a minimum grade-point average of 2.0:
      CEM 143 Survey of Organic Chemistry 4
      HDFS 225 Lifespan Human Development in the Family 3
### PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNF 260</td>
<td>Principles of Human Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>MMG 201</td>
<td>Fundamentals of Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>MMG 302</td>
<td>Introductory Laboratory for General Microbiology</td>
<td>1</td>
</tr>
<tr>
<td>PHM 350</td>
<td>Introductory Human Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>PSL 250</td>
<td>Introductory Physiology</td>
<td>4</td>
</tr>
<tr>
<td>PSL 310</td>
<td>Physiology for Pre-Health Professionals</td>
<td>4</td>
</tr>
<tr>
<td>PSY 101</td>
<td>Introductory Psychology</td>
<td>4</td>
</tr>
<tr>
<td>STT 200</td>
<td>Statistical Methods</td>
<td>3</td>
</tr>
</tbody>
</table>

b. All of the following **Nursing** courses with a minimum grade-point average of 2.0:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 205</td>
<td>Introduction to Professional Nursing</td>
<td>4</td>
</tr>
<tr>
<td>NUR 301</td>
<td>Clinical Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>NUR 322</td>
<td>Nursing Care of Acute and Chronically Ill Patients I</td>
<td>4</td>
</tr>
<tr>
<td>NUR 324</td>
<td>Health Promotion and Disease and Injury Prevention I</td>
<td>3</td>
</tr>
<tr>
<td>NUR 332</td>
<td>Nursing Care of Acute and Chronically Ill Patients II</td>
<td>5</td>
</tr>
<tr>
<td>NUR 334</td>
<td>Health Promotion and Disease and Injury Prevention II</td>
<td>3</td>
</tr>
<tr>
<td>NUR 371</td>
<td>Behavioral Health Nursing</td>
<td>4</td>
</tr>
<tr>
<td>NUR 375</td>
<td>Research and Evidence-Based Practice</td>
<td>2</td>
</tr>
<tr>
<td>NUR 436</td>
<td>Nursing Care of Children and Their Families</td>
<td>2</td>
</tr>
<tr>
<td>NUR 437</td>
<td>Nursing Care of the Childbearing Family</td>
<td>2</td>
</tr>
<tr>
<td>NUR 445</td>
<td>Nursing Care of Acute and Critically Ill Patients</td>
<td>6</td>
</tr>
<tr>
<td>NUR 460</td>
<td>Leadership in Clinical Practice</td>
<td>5</td>
</tr>
<tr>
<td>NUR 471</td>
<td>Public Health Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NUR 475</td>
<td>Ethical Practice</td>
<td>2</td>
</tr>
<tr>
<td>NUR 481</td>
<td>Scholarship for Nursing Practice (W)</td>
<td>2</td>
</tr>
</tbody>
</table>

Nursing 300 or 301 must be completed within five years of program start.

**Effective Fall 2015.**
COLLEGE OF SOCIAL SCIENCE

1. Change the requirements for the Bachelor of Arts degree in Interdisciplinary Studies in Social Science: Social Science Education in the College of Social Science. The Teacher Education Council approved this request at its September 8, 2014 meeting.
   a. Under the heading Requirements for the Bachelor of Arts Degree in Interdisciplinary Studies in Social Science: Social Science Education make the following changes:
      (1) In item 3. e., change the credits from ‘21’ to ‘20’.
      (2) In item 3. e., change the credits of TE 408 from ‘6’ to ‘5’.
      (3) Add the following item 3. f.:
          The following course if the teaching major and minor are in different subject matter:
          TE 409 Crafting Teaching Practices in the Secondary Teaching Minor 1
          Effective Spring 2015.

2. Change the requirements for the Bachelor of Arts degree in History Education in the Department of History. The Teacher Education Council (TEC) approved this request at its September 8, 2014 meeting.
   a. Under the heading Requirements for the Bachelor of Arts Degree in History Education make the following changes:
      (1) In item 7. a. change the credits of TE 408 from ‘6’ to ‘5’ and add the following course:
          Students whose teaching major and minor are in different subject matter are also required to complete the following course:
          TE 409 Crafting Teaching Practices in the Secondary Teaching Minor 1
      (2) Replace item 7. b. with the following:
          b. All of the following courses for elementary majors:
             TE 301 Learners and Learning in Contexts – Elementary (W) 3
             TE 403 Teaching of Science to Diverse Learners – Elementary 3
             TE 404 Teaching of Social Studies to Diverse Learners – Elementary 3
             TE 405 Teaching of Language and Literacy to Diverse Learners – Elementary 3
             TE 406 Teaching of Mathematics to Diverse Learners – Elementary 3
          Effective Spring 2015.
PART II - NEW COURSES

DEPARTMENT OF ART, ART HISTORY, AND DESIGN

STA 880 Intermedia Workshop
Fall of every year. Spring of every year. 3 to 8 credits. R: Open to graduate students in the Master of Fine Arts in Studio Art or approval of department.
   Interdisciplinary research, how knowledge is acquired and produced from disciplines outside of the fine arts and applied to art production.
   Effective Fall 2014

COLLEGE OF ARTS AND LETTERS

AAAS 100 Race and Community in Local to Global Perspective
Fall of every year. 3(3-0)
   Effective Fall 2014

AAAS 390 Special Topics in Black/Africana Studies
Spring of every year. 3(3-0) R: Open to students in the African American and African Studies Specialization.
   Special topics in African American, African, and African Diaspora studies. Topics are selected from sub-genres of Black/Africana Studies.
   Effective Fall 2014

DEPARTMENT OF BIOSYSTEMS AND AGRICULTURAL ENGINEERING

AE 101 Electrical Wiring Maintenance for Residential and Agricultural Facilities
Fall of every year. Spring of every year. Summer of every year. 2(2-0) R: Not open to students in the Electrical Technology Major. Not open to students with credit in AE 072.
   Introduction to electrical circuit maintenance, safety issues, and installation practices for residential and agricultural facilities.
   Effective Fall 2014

AE 102 Electrical Lighting for Residential and Agricultural Facilities
Fall of every year. Spring of every year. Summer of every year. 2(2-0) R: Not open to students in the Electrical Technology Major. Not open to students with credit in AE 085.
   Introduction to electrical lighting sources, efficacies, productivity enhancement, and basic lighting design practices for residential and agricultural facilities.
   Effective Fall 2014

AE 151 Fabrication Technology
Fall of every year. Spring of every year. 2(1-2)
   Introduction to principles and practices for shop fabrication including assembly options, fabrication nomenclature, drawing interpretation, 3D printing, tool and equipment use, welding and safety practices.
   SA: AE 150
   Effective Fall 2015
PART II – NEW COURSES

AE 153  Engine and Equipment Technology  
Spring of every year. 2(2-2)  
SA: AE 053, AE 252  
Effective Fall 2015

THE ELI BROAD COLLEGE OF BUSINESS

BUS 170  Business Model Development: The Hive Startup  
Fall of every year. Spring of every year. Summer of every year. 1 credit.  
Moving new venture business ideas to implementation in an idea and collection laboratory.  
Effective Fall 2014

COLLEGE OF COMMUNICATION ARTS AND SCIENCES

CAS 994  Effective Interdisciplinary Research Collaborations  
On Demand. 3(3-0) Interdepartmental with Engineering and Nursing. RB: Students should have background or expertise in technology, nursing, health, and/or communication. Students should have applied research interests. R: Open to graduate students in the College of Communication Arts and Sciences and open to graduate students in the College of Engineering and open to graduate students in the College of Nursing.  
Interdisciplinary research methods, techniques, approaches, and funding. Applied research on issues that crosscut communication, nursing, and engineering.  
Request the use of ET-Extension to postpone grading.  
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.  
Effective Spring 2015

DEPARTMENT OF COMMUNITY SUSTAINABILITY

CSUS 215  International Development and Sustainability  
Spring of every year. 3(3-0)  
Theories, concepts and themes in international development and sustainability.  
Effective Spring 2015

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CSE 898  Master's Project  
Spring of every year. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open to students in the Department of Computer Science and Engineering. Approval of department.  
In depth student project where the student performs original research, research replication, or survey and reporting on a topic such as system design and development, or system conversion or installation.  
Effective Fall 2014

COLLEGE OF ENGINEERING

AESC 290  Independent Study in Applied Engineering Sciences  
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 or sophomores in the Applied Engineering Sciences Major. Approval of department.  
Supervised individual study in an area of applied engineering sciences.  
Effective Fall 2014
AESC 291  Selected Topics in Applied Engineering Sciences
Fall of every year. Spring of every year. 1 to 4 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Open to freshmen or sophomores. Approval of department. Topics selected to supplement and enrich existing courses and lead to the development of new courses.
Effective Fall 2014

AESC 490  Independent Study in Applied Engineering Sciences
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 juniors or seniors. Approval of department. Supervised individual study in an area of applied engineering sciences.
Effective Fall 2014

DEPARTMENT OF ENGLISH

ENG 319  Readings in Michigan Literature
Spring of every year. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. P: {(ENG 126 or ENG 129 or ENG 140 or ENG 142 or ENG 153 or ENG 204 or ENG 205 or ENG 206 or ENG 218 or ENG 265) and (ENG 126 or ENG 129 or ENG 140 or ENG 142 or ENG 153 or ENG 204 or ENG 205 or ENG 206 or ENG 218 or ENG 265)} or ENG 210 RB: Six credits of literature R: Not open to freshmen. Extensive readings of texts by Michigan writers across genres, historical periods, media, and/or different regions of the state.
Effective Spring 2015

DEPARTMENT OF FAMILY AND COMMUNITY MEDICINE

FCM 591  Osteopathic Manipulative Medicine in Hospice
Fall of every year. Spring of every year. Summer of every year. 1 to 24 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: ANTR 510 R: Open to students in the College of Osteopathic Medicine. Prepare preclerkship students to evaluate and treat hospice patients using osteopathic manipulative medicine. Request the use of the Pass-No Grade (P-N) system.
Effective Fall 2014

COLLEGE OF HUMAN MEDICINE

HM 816  Human Risk Assessment and Management in Public Health
Fall of even years. 3(3-0) P: HM 802 and HM 803 or approval of college RB: Coursework in statistics and probability assessment. R: Open to students in the Public Health Major or approval of college. Human risk assessment. Fundamentals of risk assessment in public health. Existing tools and data sources for conducting risk assessment in public health practice. Use of risk assessment to inform programs and policies.
Effective Summer 2014
PART II – NEW COURSES

HM 817  Population Healthcare Analytics  
Fall of even years. 3(3-0) RB: Background in public health, health care, or other health related fields. R: Open to students in the Public Health Major or approval of college. 
Introduction to healthcare analytics, the healthcare industry and the synergy between the two. Data manipulation, analyses and presentation of results. Highlights peculiarities, irregularities, and limitations of the healthcare industry and related data. Analytic tools and techniques used to create descriptive reports and predictive insights. Effective Summer 2014

DEPARTMENT OF KINESIOLOGY

KIN 228  Clinical Rotation and Skills Introduction in Athletic Training  
Spring of every year. 1(1-1) P: (KIN 125 or concurrently) or (KIN 126 or concurrently) or (KIN 127 or concurrently) or (KIN 320 or concurrently) R: Open to students in the Athletic Training Major. 
Beginning progression of the basic hands-on clinical skills utilized by athletic trainers. Offered second half of semester. Effective Spring 2015

KIN 402  Coaching for Strength, Conditioning and Fitness  
Summer of every year. 2(2-0) R: Not open to freshmen. 
Basic and advanced theoretical and practical principles of coaching/training for increased fitness and/or sports performance. Individual applications to diverse populations. 
SA: KIN 300L Effective Spring 2015

MSU COLLEGE OF LAW

LAW 501M  Commercial Transactions Survey  
Fall of every year. Spring of every year. 0 to 6 credits. P: LAW 530B R: Open to Law students or master of laws students or law lifelong students or law non-degree students. Not open to students with credit in LAW 501F or LAW 501G. 
Survey of sales of goods and payment systems under the Uniform Commercial Code. Effective Fall 2014

LAW 530Q  Research, Writing and Analysis: Social Justice Perspectives 
Fall of every year. 0 to 6 credits. R: Open to Law students or master of laws students or law lifelong students or law non-degree students. Not open to students with credit in LAW 530D or LAW 530E or LAW 530N. 
Written projects with a social justice focus. Effective Fall 2014

LAW 605A  Hospitality Law  
Fall of every year. Spring of every year. 0 to 6 credits. P: LAW 500R and LAW 530B R: Open to Law students or master of laws students or law lifelong students or law non-degree students. 
Lodging, food and alcohol legal issues. 
Effective Fall 2014

LAW 625D  Law Externship Seminar  
Fall of every year. Spring of every year. Summer of every year. 0 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open to Law students or master of laws students or law lifelong students or law non-degree students. 
Classroom component for students participating in law externships. Request the use of the Pass-Fail Grade (P-F) system. Effective Summer 2014

LAW 631F  Chance at Childhood Clinic I  
Fall of every year. Spring of every year. 0 to 6 credits. P: (LAW 530D or LAW 530E or LAW 530N or LAW 530Q) and LAW 530J R: Open to Law students or master of laws students or law lifelong students or law non-degree students. 
Child advocacy Effective Fall 2014
LAW 631G  Chance at Childhood Clinic II  
Fall of every year. Spring of every year. 0 to 6 credits. P: LAW 631F  
R: Open to Law students or master of laws students or law lifelong students or law non-degree students. 
Child advocacy  
Effective Fall 2014

DEPARTMENT OF LINGUISTICS AND GERMANIC, SLAVIC, ASIAN AND AFRICAN LANGUAGES

ESL 291  Special Topics in Academic English  
On Demand. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course.  
RB: ESL 094  
R: Approval of department.  
Special topics supplementing regular course offerings.  
Request the use of the Pass-No Grade (P-N) system.  
Effective Fall 2014

FLT 807  Foreign Language Teaching Methods  
Fall of every year. Summer of every year. 3(3-0)  
R: Open to graduate students in the Foreign Language Teaching Major or approval of department.  
History of methods in foreign language instruction. Current practices in language teaching, materials design, and classroom management. Techniques in teaching culture, listening, speaking, reading, and writing at various levels of student proficiency in the foreign language. How to motivate and maintain motivation. Strategies instruction and targeting advanced proficiency.  
Effective Fall 2014

FLT 808  Assessment for Foreign Language Teaching  
Spring of every year. 3(3-0)  
R: Open to graduate students in the Foreign Language Teaching Major or approval of department. Not open to students with credit in LLT 808.  
Effective Fall 2014

FLT 841  Topics in Foreign Language Teaching  
Fall of odd years. 3(3-0)  
R: Open to graduate students in the Foreign Language Teaching Major or approval of department. Not open to students with credit in LLT 841.  
Selected topics and issues in foreign language learning and teaching.  
Effective Fall 2014

FLT 842  Teaching Reading in a Foreign Language  
Fall of even years. 3(3-0)  
R: Open to graduate students in the Foreign Language Teaching Major or approval of department. Not open to students with credit in LLT 809.  
Topics and issues in teaching reading in a foreign language. Vocabulary development, syntax, fluency in reading, integrating reading skills with listening, speaking, and writing. Measurement of reading comprehension. Age appropriate reading instruction and literacy development. L1 transfer issues. Teaching reading to learners not literate in their L1.  
Effective Fall 2014

FLT 860  Foreign Language Acquisition  
Spring of every year. Summer of every year. 3(3-0)  
R: Open to graduate students in the Foreign Language Teaching Major or approval of department. Not open to students with credit in LLT 860.  
Factors in foreign language learning such as age, motivation, language input and interaction, social influences, the role of the native language, and language universals.  
Effective Fall 2014
PART II – NEW COURSES

FLT 881  Teaching Foreign Language with Technology
Fall of every year. 3(3-0) R: Open to graduate students in the Foreign Language Teaching Major or approval of department. Not open to students with credit in AL 881.
Effective Fall 2014

FLT 885  Experiential Module in Foreign Language Teaching
Fall of every year. Spring of every year. Summer of every year. 2 to 5 credits. A student may earn a maximum of 5 credits in all enrollments for this course. R: Open to graduate students in the Foreign Language Teaching Major. Approval of department. Not open to students with credit in LLT 890.
Experience in foreign language teaching and learning. Action research, community outreach, immersion, program administration, professional seminar, teaching practicum, technology enhancement, or service learning.
Effective Fall 2014

FLT 898  Master’s Comprehensive Foreign Language Teaching Portfolio Examination
Fall of every year. Spring of every year. Summer of every year. 1(1-0) R: Open to graduate students in the Foreign Language Teaching Major. Approval of department. Not open to students with credit in LLT 899.
Final comprehensive portfolio exam.
Effective Fall 2014

DEPARTMENT OF MARKETING

MKT 230  The Entrepreneurial Mindset
Summer of every year. 3(2-0) P: BUS 190 R: Not open to students in the Entrepreneurship Specialization.
Effective Fall 2015

MKT 231  Venture Launch
Fall of every year. 3(2-0) P: MKT 230
Creating a minimum viable product. Market testing. Building a basic business model. Developing and executing a launch plan.
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 2015

COLLEGE OF NURSING

NUR 205  Introduction to Professional Nursing
Fall of every year. Spring of every year. Summer of every year. 4(2-2) P: CEM 143 and PSY 101 RB: Not open to RN-BSN students. R: Open to students in the Nursing Major. C: NUR 300 concurrently or NUR 301 concurrently.
Principles and practices of holistic nursing care that allow for analysis of a comprehensive collection of patient data to provide basic clinical care to the adult population.
Effective Fall 2015

NUR 301  Clinical Pathophysiology
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)} and ANTR 350
How disrupting normal structures and functions of the human body leads to disease processes from the cellular to the multisystem level. Critical examination of the mechanisms underlying signs and symptoms of diseases.
Effective Fall 2015
PART II – NEW COURSES

NUR 322  Nursing Care of Acute and Chronically Ill Patients I
Fall of every year. Spring of every year. Summer of every year. 4(2-2) P: NUR 301 or NUR 300 C: NUR 205 concurrently and PHM 350 concurrently.
Focuses on using the nursing process and clinical judgment at a beginning level to provide care for acute and chronically ill patients.
Effective Fall 2015

NUR 324  Health Promotion and Disease and Injury Prevention I
Fall of every year. Spring of every year. Summer of every year. 3(2-1) P: HDFS 225 and HNF 260 C: NUR 205 concurrently and NUR 322 concurrently.
Principles and practices of health education, health promotion/behavior change, and health literacy through understanding epidemiology, determinants of health, and protective and predictive factors of health and well-being.
Effective Fall 2015

NUR 332  Nursing Care of Acute and Chronically Ill Patients II
Fall of every year. Spring of every year. 5(2-3) P: (NUR 322 and NUR 324) and (MMG 201 or MMG 301) C: NUR 334 concurrently and NUR 371 concurrently.
Focuses on using the nursing process and clinical judgment at an intermediate level to manage care for acute and chronically ill patients.
Effective Fall 2015

NUR 334  Health Promotion and Disease and Injury Prevention II
Fall of every year. Spring of every year. 3(2-1) P: NUR 322 and NUR 324 C: NUR 332 concurrently and NUR 371 concurrently.
Principles and practices of health promotion, risk reduction, and injury prevention to provide nursing care for individuals, families, and communities across the lifespan.
Effective Fall 2015

NUR 371  Behavioral Health Nursing
Fall of every year. Spring of every year. 4(2-2) P: NUR 322 and NUR 324 C: NUR 332 concurrently and NUR 334 concurrently.
Extension of foundational social science concepts into nursing therapeutics aimed at behavioral health and the care of persons with mental illnesses.
Effective Fall 2015

NUR 375  Research and Evidence-Based Practice
Fall of every year. Summer of every year. 2(2-0) P: (STT 200 or STT 201) and completion of Tier I writing requirement C: NUR 205 concurrently and NUR 322 concurrently.
Introduction to basic research methodology and how it informs evidence-based nursing practice.
Effective Fall 2015

NUR 436  Nursing Care of Children and Their Families
Fall of every year. Spring of every year. 2(1-1) P: NUR 332 and NUR 334 and NUR 371 and NUR 375 C: NUR 437 concurrently.
Theoretical concepts and clinical application of nursing care for ill children and adolescents using a holistic perspective in varied settings.
Effective Fall 2015

NUR 437  Nursing Care of the Childbearing Family
Fall of every year. Spring of every year. 2(1-1) P: NUR 332 and NUR 334 and NUR 371 and NUR 375 C: NUR 436 concurrently and NUR 445 concurrently.
Theoretical concepts and clinical application of nursing care for the normal and at risk childbearing families using a holistic perspective in varied settings.
Effective Fall 2015

NUR 445  Nursing Care of Acute and Critically Ill Patients
Fall of every year. Spring of every year. 6(3-3) P: NUR 332 and NUR 334 and NUR 371 and NUR 375 C: NUR 436 concurrently and NUR 437 concurrently.
Focuses on using the nursing process and clinical judgment at an advanced level to manage and evaluate care for acute and critically ill patients.
Effective Fall 2015
NUR 471  Public Health Nursing  
Fall of every year. Spring of every year. Summer of every year. 3(2-1) P: NUR 445 and NUR 436 and NUR 437 C: NUR 475 concurrently.  
Use of the public health system to care for populations, including application of the principles and practices of public health nursing.  
Effective Fall 2015  

NUR 475  Ethical Practice  
Fall of every year. Spring of every year. Summer of every year. 2(2-0) C: NUR 460 concurrently.  
Ethical theory, reasoning, and decision-making with application to clinical practice both as ethical comportment in clinical relationships and resolution of situations of ethical uncertainty and conflicts.  
Effective Fall 2015  

NUR 481  Scholarship for Nursing Practice (W)  
Fall of every year. Spring of every year. Summer of every year. 2(2-0) P: (NUR 445 and NUR 436 and NUR 437) and completion of Tier I writing requirement C: NUR 475 concurrently.  
Examines the dynamic interrelationship among professional scholarly nursing practice, the health and wellness of diverse populations and high quality safe health care organizations.  
Effective Fall 2015  

COLLEGE OF OSTEOPATHIC MEDICINE  

OST 602  Primary Care Ambulatory Clerkship  
Fall of every year. Spring of every year. Summer of every year. 1 to 36 credits. A student may earn a maximum of 36 credits in all enrollments for this course.  
REINSTATEMENT  
A 24-week ambulatory care continuity experience involving 12 weeks in a multidisciplinary environment (family medicine, pediatrics, and internal medicine), 4 weeks in family medicine and 8 weeks in specialty areas (internal medicine, surgery, pediatrics, and obstetrics and gynecology). Didactic sessions are scheduled concurrently.  
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 2 semesters after the end of the semester of enrollment.  
Effective Fall 2014  

DEPARTMENT OF SMALL ANIMAL CLINICAL SCIENCES  

SCS 564  Applied Small Animal Nutrition  
Fall 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.  
REINSTATEMENT  
Principles of life stage nutrition and making dietary recommendations for healthy and sick small animal patients.  
Effective Fall 2014  

DEPARTMENT OF TEACHER EDUCATION  

TE 409  Crafting Teaching Practices in the Secondary Teaching Minor  
Spring of every year. 1(1-0) A student may earn a maximum of 5 credits in all enrollments for this course. P: (TE 407 and (TE 408 or concurrently)) and completion of Tier I writing requirement R: Not open to freshmen or sophomores and open to students in the Secondary Teacher Certification Program (Admitted).  
Deciding what should be taught for specific disciplines at the secondary level (7-12).  
Discipline-specific strategies for gathering data on learners to inform content and instructional decisions. Discipline-specific instructional strategies and student management and safety strategies.  
Effective Fall 2014
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Schedule</th>
<th>Credits</th>
<th>Restrictions</th>
<th>Description</th>
<th>Effective Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>TE 430</td>
<td>Introduction to Arts in the Classroom</td>
<td>Fall of every year. Spring of every year. 3(3-0) R: Open to undergraduate students in the College of Education.</td>
<td></td>
<td>R: Open to undergraduate students in the College of Education.</td>
<td>Introduction to the power of teaching and learning through the arts. Explore how performing and visual arts can reach multiple learning styles and nurture the creative process of children through its innate variety of educational methods and expressions.</td>
<td>Spring 2015</td>
</tr>
<tr>
<td>TE 431</td>
<td>Learning Through Drama</td>
<td>Fall of every year. 3(3-0) R: Open to undergraduate students in the College of Education.</td>
<td></td>
<td>R: Open to undergraduate students in the College of Education.</td>
<td>Introduction to the power of teaching and learning through drama. Explores how creative dramatics, and other art forms, can reach multiple learning styles through its innate variety of educational strategies and expressions.</td>
<td>Fall 2014</td>
</tr>
<tr>
<td>TE 432</td>
<td>Learning Through Movement</td>
<td>Spring of every year. 3(3-0) R: Open to undergraduate students in the College of Education.</td>
<td></td>
<td>R: Open to undergraduate students in the College of Education.</td>
<td>Introduction to the power of teaching and learning through movement and dance. Explores how movement and dance can reach multiple learning styles through its innate variety of educational strategies and expressions.</td>
<td>Spring 2015</td>
</tr>
</tbody>
</table>
PART III – COURSE CHANGES

DEPARTMENT OF ACCOUNTING AND INFORMATION SYSTEMS

ACC 305  Intermediate Accounting for Finance Majors
Fall of every year. Spring of every year. 3(3-0) P: ACC 202 R: Open to students in the Eli Broad College of Business and The Eli Broad Graduate School of Management and not open to students in the Department of Accounting and Information Systems or in the School of Hospitality Business.
R: Open to juniors or seniors in the Finance Major or in the General Management Major or in the Human Resource Management Major or in the Marketing Major or in the Supply Chain Management Major.
Major measurement, valuation, and reporting concepts and procedures underlying the assets, liabilities, owners' equity, revenues, and expenses contained in financial statements. Analysis, interpretation, and use of financial statements.
Effectively Spring 2013  Effective Spring 2016

ACC 999  Doctoral Dissertation Research
Fall of every year. Spring of every year. Summer of every year. 1 to 24 credits. A student may earn a maximum of 99 credits in all enrollments for this course. A student may earn a maximum of 36 credits in all enrollments for this course. R: Open only to doctoral students in the Accounting major.
Doctoral dissertation research. Request the use of the Pass-No Grade (P-N) system.
Effectively Fall 1992 Effective Fall 2014

DEPARTMENT OF ADVERTISING AND PUBLIC RELATIONS

ADV 830  Seminar in Social Marketing
Spring of every year. 3(3-0) Interdepartmental with Marketing.
In-depth reading and critical thinking about theories and principles in social marketing. Application of theory and empirical research to evaluating and planning social marketing programs.
Effectively Summer 2011 Effective Fall 2014

RET 402  Public Relations Topics in Retailing
Fall of every year. Spring of every year. Summer of every year. 1(1-0) R: Open to undergraduate students in the Public Relations Specialization. R: Open to undergraduate students in the Public Relations Specialization. A student may earn a maximum of 6 credits in any or all enrollments in ADV 402, COM 402, JRN 402, or RET 402.
Current topics related to the practice of public relations.
DELETE COURSE
Effective Spring 2015

RET 490  Independent Study
Fall of every year. Spring of every year. Summer of every year. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Not open to freshmen or sophomores. Approval of department.
Supervised individual study in an area of retailing.
DELETE COURSE
Effective Spring 2015

RET 492  Special Topics in Retailing
Fall of every year. Spring of every year. Summer of every year. 1 to 9 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Open to seniors or graduate students.
Issues and problems in contemporary retailing. Effects of new technology and processes on retail practice.
DELETE COURSE
Effective Spring 2015
PART III – COURSE CHANGES

RET 493  Internship in Retailing
Fall of every year. Spring of every year. Summer of every year. 3 to 8 credits. P: RET 362 or MGT 325 R: Approval of department.
Supervised professional experience in a selected company which cooperates in offering students structured management activities.
Request the use of the Pass-No Grade (P-N) system.
SA: HED 493A
DELETE COURSE
Effective Spring 2015

COLLEGE OF ARTS AND LETTERS

AAAS 300  Survey in Africana Studies
Fall of every year. Detroit, Detroit, Detroit Summer of every year. Detroit, Detroit, Detroit 3(3-0) R: Approval of department.
PCR  Core conceptual elements of Africana Studies discipline and peoples (African Americans, Africans and African Diasporas), including topics in race, identity, the Black condition, representational discourses, discrimination, oppression, resistance and alternative agency. Field trip required.
Effective Summer 2012 Effective Spring 2014

AAAS 490  Independent Study in African American and African Studies
Fall of every year. Spring of every year. Summer of every year. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P: Completion of Tier I Writing Requirement R: Open to undergraduate students in the African American and African Studies Specialization or in the African American History and Culture Specialization.
PCR  Independent study in select and specialized topics in African American, African Diaspora and African Studies: special projects, directed reading and research.
Effective Summer 2012 Effective Spring 2014

AAAS 495  Advanced Research in African American and African Studies
PCR  Advanced undergraduate research course in African American, African and African Diaspora Studies. Review of interdisciplinary topics that inform these Africana regions, including slavery, race, colonialism, civil and human rights, identity and discourse and political philosophies, including Black Nationalism African Centered paradigms, and Black Feminism. Participation in the University Undergraduate Research and Arts Forum. Field trip required.
SA: AL 495
Effective Fall 2012 Effective Spring 2014

AAAS 999  Doctoral Dissertation Research
Fall of every year. Spring of every year. Summer of every year. 1 to 6 credits. A student may earn a maximum of 50 credits in all enrollments for this course. A student may earn a maximum of 36 credits in all enrollments for this course. P: AAAS 829 and AAAS 830 and AAAS 831 and AAAS 832 R: Open to graduate students in the African American and African Studies Major.
Doctoral dissertation research.
Request the use of the Pass-No Grade (P-N) system.
Effective Summer 2013 Effective Fall 2014

AL 999  Doctoral Dissertation Research
Fall of every year. Spring of every year. Summer of every year. 1 to 12 credits. A student may earn a maximum of 50 credits in all enrollments for this course. A student may earn a maximum of 36 credits in all enrollments for this course. R: Open to doctoral students in the College of Arts and Letters.
Doctoral dissertation research.
Request the use of the Pass-No Grade (P-N) system.
Effective Fall 1996 Effective Fall 2014
AMS 999  Doctoral Dissertation Research
Fall of every year. Spring of every year. Summer of every year. 1 to 12 credits. A student may earn a maximum of 99 credits in all enrollments for this course. A student may earn a maximum of 36 credits in all enrollments for this course. R: Approval of college.
Doctoral dissertation research.
Request the use of the Pass-No Grade (P-N) system.
Effective Summer 2002 Effective Fall 2014

BIOMEDICAL LABORATORY DIAGNOSTICS PROGRAM

BLD 204  Mechanisms of Disease
Spring of every year. 3(3-0) P: BS 161 or LB 145 or BS 181H
PCR Pathophysiological mechanisms of diseases. Selected applications to organ system pathology.
SA: MT 204
Effective Fall 2011 Effective Fall 2014

BLD 213  Application of Clinical Laboratory Principles
Fall of every year. Summer of every year. 2(1-3) 2(2-2) P: (CEM 141 and CEM 161) or (LB 171 and LB 171L) RB: BS 171 R: Open to students in the Biomedical Laboratory Science major or in the Lyman Briggs Biomedical Laboratory Science Coordinate major or in the Clinical Laboratory Sciences major or in the Diagnostic Molecular Science major or in the Lyman Briggs Diagnostic Molecular Science Coordinate Major or in the Human Biology major. R: Open to students in the Human Biology Major or in the Biomedical Laboratory Science Major or in the Clinical Laboratory Sciences Major or in the Lyman Briggs Biomedical Laboratory Science Coordinate Major.
PCR Lab safety and standards of good laboratory practice including specimen handling and processing. Application of technologies and techniques to the performance of clinical diagnostic testing.
SA: MT 213
Effective Fall 2011 Effective Fall 2014

BLD 220  Preparing for a Health Professions Career
Spring of every year. 1(1-0) R: Open to sophomores or juniors.
PCR Development of skills needed for success in a health professions career. Historical, economic, sociological and ethical perspectives on the U.S. health professions with focus on medical laboratory careers.
SA: MT 220
Effective Fall 2011 Effective Fall 2014

BLD 324  Fundamentals of Hematology, Hemostasis, and Urinalysis
Fall of every year. 3(3-0) P: (BS 161 or concurrently) or (LB 145 or concurrently) or (BS 181H or concurrently) RB: (PSL 310 or concurrently) or (PSL 250 or concurrently) or (PSL 431 or concurrently)
PCR Physiology and biochemistry of normal hematologic, hemostatic, and urinary systems. Principles of diagnostic assays to detect diseases affecting those systems.
SA: MT 324
Effective Fall 2011 Effective Fall 2014

BLD 324L Introductory Laboratory in Hematology, Hemostasis and Urinalysis
Fall of every year. 1(0-3) P: BLD 324 or concurrently R: Open to students in the Clinical Laboratory Sciences major.
PCR Routine laboratory assays used to assess the health of the hematological, hemostatic, and urinary systems.
Effective Fall 2010 Effective Fall 2014
Part III – Course Changes

BLD 413 Advanced Biomedical Laboratory Diagnostics Laboratory
Spring of every year. 1(0-3) P: BLD 213 and BLD 324 and BLD 434 and BLD 435 and MMG 463
RB: BLD 424 and BLD 430 R: Open to students in the Diagnostic Molecular Science major or in the
Biomedical Laboratory Science major or in the Lyman Briggs Diagnostic Molecular Science
Coordinate Major or in the Lyman Briggs Biomedical Science Coordinate major.

PCR Diagnostic assays across various disciplines within the clinical laboratory (microbiology,
immunohematology, hematology and molecular diagnostics) as well as data interpretation
and problem solving skills.
Effective Fall 2014 Effective Fall 2014

BLD 414 Clinical Chemistry Analysis and Practice
Spring of every year. 3(3-0) P: (STT 200 or concurrently) or (STT 201 or concurrently) or (STT 231
or concurrently) or (STT 351 or concurrently) or (STT 421 or concurrently) P: BLD 213 and (STT
200 or STT 201 or STT 231 or STT 351 or STT 421) RB: BLD 213 and PHY 234 RB: PHY 231 or
LB 273 R: Open to students in the Biomedical Laboratory Science major or in the Lyman Briggs
Biomedical Science Coordinate major. Not open to students with credit in BLD 417.

PCR Concepts and principles of analytic methods commonly used in the clinical laboratory.
Qualitative and quantitative features of instrumental analysis. Issues of quality control and
quality assurance, method evaluation and standards of laboratory practice.
SA: MT 417 Effective Fall 2011 Effective Fall 2014

BLD 416 Clinical Chemistry
Fall of every year. 4(4-0) P: BLD 213 and (BMB 401 or BMB 461) and (PSL 250 or PSL 310 or PSL
431) RB: BLD 414 or (BLD 417 and CEM 333)

PCR Correlation of laboratory test results with normal physiology and biochemistry and with
Therapeutic drug monitoring, and toxicology.
SA: MT 416 Effective Fall 2014

BLD 417 Quality Processes in Diagnostic Laboratory Testing
Spring of every year. 2(2-0) P: (STT 200 or concurrently) or (STT 201 or concurrently) or (STT 231
or concurrently) or (STT 351 or concurrently) or (STT 421 or concurrently) P: BLD 213 and (STT
200 or STT 201 or STT 231 or STT 351 or STT 421) RB: BLD 213 and PHY 231 RB: PHY 231 or
LB 273 R: Open to students or students in the Clinical Laboratory Sciences major or in the
Diagnostic Molecular Science major or in the Lyman Briggs Diagnostic Molecular Science
Coordinate Major. R: Open to students in the Clinical Laboratory Sciences Major. Not open to
students with credit in BLD 414.

PCR Statistical methods for validating diagnostic laboratory tests including quality control
processes, proficiency testing, method evaluation, related regulatory requirements,
laboratory information systems, and laboratory mathematics.
SA: MT 414, MT 417 Effective Spring 2010 Effective Fall 2014

BLD 424 Advanced Hematology, Hemostasis and Urinalysis
Spring of every year. 2(2-0) P: BLD 324 RB: ((PSL 310 or concurrently) or (PSL 250 or
concurrently) or PSL 431) and (BLD 416 and (BLD 430 or concurrently) and BLD 434 and (BLD
435 or concurrently))

PCR Etiology and pathogenesis of diseases of the hematologic, hemostatic and urinary
systems including anemias, leukemias, and hemophilias. Diagnostic testing for such
diseases.
SA: MT 422, MT 424 Effective Fall 2011 Effective Fall 2014

BLD 424L Advanced Laboratory in Hematology, Hemostasis, and Urinalysis
Spring of every year. 1(0-3) P: BLD 324L and (BLD 424 or concurrently)

PCR Specialized and advanced assays used in the diagnosis of diseases of the hematological,
hemostatic, and urinary systems.
Effective Summer 2008 Effective Fall 2014
PART III – COURSE CHANGES

BLD 430  Molecular Laboratory Diagnostics
Spring of every year. 2(2-0) P: BS 161 or LB 145 or BS 181H
PCR Concepts and principles of molecular analysis applied to medical diagnostics and related applications.
SA: MT 430 Effective Fall 2011 Effective Fall 2014

BLD 433  Clinical Immunology and Immunohematology Laboratory
Spring of every year. 1(0-3) P: BLD 213 and (BLD 435 or concurrently) R: Open to students in the Clinical Laboratory Sciences major.
PCR Immunologic methods for disease detection. Methods of blood typing and pre-transfusion testing.
SA: MT 433 Effective Fall 2011 Effective Fall 2014

BLD 434  Clinical Immunology
Fall of every year. Grand Rapids, Grand Rapids, Grand Rapids, Grand Rapids, Grand Rapids, Grand Rapids Spring of every year. Grand Rapids, Grand Rapids, Grand Rapids, Grand Rapids, Grand Rapids, Grand Rapids Summer of every year. Grand Rapids, Grand Rapids, Grand Rapids, Grand Rapids, Grand Rapids, Grand Rapids 3(3-0) P: BS 161 or LB 145 or BS 181H RB: BLD 204 and BLD 213 RB: (PSL 310 or PSL 250 or PSL 431) and (BLD 204 and BLD 213 and MMG 201)
Not open to students with credit in MMG 451.
PCR Concepts of innate, cellular, and humoral immunity. Immunodeficiency and autoimmunity. Principles and applications of immunoassays in medical laboratories.
SA: MT 432, MT 434 Effective Fall 2011 Effective Fall 2014

BLD 435  Transfusion and Transplantation Medicine
Spring of every year. 3(3-0) P: BLD 434 or MMG 451
PCR Principles and practice of transfusion medicine including blood typing. Principles and practices of transplantation medicine. Transplantation immunology, organ procurement, and rejection detection.
Effective Fall 2011 Effective Fall 2014

BLD 436  Principles of Diagnostic Molecular Science
Spring of every year. 2(2-0) P: BMB 461 and (BS 161 or LB 145 or BS 181H) and ZOL 341 Not open to students with credit in BLD 830. C: BMB 462 concurrently.
PCR Principles and techniques of molecular diagnostic assays including applicable regulations.
SA: MT 436 Effective Fall 2011 Effective Fall 2014

BLD 437  Clinical Applications of Diagnostic Molecular Science
Spring of every year. 2(2-0) P: BLD 436 Not open to students with credit in BLD 831.
PCR Application of molecular diagnostic methods in clinical and other types of laboratory disciplines.
SA: MT 437 Effective Summer 2008 Effective Fall 2014

BLD 438  Molecular Diagnostic Laboratory
Fall of every year. 2(0-6) P: BLD 436 Not open to students with credit in BLD 832.
PCR Laboratory in molecular techniques with emphasis on clinical and diagnostic applications.
SA: MT 438 Effective Summer 2008 Effective Fall 2014

BLD 442  Education and Management in the Clinical Laboratory
Spring of every year. 2(2-0) P: (MTH 103 or MTH 116) or (STT 200 or STT 201 or STT 231 or STT 351 or STT 421) RB: BLD 220 R: Open to students in the Clinical Laboratory Sciences major or in the Diagnostic Molecular Science major. R: Open to students in the Clinical Laboratory Sciences Major.
PCR Basic principles and concepts in education and management in clinical laboratories. Systematic approach to instructional design, delivery and evaluation. Principles of leadership, personnel management, fiscal management, and regulatory compliance.
SA: MT 442 Effective Summer 2012 Effective Fall 2014
PART III – COURSE CHANGES

BLD 450  Eukaryotic Pathogens
Spring of every year. 3(3-0) P: BS 161 or LB 145 or BS 181H P: (BS 161 or LB 145 or BS 181H) and (CEM 141 or CEM 151 or CEM 181H or LB 171) RB: MMG 201 or MMG 301
PCR  Medically important fungi and parasites. Host-parasite relationships, life cycles, culture, identification, and associated diseases.
SA: MT 450
Effective Fall 2011  Effective Fall 2014

BLD 455  Integrating Clinical Laboratory Science Discipline (W)
Fall of every year. Spring of every year. 2(2-0) P: ((BLD 324 or concurrently) or (BLD 417 or concurrently) or (BLD 416 or concurrently) or (MMG 463 or concurrently) or (BLD 435 or concurrently) or (CEM 332 or concurrently) or (BLD 436 or concurrently)) and completion of Tier I writing requirement P: ((BLD 324 or concurrently) or (BLD 417 or concurrently) or (BLD 416 or concurrently) or (MMG 463 or concurrently) or (BLD 435 or concurrently) or (BLD 436 or concurrently)) and completion of Tier I writing requirement R: Open to undergraduate students in the Clinical Laboratory Sciences major or in the Biomedical Laboratory Science major.
PCR  Problem oriented approach integrating topics from biomedical laboratory diagnostics courses with emphasis on writing experience in the major and on critical thinking skills.
SA: MT 455
Effective Fall 2011  Effective Fall 2014

BLD 471  Advanced Clinical Chemistry Laboratory
Fall of every year. Spring of every year. Summer of every year. 3 credits. P: CEM 333 R: Open to students in the Clinical Laboratory Sciences major.
PCR  Application and integration of theory and technical skills in clinical chemistry and biochemistry.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 3 semesters after the end of the semester of enrollment.
SA: MT 471
Effective Fall 2009  Effective Fall 2014

BLD 472  Advanced Clinical Chemistry
Fall of every year. Spring of every year. Summer of every year. 1 credit. P: BLD 416 and BLD 417 R: Open to seniors in the Clinical Laboratory Sciences major.
PCR  Theoretical aspects of clinical chemistry, chemical and biochemical reactions, statistical analysis, and pathophysiologic relationships. Integration of cognitive material with clinical laboratory test results.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 3 semesters after the end of the semester of enrollment.
SA: MT 472
Effective Fall 2009  Effective Fall 2014

BLD 473  Advanced Clinical Hematology and Body Fluids Laboratory
Fall of every year. Spring of every year. Summer of every year. 3 credits. P: BLD 424L R: Open to seniors in the Clinical Laboratory Sciences major.
PCR  Application and integration of theory and technical skills in hematology, hemostasis, and body fluid analysis.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 3 semesters after the end of the semester of enrollment.
SA: MT 473
Effective Fall 2009  Effective Fall 2014
BLD 474  Advanced Clinical Hematology and Body Fluids  
Fall of every year. Spring of every year. Summer of every year. 1 credit. P: BLD 424  
P: Open to seniors in the Clinical Laboratory Sciences major.  
C: BLD 473 concurrently.  
PCR  
Theoretical aspects of advanced hematology, hemostasis and body fluid analysis.  
Integration of cognitive material with clinical laboratory test results.  
Request the use of ET-Extension to postpone grading.  
The work for the course must be completed and the final grade reported within 3  
semesters after the end of the semester of enrollment.  
SA: MT 474  
Effective Fall 2009 Effective Fall 2014

BLD 475  Advanced Clinical Immunology and Immunohematology Laboratory  
Fall of every year. Spring of every year. Summer of every year. 2 credits. P: BLD 433  
P: Open to seniors in the Clinical Laboratory Sciences major.  
PCR  
Application and integration of theory and technical skills in immunology and  
immunohematology.  
Request the use of ET-Extension to postpone grading.  
The work for the course must be completed and the final grade reported within 3  
semesters after the end of the semester of enrollment.  
SA: MT 475  
Effective Fall 2009 Effective Fall 2014

BLD 476  Advanced Clinical Immunology and Immunohematology  
Fall of every year. Spring of every year. Summer of every year. 1 credit. P: BLD 435  
P: BLD 433 and BLD 434  
P: Open to seniors in the Clinical Laboratory Sciences major.  
C: BLD 475 concurrently.  
PCR  
Theoretical aspects of immunology and immunohematology. Integration of cognitive  
material with clinical laboratory test results.  
Request the use of ET-Extension to postpone grading.  
The work for the course must be completed and the final grade reported within 3  
semesters after the end of the semester of enrollment.  
SA: MT 476  
Effective Fall 2009 Effective Fall 2014

BLD 477  Advanced Clinical Microbiology Laboratory  
Fall of every year. Spring of every year. Summer of every year. 3 credits. P: MMG 464  
P: Open to seniors in the Clinical Laboratory Sciences major.  
PCR  
Application and integration of theory and technical skills in clinical microbiology and  
infectious disease.  
Request the use of ET-Extension to postpone grading.  
The work for the course must be completed and the final grade reported within 3  
semesters after the end of the semester of enrollment.  
SA: MT 477  
Effective Fall 2009 Effective Fall 2014

BLD 478  Advanced Clinical Microbiology  
Fall of every year. Spring of every year. Summer of every year. 1 credit. P: MMG 463  
P: BLD 450  
P: BLD 498  
P: Open to seniors in the Clinical Laboratory Sciences major.  
C: BLD 477 concurrently.  
PCR  
Theoretical aspects of clinical microbiology and infectious disease. Integration of cognitive  
material with clinical laboratory test results.  
Request the use of ET-Extension to postpone grading.  
The work for the course must be completed and the final grade reported within 3  
semesters after the end of the semester of enrollment.  
SA: MT 478  
Effective Fall 2009 Effective Fall 2014
BLD 479  Professional Behavior in Clinical Laboratory Science  
Fall of every year. Spring of every year. Summer of every year. 1(0-2) P: (BLD 220 and BLD 442) and ((BLD 471 or concurrently) or (BLD 473 or concurrently) or (BLD 475 or concurrently) or (BLD 477 or concurrently)) R: Open to students in the Clinical Laboratory Sciences major. 
PCR  Application of professional behavior principles to practical experiences in clinical laboratory science. 
Request the use of ET-Extension to postpone grading. 
The work for the course must be completed and the final grade reported within 3 semesters after the end of the semester of enrollment. 
SA: MT 479  
Effective Fall 2009 Effective Fall 2014

BLD 482  Advanced Diagnostic Molecular Science  
Spring of every year. 2 credits. R: Open to students in the Diagnostic Molecular Science major. C: BLD 483 concurrently or BLD 484 concurrently or BLD 485 concurrently or BLD 486 concurrently. 
PCR  Integration of principles and concepts in diagnostic molecular science with diagnostic laboratory test results. 
Request the use of ET-Extension to postpone grading. 
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment. 
SA: MT 482  
Effective Summer 2008 Effective Fall 2014

BLD 483  Molecular Diagnostic Experience in Hematopathology and Oncology  
Spring of every year. 2 credits. P: BLD 438 R: Open to students in the Diagnostic Molecular Science major. C: BLD 482 concurrently. 
PCR  Clinical experience in molecular diagnostic laboratories with applications in hematopathology and oncology. 
Request the use of ET-Extension to postpone grading. 
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment. 
SA: MT 483  
Effective Summer 2008 Effective Fall 2014

BLD 484  Molecular Diagnostic Experience in Infectious Disease  
Spring of every year. 2 credits. P: BLD 438 R: Open to students in the Diagnostic Molecular Science major. C: BLD 437 concurrently. 
PCR  Clinical experience in molecular diagnostic laboratories with applications to infectious disease diagnosis. 
Request the use of ET-Extension to postpone grading. 
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment. 
SA: MT 484  
Effective Summer 2008 Effective Fall 2014

BLD 485  Molecular Diagnostic Experience in Inherited and Predictive Genetics  
Spring of every year. 2 credits. P: BLD 438 R: Open to students in the Diagnostic Molecular Science major. C: BLD 482 concurrently. 
PCR  Clinical experience in molecular diagnostic laboratories with applications in inherited and predictive genetics. 
Request the use of ET-Extension to postpone grading. 
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment. 
SA: MT 485  
Effective Summer 2008 Effective Fall 2014
PART III – COURSE CHANGES

BLD 486  Molecular Diagnostic Experience in Genotyping and Individual Identification
Spring of every year. 2 credits. P: BLD 438 R: Open to students in the Diagnostic Molecular
Science major. C: BLD 482 concurrently.
PCR  Clinical experience in molecular diagnostic laboratories with applications to genotyping
and identification of individuals.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 2
semesters after the end of the semester of enrollment.
SA: MT 486
Effective Summer 2008 Effective Fall 2014

BLD 495  Directed Study
Fall of every year. Spring of every year. Summer of every year. 1 to 3 credits. A student may earn a
maximum of 6 credits in all enrollments for this course. R: Open to students in the Clinical
Laboratory Sciences major or in the Diagnostic Molecular Science major or in the Lyman Briggs
School-Medical Technology Coordinate Major or in the Medical Technology major.
PCR  Faculty directed study including assigned readings, reviews of appropriate scientific
periodicals, research, and laboratory experience.
SA: MT 495
Effective Summer 2008 Effective Fall 2014

BLD 498  Focused Problems in Clinical Laboratory Science
Spring of every year. 2(1-2) P: (MMG 463 or concurrently) and (MMG 464 or concurrently) P: BLD
417 and BLD 434 and (BLD 424 or concurrently) and (BLD 450 or concurrently) R: Open to
students in the Clinical Laboratory Sciences major.
PCR  Case study problems of medical microbiology, hematology, and clinical chemistry.
SA: MT 454, MT 498
Effective Fall 2010 Effective Fall 2014

BLD 498L  Infectious Disease Diagnostic Laboratory
Spring of every year. 1(0-3) P: MMG 463 and MMG 464 and BLD 434 and (BLD 450 or
concurrently) P: MMG 464 and (BLD 450 or concurrently) RB: BLD 430 RB: BLD 430 and BLD 434
R: Open to undergraduate students in the Clinical Laboratory Sciences major.
PCR  Applying pre-analytical, analytical, and post-analytical principles to the identification of
infectious agents in unknown samples.
Effective Spring 2012 Effective Fall 2014

DEPARTMENT OF BIOSYSTEMS AND AGRICULTURAL ENGINEERING

AE 053  Engine and Equipment Maintenance
Spring of every year. 2(2-2) R: Open to students in the Institute of Agricultural Technology.
Principles of two-stroke and four-stroke engines. Fuel systems, ignition systems,
lubrication, carburation, differentials, clutches and transmissions, and hydraulic systems.
Operation and maintenance procedures.  Offered first ten weeks of semester.
DELETE COURSE
Effective Summer 2015

AE 150  Metal Fabrication Technology
Fall of every year. 2(1-2)
Physical principles and safety techniques for electric and gas welding. Soldering, brazing,
cutting, tool use, machine shop equipment use, and hot and cold metalworking.
SA: ATM 150
DELETE COURSE
Effective Summer 2015

AE 252  Gasoline and Diesel Engine Technology
Fall of every year. 3(2-2)
Operating principles of gasoline and diesel engines and their systems. Operation and
maintenance requirements.
SA: ATM 252
DELETE COURSE
Effective Summer 2015
DEPARTMENT OF CHEMICAL ENGINEERING AND MATERIALS SCIENCE

MSE 200  Materials and Society
Fall of every year. 2(2-0) RB: High school physics and chemistry.
PCR  Material capabilities, limitations, and their utilization in the service and advancement of society. Role of materials in our day-to-day lives. Resource and environmental concerns including current material-related issues.
   Effective Fall 2008  Effective Fall 2014

MSE 250  Materials Science and Engineering
Fall of every year. Spring of every year. Summer of every year. 3(2-3) P: CEM 141 or CEM 151 or LB 171
PCR  Structure of metals, ceramics and polymers. Phase diagrams, thermomechanical treatments, physical and mechanical properties, diffusion, microstructure studies, environmental effects.
SA: MSM 250
   Effective Fall 2009  Effective Fall 2014

MSE 260  Electronic, Magnetic, Thermal, and Optical Properties of Materials
Spring of every year. 3(3-0) P: MSE 250 and (PHY 184 or concurrently) Not open to students with credit in MSE 350.
PCR  Processing, structures, and properties of ceramics, polymers, and composites. Electrical, thermal, magnetic and optical properties of materials. Materials selection and design.
SA: MSE 350
   Effective Fall 2012  Effective Fall 2014

MSE 310  Phase Equilibria in Materials
Fall of every year. 3(3-0) P: (MSE 250 or concurrently) and ((MTH 234 or concurrently) or (MTH 254H or concurrently) or (LB 220 or concurrently)) R: Open to juniors or seniors in the College of Engineering.
PCR  Enthalpy.  Entropy.  Free energy.  Phase changes in metal, ceramic, and polymer materials systems. Application to alloying, phase diagram determination, and electrochemistry.
SA: MSE 351
   Effective Fall 2012  Effective Fall 2014

MSE 320  Mechanical Properties of Materials
Fall of every year. 3(3-0) P: (ME 222 or concurrently) and MSE 250 R: Open to juniors or seniors in the Materials Science and Engineering major or approval of department.
SA: MSE 355
   Effective Fall 2012  Effective Fall 2014

MSE 331  Materials Characterization Methods I
Fall of every year. 2(1-3) R: Open to juniors or seniors in the Materials Science and Engineering Major. C: MSE 310 concurrently.
PCR  Thermal analysis. Optical and Scanning Electron Microscopy Laboratory for characterizing microstructure-property relationships. Effects of processing on microstructures, properties, and fracture surfaces in metal, ceramic and polymer systems. Thermal analysis, microindentation techniques, quantitative optical microscopy, effects of alloying on creep deformation, slip systems in ionic crystals, environmental effects including galvanic corrosion, passivation.
SA: MSE 375
   Effective Fall 2012  Effective Fall 2014
MSE 360  Fundamentals of Microstructural Design
Spring of every year. 3(3-0) P: ME 201 or MSE 310 or CHE 321 or PHY 215 RB: ((MTH 235 or concurrently) or (MTH 340 or concurrently) or (MTH 347H or concurrently) or (MTH 255H or concurrently)) and (MSE 260 or concurrently) R: Open to juniors or seniors in the Department of Chemical Engineering and Materials Science or approval of department.
PCR  Fick’s laws of diffusion. Models of solid state diffusion. Arrhenius plots. Use of non-equilibrium energy storage from solidification, phase changes, and deformation to predict and control microstructural changes and stability during processing in metal, ceramic, and polymer systems.
SA: MSE 352

MSE 370  Synthesis and Processing of Materials
Spring of every year. 3(3-0) P: (ME 201 or PHY 215 or MSE 310 or CHE 321) and MSE 250 RB: MSE 260 or concurrently R: Open to students in the Department of Chemical Engineering and Materials Science or approval of department; application required.
PCR  Chemical and physical processing of materials. Powder synthesis and processing, consolidation, casting, microdevice fabrication and surface treatments, corrosion mitigation.
SA: MSE 365, MSE 380

MSE 381  Materials Characterization Methods II
Spring of every year. 2(1-3) P: MSE 331 and (MSE 260 or concurrently) R: Open to juniors or seniors in the Materials Science and Engineering Major. C: MSE 360 concurrently and MSE 370 concurrently.
PCR  X-ray and infrared spectroscopic analysis laboratory for the characterization of microstructure-property relationships. Effects of processing on microstructures, properties, and fracture surfaces in metal, ceramic, and polymer systems. Characterization of materials by electron microscopy, X-ray diffraction and fluorescence spectroscopy, Fractography, surface analysis, dynamic mechanical analysis, electrical and thermal property measurements.
SA: MSE 376

MSE 410  Materials Foundations for Energy Applications
Fall of every year. 3(3-0) RB: MSE 310 or ME 201 or CHE 321 R: Open to seniors in the Department of Chemical Engineering and Materials Science.
PCR  Survey of materials that enable new energy generation, storage, and distribution technologies; thermoelectric materials, electrochemistry of batteries, semiconductors for solar cells, radiation tolerant materials, processing of biobased fuels, greenhouse gas mitigation approaches.

MSE 425  Biomaterials and Biocompatibility
Spring of every year. 3(3-0) Interdepartmental with Biomedical Engineering. P: MSE 250 RB: PSL 250 R: Open to juniors or seniors in the College of Engineering.
PCR  Materials science of human implants. Design requirements imposed by the human body, and need for bodily protection.
SA: BME 424, MSE 324

MSE 460  Electronic Structure and Bonding in Materials and Devices
Spring of every year. 3(3-0) P: MSE 260 R: Open to seniors in the Department of Chemical Engineering and Materials Science or approval of department; application required.
MSE 465 Design and Application of Engineering Materials
Spring of every year. 3(3-0) P: MSE 250 R: Open to seniors or graduate students in the College of Engineering.
PCR Fundamental principles of strengthening: toughening, specific strength, and stiffness. Material development based on environmental, temperature, wear, damping, fatigue, and economic considerations.
SA: MSM 465 Effective Spring 2014 Effective Fall 2014

MSE 466 Design and Failure Analysis (W)
Spring of every year. 3(2-3) P: ((MSE 320 and MSE 381)or approval of department) and completion of Tier I writing requirement R: Open to seniors in the College of Engineering.
PCR Modes and causes of failure in mechanical components and role of design. Non-destructive evaluation. Legal and economic aspects of materials failure. Student projects.
SA: MSM 466 Effective Fall 2013 Effective Fall 2014

MSE 454 Ceramic and Refractory Materials
Fall of every year. 3(3-0) P: MSE 260 or approval of department RB: MSE 370 and MSE 381 R: Open to seniors in the College of Engineering.
PCR Ceramic and glassy materials. High temperature processes. Mechanical and physical properties of technical ceramics.
SA: MSM 454 SA: MSM 454, MSE 454 Effective Fall 2013 Effective Summer 2015

MSE 476 Physical Metallurgy of Ferrous and Aluminum Alloys
Fall of every year. 3(3-0) P: MSE 250 RB: MSE 310 R: Open only to seniors in the College of Engineering. R: Open to seniors in the College of Engineering.
PCR Heat treatment and properties of ferrous and aluminum alloys. Casting and solidification. Effects of alloying elements, high strength low alloy steels, hardenability, and case hardening. Joining of materials, such as welding.
SA: MSM 476 Effective Summer 2005 Effective Fall 2014

MSE 490 Independent Study
Fall of every year. Spring of every year. Summer of every year. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to juniors or seniors in the College of Engineering. Approval of department. R: Open to seniors. Approval of department.
PCR Individualized reading and research.
SA: MSM 490 Effective Fall 2003 Effective Fall 2014

MSE 491 Selected Topics
Fall of every year. Spring of every year. Summer of every year. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to students in the Department of Chemical Engineering and Materials Science. R: Open to students in the Department of Chemical Engineering and Materials Science or in the College of Engineering.
PCR Topics of current interest in materials science or engineering.
SA: MSM 491 Effective Fall 2003 Effective Fall 2014
PART III – COURSE CHANGES

MSE 499  Senior Research and Design Project (W)
Fall of every year. Spring of every year. Summer of every year. 2 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P: Completion of Tier I writing requirement. R: Open only to seniors in the Materials Science and Engineering or Applied Engineering Sciences major. Approval of department. R: Open to students in the Department of Chemical Engineering and Materials Science or in the Materials Science and Engineering Major. Approval of department.

PCR  Design and analysis to solve materials and/or mechanics related problem. Preparation of written report, oral presentation, and defense of the project. Request the use of ET-Extension to postpone grading. The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment. SA: MSM 499
Effective Fall 2003 Effective Fall 2014

DEPARTMENT OF COMMUNITY SUSTAINABILITY

CSUS 301  Citizen Engagement for Sustainability
Community Engagement for Sustainability
Fall of every year. Spring of every year. 3(3-0) P: (CSUS 200) and completion of Tier I writing requirement
Application of principles of change theory, citizenship, sustainability, and community engagement at multiple scales. Public and participatory decision making in diverse contexts. Techniques and skills for community engagement. Examination of personal identities as citizens. Leadership and communication challenges in active practice of engagement.
Effective Fall 2014

CSUS 465  Environmental Law and Policy
Environmental and Natural Resource Law
Fall of every year. 3(3-0) Interdepartmental with Environmental Economics and Policy and Forestry. P: CSUS 200 or EEP 255 R: Open to juniors or seniors or graduate students. Legal principles and process related to the environment and natural resources. Common law, constitutional law, statutory and administrative law. SA: ESA 430, RD 430
Effective Fall 2014 Effective Summer 2015

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CSE 812  Advanced Operating Systems
Distributed Systems
Spring of every year. 3(3-0) RB: CSE 410 and CSE 420 RB: CSE 410 R: Open only to Computer Science or Electrical Engineering majors. R: Open to students in the Electrical Engineering Major or in the Computer Science Major.
Parallel and distributed operating systems. Load sharing, scheduling, reliability, recovery, memory management. Distributed file systems, distributed agreement, and object-oriented operating systems. Principles, paradigms, techniques used in distributed systems. Assurance techniques for distributed systems. Fault-tolerance and security issues in distributed systems. Research issues in the design and implementation of distributed systems. SA: CPS 812
Effective Summer 2000 Effective Summer 2015
DEPARTMENT OF ECONOMICS

EC 201  Introduction to Microeconomics
Fall of every year. Spring of every year. Summer of every year. 3(3-0) Not open to students with credit in EC 251H.

PCR  Economic institutions, reasoning and analysis. Consumption, production, determination of price and quantity in different markets. Income distribution, market structure and normative analysis.

Effective Summer 2002  Effective Fall 2014

EC 202  Introduction to Macroeconomics
Fall of every year. Spring of every year. Summer of every year. 3(3-0) Not open to students with credit in EC 252H.


Effective Summer 2002  Effective Fall 2014

EC 210  Economics Principles Using Calculus
Fall of every year. 3(3-0) P: MTH 133 or MTH 153H or MTH 126 Not open to students with credit in EC 201 or EC 202.

PCR  A combined microeconomics and macroeconomics course. Emphasis on topics of interest in engineering and management, such as discounting, cost-benefit analysis, innovation, externalities, and the role of government regulation.

Effective Summer 2002  Effective Fall 2014

EC 251H  Microeconomics and Public Policy
Fall of every year. Spring of every year. 4(4-0) Not open to students with credit in EC 301.

PCR  Theories of consumer behavior, production and cost. Output and price determination in competition and monopolies. Welfare economics, general equilibrium, externalities, and public goods.

Effective Summer 2002  Effective Fall 2014

EC 252H  Macroeconomics and Public Policy
Fall of every year. Spring of every year. 3(3-0) P: (EC 201 and EC 301) or EC 251H Not open to students with credit in EC 301.

PCR  Theory of national income, unemployment, inflation and economic growth and its application to economic analysis and policy.

Effective Spring 2005  Effective Fall 2014

EC 301  Intermediate Microeconomics
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: EC 201 and (MTH 124 or MTH 132 or MTH 152H or LB 118) RB: EC 202 Not open to students with credit in EC 251H.

PCR  Theories of consumer choice, production, cost, perfect competition, and monopoly. Welfare economics, general equilibrium, externalities, and public goods.

Effective Spring 2012  Effective Fall 2014

EC 302  Intermediate Macroeconomics
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: (EC 201 or EC 251H) and EC 202 Not open to students with credit in EC 252H.


Effective Spring 2012  Effective Fall 2014

EC 306  Comparative Economic Systems
Fall of every year. 3(3-0) P: (EC 201 or EC 251H) and (EC 202 or EC 252H)

PCR  Characteristics and functions of economic systems. Alternative patterns of economic control, planning, and market structure. Theories, philosophies, and experiences associated with capitalism, socialism, and mixed economies.

Effective Summer 2003  Effective Fall 2014
EC 310  Economics of Developing Countries  
Spring of every year. 3(3-0) P: EC 201 or EC 251H Not open to students with credit in EC 410.
PCR  
Economic patterns and policy issues of developing countries such as modern economic growth and structural transformation, state controls versus markets, poverty and human welfare, investments in human resources, and trade and industrialization.
   Effective Summer 2014 Effective Fall 2014

EC 330  Money, Banking, and Financial Markets  
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: (EC 201 or EC 251H) and (EC 202 or EC 252H)
PCR  
Money markets and financial intermediation. Money, the Federal Reserve System, and monetary policy. Regulation of money markets.
   Effective Summer 2002 Effective Fall 2014

EC 333  Governments and Markets: When Laissez-Faire Fails  
Fall of every year. Spring of every year. Summer of every year. 3 credits. P: EC 201 or EC 251H
PCR  
Economic and philosophical underpinnings of governmental intervention in the economy.
Critical analysis of governmental interventions as solutions to contemporary economic and social problems.
   Effective Summer 2007 Effective Fall 2014

EC 335  Taxes, Government Spending and Public Policy  
Fall of every year. Spring of every year. Summer of every year. 3(3-0) Interdepartmental with Environmental Economics and Policy. P: EC 201 or EC 251H Not open to students with credit in EC 435 or EC 436.
PCR  
Economics of the public sector. Public goods, externalities, design and incidence of the tax system. Equity and efficiency effects of government programs.
   SA: PRM 335
   Effective Fall 2002 Effective Fall 2014

EC 340  Survey of International Economics  
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: (EC 201 or EC 251H) and (EC 202 or EC 252H) Not open to students with credit in EC 440 or EC 441.
PCR  
   Effective Summer 2002 Effective Fall 2014

EC 360  Private Enterprise and Public Policy  
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: EC 201 or EC 251H
PCR  
Effects of antitrust, economic regulation, and other public policies on competition, monopoly, and other market problems in the United States economy.
   Effective Summer 2002 Effective Fall 2014

EC 370  Economics of Sports  
Summer of every year. 3(3-0) P: EC 201 P: EC 201 or EC 251H
PCR  
Economic analysis of sports teams, leagues, and institutions. Strategic considerations, demand and pricing, betting markets, optimal compensation for athletes, the market for superstars, anti-trust and public finance issues.
   Effective Summer 2012 Effective Fall 2014

EC 380  Labor Relations and Labor Market Policy  
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: EC 201 or EC 251H Not open to students with credit in EC 480.
PCR  
   Effective Summer 2014 Effective Fall 2014
EC 391  Special Topics in Economics
Fall of every year. Spring of every year. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. P: (EC 201 or EC 251H) and (EC 202 or EC 252H) R: Approval of department.

PCR  Special topics supplementing regular course offerings.
Effective Fall 2004 Effective Fall 2014

EC 401  Advanced Microeconomics
Fall of every year. Spring of every year. 3(3-0) P: EC 251H or EC 301

PCR  Economics of uncertainty and incomplete information. Game theory and theories of oligopoly. Transaction costs. Advanced topics in welfare economics, general equilibrium, externalities, and public goods.
Effective Fall 2006 Effective Fall 2014

EC 402  Advanced Macroeconomics
Fall of every year. Spring of every year. 3(3-0) P: (EC 251H or EC 301) and (EC 252H or EC 302)

PCR  Consumption, investment, and monetary theories. The role of expectations. Theories of economic growth and cycles. Stabilization policies.
Effective Summer 2002 Effective Fall 2014

EC 406  Economic Analysis of Russia and the Commonwealth of Independent States (W)
Spring of even years. 3(3-0) P: (EC 202 or EC 252H) and (EC 301 or EC 251H) and Completion of Tier I Writing Requirement

PCR  Analysis of structure and performance of planning, transition economy, and post-transition economy in Russia and the commonwealth of independent states (CIS) with focus on micro foundations of macroeconomic outcomes.
Effective Fall 2014

EC 410  Issues in the Economics of Developing Countries (W)
Fall of every year. 3(3-0) P: (EC 202 or EC 252H) and (EC 301 or EC 251H) and Completion of Tier I Writing Requirement

PCR  Topics in development economics, such as growth, technological change, structural transformation, poverty and inequality, investment in human resources, trade, international capital flows, and the political economy of policy formation and governance.
Effective Fall 2014

EC 412  Economic Analysis of Latin America (W)
Fall of even years. 3(3-0) P: (EC 202 or EC 252H) and (EC 301 or EC 251H) and Completion of Tier I Writing Requirement

Effective Fall 2014

EC 413  Economic Analysis of Asia (W)
Spring of odd years. 3(3-0) P: (EC 202 or EC 252H) and (EC 301 or EC 251H) and Completion of Tier I Writing Requirement

PCR  Development of agriculture, industry, labor markets, and trade in some of the following: India and South Asia, China, the Pacific Rim countries, and Japan. Productivity, income distribution, finance, and planning.
Effective Fall 2014

EC 414  Economic Analysis of Sub-Saharan Africa (W)
Fall of odd years. 3(3-0) P: (EC 202 or EC 252H) and (EC 301 or EC 251H) and Completion of Tier I Writing Requirement

PCR  African economic development in historical perspective. Contemporary development issues including agricultural policies, industrial development, foreign trade and aid, human resource investments, AIDS, and the political economy of economic and political policies and reforms.
Effective Fall 2014
<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Terms</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC 420</td>
<td>Introduction to Econometric Methods</td>
<td>Fall of every year</td>
<td>Spring of every year. 3(3-0) P: (EC 202 or EC 252H) and (EC 251H or EC 301) and (MTH 124 or MTH 132 or MTH 152H or LB 118) and (STT 315 or STT 421 or STT 430 or STT 441)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PCR: Specification, estimation, and interpretation of econometric models. Evaluation of current quantitative work in economics. <strong>Effective Fall 2013 Effective Fall 2014</strong></td>
</tr>
<tr>
<td>EC 421</td>
<td>Advanced Econometric Methods</td>
<td>Spring of even years</td>
<td>3(3-0) P: EC 420</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PCR: Panel data methods, instrumental variables, limited dependent variables, time series analysis, and other advanced topics. <strong>Effective Fall 2004 Effective Fall 2014</strong></td>
</tr>
<tr>
<td>EC 425</td>
<td>Law and Economics (W)</td>
<td>Fall of every year</td>
<td>3(3-0) Interdepartmental with Finance. P: (EC 251H or EC 301) and Completion of Tier I Writing Requirement</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PCR: Application of economic analysis to the law. Property rights, takings, the Coase Theorem. The economics of regulation, crime and punishments, liability law, and public choice. <strong>Effective Fall 2014</strong></td>
</tr>
<tr>
<td>EC 435</td>
<td>Public Expenditures (W)</td>
<td>Fall of every year</td>
<td>3(3-0) P: (EC 251H or EC 301) and Completion of Tier I Writing Requirement</td>
</tr>
<tr>
<td>EC 436</td>
<td>Public Revenues (W)</td>
<td>Spring of every year</td>
<td>3(3-0) P: (EC 251H or EC 301) and Completion of Tier I Writing Requirement</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PCR: Principles and theory of efficiency and the incidence of taxation. Income and sales taxes and other major revenue sources. <strong>Effective Fall 2014</strong></td>
</tr>
<tr>
<td>EC 440</td>
<td>International Trade (W)</td>
<td>Fall of every year</td>
<td>3(3-0) P: (EC 251H or EC 301) and Completion of Tier I Writing Requirement</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PCR: Neoclassical and modern theories regarding trade patterns and commercial policies. Applications of theory to United States policy. Contemporary issues involving international trade of goods, services, and productive factors. <strong>Effective Fall 2014</strong></td>
</tr>
<tr>
<td>EC 441</td>
<td>International Finance (W)</td>
<td>Spring of every year</td>
<td>3(3-0) P: (EC 251H or EC 301) and (EC 252H or EC 302) and Completion of Tier I Writing Requirement</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PCR: Neoclassical and modern theories pertaining to balance of payments and exchange rate determination. Macroeconomic performance under alternative exchange rate regimes. Contemporary issues involving international monetary arrangements. <strong>Effective Fall 2014</strong></td>
</tr>
<tr>
<td>EC 450</td>
<td>Economics of Environmental Policy (W)</td>
<td>Spring of every year</td>
<td>3(3-0) P: (EC 301 or EC 251H) and Completion of Tier I Writing Requirement</td>
</tr>
<tr>
<td>EC 460</td>
<td>American Industry: Structure and Behavior (W)</td>
<td>Fall of every year</td>
<td>3(3-0) P: (EC 251H or EC 301) and Completion of Tier I Writing Requirement</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PCR: Market structure and performance. Empirical analysis of market definition, concentration, product differentiation, vertical integration, innovativeness, collusion, and entry deterrence. <strong>Effective Fall 2014</strong></td>
</tr>
</tbody>
</table>
EC 480  Analysis of Labor Markets (W)
Fall of every year. Spring of every year. 3(3-0) P: (EC 251H or EC 301) and Completion of Tier I Writing Requirement
PCR  Labor supply and demand. Human capital, search, migration, and labor turnover. Analysis of unemployment and wage growth. Structure of wages, including economics of discrimination.
Effective Fall 2014

EC 485  Economics of Education (W)
Fall of every year. 3(3-0) P: (EC 301 or EC 251H) and Completion of Tier I Writing Requirement
PCR  The intersection of economics and education with a focus on U.S. education policy. Human capital, education production, and education reforms.
Effective Fall 2014

EC 490  Independent Study
Fall of every year. Spring of every year. Summer of every year. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. P: (EC 202 or EC 252H) and (EC 251H or EC 301) R: Approval of department.
PCR  Research and reading course for students interested in doing independent work in economics under faculty supervision.
Effective Fall 2006 Effective Fall 2014

EC 491  Advanced Topics in Economics
Fall of every year. Spring of every year. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. P: (EC 251H or EC 301) and (EC 252H or EC 302) and (MTH 124 or MTH 132 or MTH 152H) R: Approval of department.
PCR  Advanced work in specialized topics of economics.
Effective Fall 2006 Effective Fall 2014

EC 495  Economics of Poverty and Income Distribution (W)
Fall of every year. 3(3-0) P: (EC 251H or EC 301) and Completion of Tier I Writing Requirement
Effective Fall 2014

EC 498  Economics of Health Care (W)
Fall of odd years. 3(3-0) P: (EC 251H or EC 301) and Completion of Tier I Writing Requirement
Effective Fall 2014

EC 499  Senior Seminar for Economics Majors (W)
Fall of every year. Spring of every year. 3(3-0) P: (EC 251H or EC 301) and (EC 252H or EC 302) and (EC 420 and completion of Tier I writing requirement) R: Open only to seniors in the Department of Economics. R: Open to seniors in the Economics Major.
PCR  Capstone course for economics majors. Reading and discussion concerning selected economics topics. Preparation and presentation of student research project.
Effective Fall 2006 Effective Fall 2014

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

ECE 302  Electronic Circuits
Fall of every year. Spring of every year. 3(3-0) P: ECE 202 and (ECE 280 or concurrently) P: ECE 202 R: Open to students in the Department of Electrical and Computer Engineering and open to students in the Department of Computer Science and Engineering. R: Open to students in the Electrical Engineering Major and open to students in the Computer Engineering Major.
PCR  Volt-ampere characteristics of diodes and transistors. Modeling using SPICE software. Differential, multistage, and integrated circuit amplifiers. High frequency effects.
SA: EE 302
Effective Fall 2013 Effective Fall 2014
ECE 320  Energy Conversion and Power Electronics  
Fall of every year. Spring of every year. 3(3-0) P: ECE 302 and ECE 303 and ECE 305  
P: ECE 302 and (ECE 305 or concurrently) R: Open to students in the Department of Electrical and  
Computer Engineering and open to students in the Department of Computer Science and Engineering.  
R: Open to students in the Electrical Engineering Major and open to students in the Computer  
Engineering Major.  
Power and energy. Magnetics and transformers. Elementary and induction machines.  
Power semiconductors. Controlled rectifiers and inverters. Power supplies and motor  
drives.  
SA: EE 320  
Effective Fall 2013  Effective Fall 2014

COLLEGE OF ENGINEERING

AESC 310  Sustainable Systems Analysis  
Fall of every year. 3(0-3) P: (AESC 210 and (STT 315 or concurrently)) and completion of Tier I  
writing requirement R: Open to juniors or seniors in the College of Engineering or approval of  
department. R: Open to juniors or seniors in the College of Engineering and open to juniors or  
seniors in the Department of Marketing and open to juniors or seniors in the Department of Supply  
Chain Management.  
Concepts of sustainable systems; computational analysis tools for project management,  
life-cycle analysis, system-level representation, and six-sigma approaches. Case studies. Modeling  
and computational analysis.  
SA: EGR 300, EGR 310  
Effective Fall 2013  Effective Fall 2014

AESC 410  System Methodology  
Capstone Project in Applied Engineering Sciences  
Spring of every year. 3(1-4) P: (AESC 310) and completion of Tier I writing requirement R: Open to  
seniors in the Applied Engineering Sciences Major. Approval of department; application required.  
System analysis experience involving analysis tools and practices appropriate to the  
project, oral and written communication, professional ethics. Professional work group  
experience with other applied engineering sciences students working on sponsor defined  
project. Application of applied engineering sciences curricular elements, skills and  
competencies.  
SA: MSM 400, SYS 410, EGR 410 SA: EGR 410, MSM 400, SYS 410  
Effective Fall 2013  Effective Summer 2015

EGR 811  Foundations of Engineering Education  
Fall of every year. 3(3-0) RB: Teaching experience (e.g. TA) and interest in becoming a higher  
education faculty member as a career. R: Open to graduate students in the College of Engineering.  
Approval of department.  
Introduces the theoretical foundations of engineering education, student learning theories,  
educational research, and instructional design. Students will learn how to effectively  
teach, manage, and assess student performance. Introduces the theoretical foundations  
of engineering education, student learning theories, educational research, and  
instructional design. How to effectively teach, manage, and assess student performance.  
Effective Fall 2013  Effective Fall 2014

DEPARTMENT OF ENTOMOLOGY

ENT 205  Pests, Society and Environment  
Fall of every year. Spring of every year. Summer of every year. 3(3-0) Not open to students with  
credit in ENT 404.  
Nature of pests and their impact on society. Principles of integrated pest management in  
relation to environmental quality and sustainable development.  
Effective Fall 2013  Effective Summer 2015
DEPARTMENT OF FINANCE

FI 312  Introduction to Investments
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: FI 311 P: FI 311 or FI 311H R: Open to juniors or seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management and not open to students in the School of Hospitality Business. R: Open to juniors or seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management.

Effective Spring 2013 Effective Spring 2014

FI 451  International Financial Management
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: FI 311 R: Open to juniors or seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management and not open to students in the School of Hospitality Business. R: Open to juniors or seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management.

Financial management of multinational firms. Theoretical and applied aspects of international capital budgeting, capital structure, cash management, asset pricing, and risk management. Cross-cultural and ethical considerations. 
Effective Spring 2013 Effective Summer 2014

FI 457  Security Analysis
Fall of every year. Spring of every year. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. P: FI 312 R: Not open to students in the School of Hospitality Business and open to juniors or seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management. Approval of department. R: Approval of department.

Effective Spring 2013 Effective Fall 2014

FI 478  Investment Strategies and Speculative Markets
Fall of every year. 3(3-0) P: FI 311 and FI 312 R: Open to juniors or seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management and not open to students in the School of Hospitality Business. R: Open to juniors or seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management.

Pricing, trading strategies, hedging applications, and markets for forwards, futures, swaps, and options. 
Effective Spring 2013 Effective Fall 2014

FI 999  Doctoral Dissertation Research
Fall of every year. Spring of every year. Summer of every year. 1 to 24 credits. A student may earn a maximum of 99 credits in all enrollments for this course. A student may earn a maximum of 36 credits in all enrollments for this course. R: Open only to doctoral students in the Department of Finance. R: Open to doctoral students in the Department of Finance.

Doctoral dissertation research. 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 1992 Effective Fall 2014

GBL 460  International Law and Business
International Business Law and Sustainability
Spring of every year. 3(3-0) P: GBL 385 or GBL 385H R: Open to seniors or graduate students. R: Open to juniors or seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management or in the Environmental and Sustainability Studies Minor and not open to undergraduate students in the School of Hospitality Business.

Effective Spring 2013 Effective Fall 2015
GBL 467  Emerging Enterprise Law  
Fall of every year. 3(3-0)  P: GBL 395 or GBL 395H or GBL 454  P: GBL 295 or GBL 295H  R: Open to juniors or seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management and not open to students in the School of Hospitality Business. C: MGT 352 concurrently or MKT 355 concurrently.  
In-depth analysis of the law for new ventures. Laws one must follow before, during, and after creation of a company. 
Effective Fall 2013 Effective Fall 2014

GBL 480  Environmental Law and Sustainability for Business: From Local to Global  
Spring of every year. Summer of odd years. 3(3-0)  R: Open to juniors or seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management and not open to undergraduate students in the School of Hospitality Business and open to undergraduate students in the International Business Specialization or in the Sustainability Specialization.  R: Open to juniors or seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management or in the Environmental and Sustainability Studies Minor and not open to undergraduate students in the School of Hospitality Business.  
Environmental law and sustainability for business from comparative as well as local, national, and international perspectives.  
Request the use of ET-Extension to postpone grading. 
Effective Spring 2013 Effective Fall 2015

DEPARTMENT OF HORTICULTURE

HRT 211A  Landscape Plants I A  
Fall of every year. 2(2-0)  
Identification, adaptation, and evaluation of shade trees, narrow-leaved evergreens, shrubs, woody vines, herbs, ornamental grasses, and other herbaceous perennials.  
DELETE COURSE  
Effective Fall 2012

HRT 218  Irrigation Systems for Horticulture  
Spring of every year. 3(2-2)  R: Open to undergraduate students or agricultural technology students.  
Design, installation and maintenance of irrigation systems for turfgrass and landscape plants. Design hydraulics, equipment selection, pump stations, water features, water quality and conservation. Offered the first ten weeks of the semester. Design, installation and maintenance of irrigation systems for turfgrass and landscape plants. Design hydraulics, equipment selection, pump stations, water features, water quality and conservation.  
Effective Fall 2014 Effective Spring 2015

HRT 244  Culinary and Medicinal Herbs  
Summer of every year. 1(1-0)  
DELETE COURSE  
Effective Fall 2012

HRT 245  Specialty Cut Flowers  
Summer of every year. 1(1-0)  
DELETE COURSE  
Effective Fall 2012
HRT 252  Organic Certification and Farm Plans  
Fall of every year. 1(1-0) P: HRT 251  
Organic certification requirements as specified by the USDA National Organic Program and implemented by certifying agencies. Methods of record keeping and farm plans for specialty crop, field crop, perennial fruit, and livestock farms. Organic processing and marketing.  
DELETE COURSE  
Effective Fall 2012

HRT 256  Organic Produce Direct Marketing  
Fall of every year. 1(1-0)  
DELETE COURSE  
Effective Fall 2012

HRT 257  Organic Produce Wholesale Marketing  
Fall of every year. 1(1-0)  
DELETE COURSE  
Effective Fall 2012

HRT 259A  Student Organic Farm Practicum I  
Spring of every year. 3(0-9) R: Open to agricultural technology students.  
Intensive organic vegetable, fruit, herb, and flower farming by direct involvement in the weekly activities and operation of the MSU Student Organic Farm. Local food systems, farm operations, transplanting, community-supported agriculture management, winter hoophouse, and edible forest gardening.  
SA: HRT 259  
DELETE COURSE  
Effective Fall 2012

HRT 259B  Student Organic Farm Practicum II  
Summer of every year. 4(0-12) P: HRT 259A R: Open to agricultural technology students.  
Intensive organic vegetable, fruit, herb, and flower farming by direct involvement in the weekly activities and operation of the MSU Student Organic Farm. Equipment basics, soil fertility, field cultivation, harvesting, post-harvest handling, summer hoophouse, and farm stand operations.  
SA: HRT 259  
DELETE COURSE  
Effective Fall 2012

HRT 259C  Student Organic Farm Practicum III  
Spring of every year. 3(0-9) P: HRT 259B R: Open to agricultural technology students.  
Intensive organic vegetable, fruit, herb, and flower farming by direct involvement in the weekly activities and operation of the MSU Student Organic Farm. Harvest and post-harvest handling, crop storage, fall hoophouses, cover crops, crop specialty planting, organic farm plan, crop plan, farm stand, and community-supported agriculture.  
SA: HRT 259  
DELETE COURSE  
Effective Fall 2012
COLLEGE OF HUMAN MEDICINE

HM 629 Leadership in Medicine for Underserved or Vulnerable Communities
Spring of every year. 6 credits. P: PHD 600 and MED 608 and FMP 608 and PSC 608 and OGR 608 and SUR 608 P: PHD 600 and MED 608 and FM 608 and PSC 608 and OGR 608 and SUR 608 R: Open to graduate-professional students in the College of Human Medicine. Approval of college.
Issues involved in securing access to medical care and community resources for families in medically underserved communities.
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 2 semesters after the end of the semester of enrollment.
SA: MED 629
Effective Summer 2011 Effective Fall 2014

DEPARTMENT OF KINESIOLOGY

KIN 423 Therapeutic Modalities
Fall of every year Spring of every year 3(3-0) P: KIN 320 and (PHY 231 or concurrently) R: Open to students in the Athletic Training major.
Therapeutic modalities used to manage athletic injuries and their indications and contraindications. Rationale for and techniques of using thermal and electrical modalities for athletic injuries.
Effective Spring 2014 Effective Spring 2015

KIN 810 Metabolic Responses to Exercise
Fall of odd years Spring of even years 3(3-0)
Acute and chronic effects of exercise on metabolic processes. Role of these processes in limiting exercise performance.
SA: PES 810
Effective Summer 2006 Effective Spring 2015

KIN 811 Physiological Evaluation and Exercise Prescription
Fall of every year Spring of odd years 2(0-4) RB: KIN 810 or concurrently
Techniques in evaluation of physiological capacity and in exercise prescription for various populations.
SA: PES 811
Effective Fall 1998 Effective Spring 2015

KIN 854 Legal and Administrative Issues for Administrators and Coaches
Fall of every year Spring of every year Summer of every year 3(3-0)
Responsibilities of administrators, directors of recreational programs and athletic coaches for providing and maintaining educationally sound athletic programs for amateur athletes. Concepts, policies and procedures that enhance the physical and psychological health of amateur athletes. Obligations for managing the risks of participation in physical activities.
Effective Summer 2004 Effective Spring 2015

KIN 855 Psychosocial Bases of Coaching Athletes
Fall of every year Spring of every year 3(3-0)
Responsibilities of athletic administrators, directors of recreational programs and athletic coaches for the sociological, psychological, philosophical, developmental, and instructional principles for coaching amateur athletes. Development of a coaching philosophy and application of scientific findings to practical situations.
Effective Fall 2003 Effective Spring 2015

KIN 870 Physical Activity and Well-Being
Fall of every year Spring of even years 3(3-0)
Relationship of physical activity to human well-being. Influence of growth, biological maturity, aging, body composition, nutrition, training, and rest on health and performance.
SA: PES 870
Effective Fall 1998 Effective Spring 2015
DEPARTMENT OF LARGE ANIMAL CLINICAL SCIENCES

LCS 829  Design and Conduct of Epidemiological Studies and Clinical Trials  
Spring of every year. 3(2-2) Interdepartmental with Epidemiology. P: VM 533 or EPI 810 and EPI 808  
**Effective Spring 2013 Effective Fall 2014**

DEPARTMENT OF LINGUISTICS AND GERMANIC, SLAVIC, ASIAN AND AFRICAN LANGUAGES

AL 815  FLT 815  Teaching Culture in Foreign Language Courses  
Spring of every year. 3(3-0) R: Open to graduate students in the Foreign Language Teaching Major or approval of department.  
SA: AL 815  
**Effective Spring 2012 Effective Fall 2014**

AL 817  FLT 817  Foreign Language Program Development and Administration  
Fall of every year. Spring of every year. 3(3-0) R: Open to graduate students in the Foreign Language Teaching Major or approval of department.  
Current issues in language program administration and development. Practical application of theory in foreign language program development, marketing, articulation, technology integration, supervision, curriculum design, program evaluation, and teacher training.  
SA: AL 817  
**Effective Spring 2012 Effective Fall 2014**

AL 845  FLT 845  Language Concepts for Foreign Language Teaching  
Fall of every year. 3(3-0) R: Open to graduate students in the Foreign Language Teaching Major or approval of department.  
Methodologies for teaching phonological, morphological, syntactic, lexical, discourse and pragmatic systems in foreign language courses.  
SA: AL 845  
**Effective Spring 2012 Effective Fall 2014**

GRM 999  Doctoral Dissertation Research  
Fall of every year. Spring of every year. Summer of every year. 1 to 24 credits, 1 to 36 credits. A student may earn a maximum of 99 credits in all enrollments for this course. A student may earn a maximum of 36 credits in all enrollments for this course. R: Approval of department.  
Doctoral dissertation research.  
Request the use of the Pass-No Grade (P-N) system.  
**Effective Summer 2002 Effective Fall 2014**

LIN 999  Doctoral Dissertation Research  
Fall of every year. Spring of every year. Summer of every year. 1 to 99 credits, 1 to 36 credits. A student may earn a maximum of 99 credits in all enrollments for this course. A student may earn a maximum of 36 credits in all enrollments for this course. R: Approval of department.  
Doctoral dissertation research.  
Request the use of the Pass-No Grade (P-N) system.  
**Effective Fall 1999 Effective Fall 2014**
LLT 999  Doctoral Dissertation Research
Fall of every year. Spring of every year. Summer of every year. 1 to 99 credits. A student may earn a maximum of 99 credits in all enrollments for this course. A student may earn a maximum of 36 credits in all enrollments for this course. R: Approval of department.

Doctoral dissertation research.
Request the use of the Pass-No Grade (P-N) system.

DELETE COURSE
Effective Fall 2005 Effective Fall 2014

RUS 804  Topics in the Teaching of Russian
Fall of every year. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course.

Methods of Russian language instruction. Current research on the acquisition of Russian.

DELETE COURSE
Effective Summer 2014

RUS 890  Independent Study
Fall of every year. Spring of every year. 1 to 6 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Approval of department.

Special projects, directed reading, and research arranged by an individual graduate student and a faculty member in areas supplementing regular course offerings.

DELETE COURSE
Effective Summer 2014

RUS 891  Special Topics in Russian Studies
Fall of every year. Spring of every year. Summer of every year. 1 to 6 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Approval of department.

Special topics supplementing regular course offerings proposed by faculty on a group study basis for graduate students.

DELETE COURSE
Effective Summer 2014

RUS 899  Master's Thesis Research
Fall of every year. Spring of every year. Summer of every year. 1 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Approval of department.

Directed research for Plan A master's degree requirements.
Request the use of the Pass-No Grade (P-N) system.

DELETE COURSE
Effective Summer 2014

RUS 990  Doctoral Independent Study
Fall of every year. Spring of every year. Summer of every year. 1 to 12 credits. A student may earn a maximum of 18 credits in all enrollments for this course. R: Approval of department.

Special projects, directed reading, and research arranged by an individual doctoral student and a faculty member in areas supplementing the regular course offerings.

DELETE COURSE
Effective Summer 2014

RUS 999  Doctoral Dissertation Research
Fall of every year. Spring of every year. Summer of every year. 1 to 99 credits. A student may earn a maximum of 99 credits in all enrollments for this course. R: Approval of department.

Doctoral dissertation research.
Request the use of the Pass-No Grade (P-N) system.

DELETE COURSE
Effective Summer 2014
DEPARTMENT OF MANAGEMENT

MGT 999  Doctoral Dissertation Research
Fall of every year. Spring of every year. Summer of every year. 1 to 24 credits. A student may earn a maximum of 99 credits in all enrollments for this course. A student may earn a maximum of 36 credits in all enrollments for this course. R: Open only to Ph.D. students in Management. R: Open to doctoral students.
Doctoral dissertation research.
Request the use of the Pass-No Grade (P-N) system.
Effective Fall 1992 Effective Fall 2014

DEPARTMENT OF MARKETING

MKT 300  Managerial Marketing
Fall of every year. Spring of every year. Summer of every year. 3(3-0) R: Open to juniors or seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management. R: Open to juniors or seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management and not open to undergraduate students in the School of Hospitality Business. Not open to students with credit in MKT 327.
Analysis and strategic integration of buyer behavior, segmentation, positioning, demand analysis, information, pricing, promotion, channels, product policies, and ethics in consumer, reseller, industrial, and service markets.
SA: MSC 300
Effective Spring 2013 Effective Fall 2015

MKT 302  Consumer and Organizational Buyer Behavior
Fall of every year. Spring of every year. Summer of every year. 3(3-0) R: MKT 300 and (MKT 317 or concurrently) P: (MKT 300 or MKT 327) and (MKT 317 or concurrently) R: Open to juniors or seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management or in the Food Industry Management major or in the Sales Communication Specialization.
Application of consumer behavior principles to customer satisfaction, market planning, and marketing mix decisions. Ethical, diversity, and international issues.
SA: MSC 302
Effective Spring 2013 Effective Fall 2015

MKT 319  Marketing Research
Fall of every year. Spring of every year. 3(3-0) R: MKT 300 and MKT 317 P: (MKT 300 or MKT 327) and MKT 317 R: Open to juniors or seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management.
Research methods designed to obtain information for marketing decisions. Research design, data collection, and interpretation of information to aid in making managerial decisions.
SA: MSC 319
Effective Spring 2013 Effective Fall 2015

MKT 355  Entrepreneurship: Strategic Marketing Planning and Launch
Fall of every year. Spring of every year. 3 credits. R: MKT 300 P: MKT 300 or MKT 327 R: Open to undergraduate students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of department. Not open to students with credit in MGT 352.
Process of planning, starting, and positioning new businesses which link directly to customer requirements. Understanding unmet market opportunity due to competitive gaps or customer needs (realized or not) for both consumer and industrial products and services.
SA: MSC 355
Effective Fall 2013 Effective Fall 2015
**MKT 415  International Marketing Management**
Fall of every year. Spring of every year. 3(3-0) P: MKT 300 and (MKT 310 or EC 340) P: (MKT 300 or MKT 327) and (MKT 310 or EC 340) R: Open to juniors or seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management.
Marketing decisions, strategies, and operations of the firm involved in international business. Researching global market opportunities and formulating market entry strategies. Developing and implementing the international marketing program.
SA: MSC 415
**Effective Spring 2013 Effective Fall 2015**

**MKT 420  New Product Design and Development**
Spring of every year. 3(3-0) P: MKT 300 and MKT 317 P: (MKT 300 or MKT 327) and MKT 317 R: Open to seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management.
Practical training and experiences in design and testing of new products.
SA: MSC 420
**Effective Spring 2013 Effective Fall 2015**

**MKT 491  Special Topics in Marketing**
**Spring of odd years. On Demand. 3(3-0) 1 to 3 credits.** A student may earn a maximum of 6 credits in all enrollments for this course. P: MKT 300 and MKT 319 and MKT 302 or approval of department; application required P: (MKT 300 or MKT 327) and (MKT 302 and MKT 319) R: Open to seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of department; application required. R: Open to juniors or seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of department.
Special topics in marketing management or marketing research of unusual scope or timeliness.
**Effective Spring 2013 Effective Summer 2015**

**MKT 864  Data Mining in Marketing**
Spring of every year. 1.5(1.5-0) 1 to 3 credits. P: MKT 806 and MKT 819 or approval of department. RB: MKT 805 or MBA 830 R: Open to masters students in the Marketing Research major and open to MBA students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of department. R: Open to masters students in the Business Analytics Major or in the Marketing Research major and open to MBA students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of department.
Statistical and computer based techniques for exploring and exploiting very large data arrays as common to large scale marketing and marketing research projects. Introduction to Statistical Package for the Social Sciences (SPSS), Statistical Analysis System (SAS) and other computer packages. Immersion in database, warehouse and mart customer relationship management (CRM) configurations.
**Effective Fall 2013 Effective Fall 2015**

**MKT 865  Emerging Topics in Business**
Fall of every year. Spring of every year. Summer of every year. 1.5(1.5-0) 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: MBA 830 or MKT 805 R: Open to graduate students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of department.
Perspectives on new and emerging issues of business administration. Topics vary.
SA: MSC 865
**Effective Fall 2013 Effective Summer 2015**

**MKT 999  Doctoral Dissertation Research**
Fall of every year. Spring of every year. Summer of every year. 1 to 9 credits. A student may earn a maximum of 72 credits in all enrollments for this course. A student may earn a maximum of 36 credits in all enrollments for this course.
Doctoral dissertation research. Request the use of the Pass-No Grade (P-N) system.
SA: MSC 999
**Effective Fall 2009 Effective Fall 2014**
COLLEGE OF MUSIC

MUS 371  Music Therapy: Treatment Planning and Case Management  
Spring of every year. 3(3-1) P: MUS 270 R: Open to students in the Bachelor of Music in Music Therapy.  
DELETE COURSE  
Effective Fall 2014

MUS 471  Music Therapy: Physical and Developmental Disabilities  
Spring of every year. 3(3-1) P: MUS 270 R: Open to students in the College of Music and not open to freshmen.  
Use of music therapy to treat clients with physical and developmental disabilities, and medical music therapy. Clinical practicum required.  
DELETE COURSE  
Effective Fall 2014

MUS 473  Music Therapy: Active and Receptive Strategies  
Fall of odd years. 3(3-0) P: MUS 270 and MUS 142 R: Open to students in the College of Music.  
Understanding and developing basic skills of active and receptive strategies of music therapy, focusing on clinical keyboard improvisation and music-assisted relaxation and imagery inductions.  
DELETE COURSE  
Effective Fall 2014

MUS 478  Music Therapy: Quantitative and Qualitative Research  
Spring of odd years. 3(3-0) P: MUS 270 and MUS 271 RB: MUS 476 and PSY 101 R: Open to students in the College of Music.  
Development of skills in conducting. Understanding quantitative and qualitative research in music therapy.  
DELETE COURSE  
Effective Fall 2014

MUS 860  Seminar in History and Philosophy of Music Education  
Philosophical Considerations in Music Education  
Fall of every year. 3(3-0)  
Philosophical views regarding the nature of music education leading to the development of a personal, professional philosophy of music education.  
Effective Spring 2009  Effective Summer 2015

MUS 864  Research in Music Education and Music Therapy  
Research in Music Education  
Fall of every year. Summer of even years. 3(3-0)  
Effective Fall 2007  Effective Summer 2015

MUS 960  Seminar in Measurement in Music Education  
Spring of odd years. 3(3-0) RB: (MUS 864 and MUS 965) or approval of school. RB: MUS 864 and MUS 965 R: Open to graduate students in the Master of Music in Music Education. R: Open to graduate students in the College of Music.  
Theory and practice of measuring musical behavior in terms of aptitude and achievement. Current trends in cognitive, affective, and psychomotor measurement in music.  
Effective Fall 2007  Effective Fall 2014
MUS 965  Advanced Research Methods in Music Education
Conducting Research in Music Education
Spring of even years. 3(3-0) RB: MUS 864 R: Open to graduate students in the College of Music. Music education research projects using computerized statistical analysis. Music education research projects using a diverse array of methods, designs, and analytical techniques.
Effective Spring 2009 Effective Summer 2015

MUS 966  Seminar in Qualitative Research in Music Education
Fall of odd years. 3(3-0) P: MUS 864 R: Open to graduate students in the College of Music. Techniques of qualitative research in educational settings. Design and analysis, with a critical review of selected current research studies in music education.
Effective Fall 2008 Effective Fall 2014

MUS 999  Doctoral Dissertation Research
Fall of every year. Spring of every year. Summer of every year. 1 to 24 credits. A student may earn a maximum of 99 credits in all enrollments for this course. A student may earn a maximum of 36 credits in all enrollments for this course. R: Open to doctoral students in the College of Music. Approval of college.
Doctoral dissertation research. Request the use of the Pass-No Grade (P-N) system.
Effective Fall 2007 Effective Fall 2014

COLLEGE OF NATURAL SCIENCE

NSC 100  Drew Freshman Seminar
Fall of every year. 2(2-0) P: (MTH 1825 or concurrently) or (MTH 116 or concurrently) or (MTH 132 or concurrently) R: Approval of college.
PCR Academic and non-academic skills and strategies for successful college transition. SA: NSC 201
Effective Summer 2010 Effective Fall 2014

NSC 102  Preprofessional Freshman Seminar
Fall of every year. Spring of every year. 1(1-0) R: Open to freshmen or approval of department.
PCR Overview of human health care professions with emphasis on academic and nonacademic undergraduate preparation, campus resources, communication and computer skills, and collaborative learning.
Effective Fall 2013 Effective Fall 2014

NSC 103  Strategies for Success
Fall of every year. Spring of every year. 1(1-0) R: Approval of department.
PCR Development of effective academic, problem-solving, and other strategies necessary for college and career success. Discussion groups, study groups, and peer mentoring. Connections with University resources.
DELETE COURSE
Effective Fall 2014

NSC 104  Freshman Seminar Away in Natural Sciences
Fall of every year. 2(1-2) R: Open to freshmen in the College of Natural Science. Approval of college.
PCR Introduction to scientific scholarship and academic inquiry via an intensive empirical learning experience. Strategies for academic success in science and enhancing the college experience.
Effective Fall 2010 Effective Fall 2014
NSC 192

Environmental Issues Seminar
Fall of every year. Spring of every year. 1 credit. Interdepartmental with Agriculture and Natural Resources and Communication Arts and Sciences and Engineering and Social Science. A student may earn a maximum of 4 credits in all enrollments for this course. R: Open only to students in the College of Agriculture and Natural Resources or College of Engineering or College of Natural Science or College of Communication Arts and Sciences or College of Social Science. Approval of college. R: Open only to students in the College of Natural Science or the College of Social Science. Approval of college.
PCR
Environmental issues and problems explored from a variety of perspectives, including legal, scientific, historical, political, socio-economic, and technical points of view.

Effective Spring 2003 Effective Fall 2014

NSC 200

Drew Sophomore Seminar
Fall of every year. 2(2-0) P: NSC 100 or approval of college R: Approval of college.
PCR
Career exploration and preparation through service-learning experience.
SA: NSC 202
Effective Summer 2010 Effective Fall 2014

NSC 203

Drew Laboratory Directed Studies
Fall of every year. Spring of every year. Summer of every year. 1 to 2 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open to students in the Charles Drew Science Enrichment Laboratory.
PCR
Using topics related to a faculty member's ongoing research, students explore the relationship between science and technology and social issues.

Effective Spring 2012 Effective Fall 2014

NSC 292

Applications in Environmental Studies
Fall of every year. Spring of every year. 2(1-2) Interdepartmental with Agriculture and Natural Resources and Communication Arts and Sciences and Engineering and Social Science. P: NSC 192 R: Open only to students in the Specialization in Environmental Studies. R: Open to students in the Environmental Studies Specialization.
PCR
Community engagement project. Projects vary depending on student's major and area of environmental interest.

Effective Fall 2004 Effective Fall 2014

NSC 390

Special Problems
Fall of every year. Spring of every year. Summer of every year. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department.
PCR
Faculty directed individualized study of an interdisciplinary problem.

Effective Summer 2000 Effective Fall 2014

NSC 475

International Field Studies in Natural Science
Summer of every year. 1 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course. R: Approval of college; application required.
PCR
Contemporary issues in environmental, geological, biological or human health-related sciences of a specific study abroad location. Request the use of ET-Extension to postpone grading. The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment. 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 2010 Effective Fall 2014

NSC 476

Natural Science Field Studies in Selected U.S.A. Locations
Summer of every year. 1 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course. R: Approval of college; application required.
PCR
Contemporary issues in environmental, geological, biological or human health-related sciences of a selected domestic study away location. 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 2010 Effective Fall 2014
PART III – COURSE CHANGES

NSC 490
Special Problems
Fall of every year. Spring of every year. Summer of every year. 1 to 4 credits. A student may earn a max-imum of 6 credits in all enrollments for this course. R: Approval of department.
PCR
Effective Summer 2000 Effective Fall 2014

NSC 491
Selected Topics
Fall of every year. Spring of every year. Summer of every year. 1 to 3 credits. A student may earn a max-imum of 6 credits in all enrollments for this course. R: Approval of department.
PCR
Selected interdisciplinary topics not normally covered in other courses.
Effective Summer 2000 Effective Fall 2014

NSC 493
Cooperative Education
Internships in Natural Science
Fall of every year. W. K. Kellogg Biological Station, W. K. Kellogg Biological Station, W. K. Kellogg Biological Station Spring of every year. W. K. Kellogg Biological Station, W. K. Kellogg Biological Station, W. K. Kellogg Biological Station Summer of every year. W. K. Kellogg Biological Station, W. K. Kellogg Biological Station, W. K. Kellogg Biological Station 1 credit. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. P: Completion of Tier I Writing Requirement. R: Approval of college; application required. R: Open to sophomores or juniors or seniors in the College of Natural Science. Approval of college; application required. Not open to students with credit in NSC 497.
PCR
Educational employment experiences in industry and government related to the student’s major. Educational employment experience applying scientific and or research training in industry government and non-profit. Request the use of the Pass-No Grade (P-N) system.
Effective Summer 2008 Effective Summer 2015

NSC 495
Capstone in Human Biology (W)
Fall of every year. Spring of every year. 2(2-0) P: Completion of Tier I writing requirement. R: Open only to seniors in the Human Biology or Lyman Briggs Human Biology major. R: Open to seniors in the Human Biology Major.
PCR
Integration of human biology disciplines with a focus on health and disease.
Effective Spring 2002 Effective Fall 2014

NSC 496
Directed Study in Human Biology
Fall of every year. Spring of every year. Summer of every year. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P: Completion of Tier I writing requirement.
PCR
Directed studies in human biology.
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

NSC 497
Internship in Human Biology
Fall of every year. Spring of every year. Summer of every year. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P: Completion of Tier I writing requirement. Not open to students with credit in NSC 493.
PCR
Practical experience applying human biology training outside the classroom setting.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.
Effective Spring 2000 Effective Fall 2014

NSC 498
Research in Human Biology
Fall of every year. Spring of every year. Summer of every year. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P: Completion of Tier I writing requirement.
PCR
Research in faculty laboratories.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.
Effective Spring 2000 Effective Fall 2014
NC 499  Research
Fall of every year. Spring of every year. Summer of every year. 1 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to juniors or seniors in the College of Natural Science with a teacher certification option. R: Open to juniors or seniors in the College of Natural Science.
PCR  Research in faculty laboratories. Oral and written presentations. Effective Summer 2000 Effective Fall 2014

PROGRAM IN NEUROSCIENCE

NEU 301  Introduction to Neuroscience I
Fall of every year. 3(3-0) P: (BS 161 or BS 181H or LB 145) and (BS 162 or BS 191H or LB 145) RB: PSY 101 R: Open to undergraduate students in the Program in Neuroscience.
PCR  Survey of the field of neuroscience, including molecular, cellular, and autonomic, sensory and motor systems. Effective Fall 2012 Effective Fall 2014

NEU 302  Introduction to Neuroscience II
Spring of every year. 3(3-0) P: NEU 301 RB: PSY 101 R: Open to undergraduate students in the Program in Neuroscience.
PCR  Survey of brain-based behavioral and cognitive systems and related human diseases. Effective Fall 2012 Effective Fall 2014

NEU 311L  Neuroscience Laboratory (W)
Fall of every year. Spring of every year. 2(1-3) P: ((NEU 301 or concurrently) and completion of Tier I writing requirement) and (STT 201 or STT 231 or STT 421) and (BS 171 or BS 191H or LB 145) RB: PSY 101 R: Open to undergraduate students in the Program in Neuroscience.
PCR  Overview of neuroscience research methodology, including experimental design, data analysis, and presentation of results. Effective Fall 2012 Effective Fall 2014

NEU 420  Neurobiology of Disease
Spring of every year. 3(3-0) P: NEU 301 and NEU 302 R: Open to undergraduate students in the Program in Neuroscience.
PCR  Genetic, molecular, cellular, systems, and behavioral abnormalities that contribute to the manifestation of neurologic and psychiatric diseases and disorders that affect the nervous system. Effective Fall 2012 Effective Fall 2014

NEU 490  Special Problems in Neuroscience
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. P: (PSY 101 and NEU 301) and (STT 201 or STT 231 or STT 421) RB: NEU 302 and NEU 311L R: Open to juniors or seniors. Approval of department. R: Open to juniors or seniors. Approval of department. A student may earn a maximum of 15 credits A student may earn a maximum of 15 credits in NEU 490 and NEU 492.
PCR  Students work under the direction of a faculty member on a selected research problem. Effective Fall 2013 Effective Fall 2014

NEU 492  Special Topics in Neuroscience
Fall of every year. Spring of every year. Summer of every year. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: PSY 101 R: Open to sophomores or juniors or seniors. Approval of department. R: Open to sophomores or juniors or seniors. Approval of department. A student may earn a maximum of 15 credits A student may earn a maximum of 15 credits in NEU 490 and NEU 492.
PCR  Current topics proposed by faculty that supplement regular course offerings. Effective Fall 2013 Effective Fall 2014
COLLEGE OF NURSING

NUR 110 Exploring Nursing
Fall of every year. Spring of every year. 2(2-0)
PCR Introduction to the bio-psycho-social conceptual model of persons in relation to nursing and health. Core concepts and theoretical foundations that frame the art and science of nursing. Development of the profession from inception into contemporary practice and its relationship to the U.S. healthcare system.
DELETE COURSE
Effective Fall 2014

NUR 300 Pathophysiology
Fall of every year. Spring of every year. Summer of every year. 4(4-0) P: (ANTR 350) and (PSL 310 or PSL 250) P: ANTR 350 and (PSL 310 or PSL 250) RB: Preprofessional students entering patient care disciplines. Not open to students with credit in NUR 341.
PCR How disrupting normal structures and functions of the human body leads to disease processes from the cellular to the multi-system level. Critical examination of the mechanisms underlying signs and symptoms.
SA: NUR 341
Effective Spring 2008 Effective Summer 2015

NUR 325 Transitions to BSN Practice
Fall of every year. Spring of every year. 2(2-0) P: NUR 300 or NUR 301 R: Open to students in the Nursing Major.
PCR Application of curricular concepts to nursing practice, role differentiation and contribution of BSN nurse to healthcare.
Effective Fall 2013 Effective Summer 2014

NUR 330 Health Assessment and Nursing Therapeutics
Fall of every year. Spring of every year. Summer of every year. 7(3-10) P: NUR 300 R: Open to students in the Nursing Major. C: PHM 350 concurrently and NUR 340 concurrently.
PCR Normal physiology and pathophysiology. Theories of growth and development across the life span. Therapeutic communication and physical, psychosocial, cultural and spiritual assessment techniques and mastery of basic nursing therapeutics. Understanding the significance of abnormal physiological health transitions of the adult.
Effective Fall 2012 Effective Summer 2014

NUR 336 Health Promotion for the BSN
Spring of every year. Summer of every year. 4(4-0) RB: Registered Nurse admitted to the RN-BSN program. R: Open to students in the Nursing Major.
PCR Health promotion and risk reduction for individuals across the lifespan in the context of their families and environments including those from diverse and vulnerable populations.
Effective Fall 2013 Effective Summer 2014

NUR 340 Foundations of Nursing Practice
Fall of every year. Spring of every year. Summer of every year. 4(4-0) P: (NUR 300) and completion of Tier I writing requirement P: (NUR 300 or (NUR 325 or concurrently)) and completion of Tier I writing requirement C: PHM 350 concurrently or NUR 330 concurrently.
PCR Theories and principles underlying professional nursing practice. Development of basic principles for using empirical evidence and the research process to guide practice.
Effective Fall 2012 Effective Summer 2014

NUR 355 Integrative Seminar I
Spring of every year. Summer of every year. 2(2-0) P: NUR 300 P: NUR 325 and NUR 340 RB: Registered Nurse admitted to the RN-BSN program. R: Open to students in the Nursing Major. C: NUR 340 concurrently.
PCR Critical appraisal of literature related to health promotion and risk reduction in preparation for an evidence based practice project. Request the use of the Pass-No Grade (P-N) system.
Effective Fall 2013 Effective Summer 2014
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Term Available</th>
<th>Prerequisites</th>
<th>PCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 360</td>
<td>Acute Nursing Care of Adults and Older Adults</td>
<td>Fall of every year. Spring of every year. 8(4-12)</td>
<td>P: NUR 330 and NUR 340 C: NUR 370 concurrently.</td>
<td>Integration of concepts and theories into beginning level Nursing practice. Examination of dynamic interrelationship between professional, scholarly nursing practice, and the health and wellness of diverse persons and populations across the life span. <strong>Effective Summer 2012 Effective Spring 2014</strong></td>
</tr>
<tr>
<td>NUR 400</td>
<td>Pharmacology for Nurses</td>
<td>Spring of every year. 3(3-0)</td>
<td>P: NUR 313 and NUR 319 and NUR 341</td>
<td>Principles of nursing management in drug therapy, drug classifications and patient-related variables. Assessment and evaluation of patient responses in relation to health, age, lifestyle, gender, ethnicity and other cultural factors. <strong>DELETE COURSE Effective Fall 2014</strong></td>
</tr>
<tr>
<td>NUR 402</td>
<td>Global Health</td>
<td>Spring of every year. Abroad, Africa, Abroad, Africa, Abroad, Africa 3(3-0)</td>
<td></td>
<td>Factors and dynamics that affect the health of human populations and population status. Role of national governments and international agencies in the policy and planning of health care resources and services. <strong>DELETE COURSE Effective Fall 2014</strong></td>
</tr>
<tr>
<td>NUR 422</td>
<td>Nursing in London</td>
<td>Summer of every year. 5(5-0) R: Approval of college; application required.</td>
<td></td>
<td>Historical evolution of nursing in the National Health Service: British nursing education, hospital and community health nursing, standards of care, research, and management. Influence of professional nursing upon British national health policies. 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. <strong>Effective Summer 2014 Effective Fall 2014</strong></td>
</tr>
<tr>
<td>NUR 424</td>
<td>History of Nursing in the United States</td>
<td>Spring of every year. On Demand. 2(2-0)</td>
<td></td>
<td>Development of professional nursing education and practice from its inception in the United States. Reading historical documents and identifying specific concepts relative to nursing history. Historical research as a valid means of scholarly inquiry. <strong>Effective Spring 2005 Effective Spring 2014</strong></td>
</tr>
<tr>
<td>NUR 426</td>
<td>Theoretical Basis for Critical Care</td>
<td>Fall of every year. Spring of every year. Summer of every year. 2(2-0)</td>
<td>P: NUR 304 or NUR 360 P: NUR 360 R: Open to seniors in the College of Nursing.</td>
<td>Nursing care of clients in critical care, requiring synthesis of pathophysiologic, pharmacologic, and therapeutic concepts. Family theory, stress-adaptation, psychosocial concepts and legal and ethical issues. <strong>Effective Summer 2008 Effective Spring 2014</strong></td>
</tr>
<tr>
<td>NUR 429</td>
<td>Health Care in Ghana</td>
<td>Summer of every year. Abroad, Africa, Abroad, Africa, Abroad, Africa 2(2-0) R: Approval of college.</td>
<td></td>
<td>Major health issues and health care system in western and traditional Ghana culture. Health status indicators and determinants; major programs and strategies; organization of the health care system; access to and payment for care; role, image and status of health care providers; and the interface between western and traditional Ghana health care. <strong>DELETE COURSE Effective Summer 2014</strong></td>
</tr>
</tbody>
</table>
NUR 435  Nursing Care of the Childbearing Family  
Fall of every year. Spring of every year. 4(2-6) P: NUR 360 and NUR 370 C: NUR 440 concurrently.  
PCR  Health promotion and risk assessment of individuals and families during pregnancy and birth. Therapeutic communication and assessment skills for providing holistic care to culturally diverse childbearing families during the prenatal, intrapartum, and postpartum periods. Caring for mother and baby in utero and after birth.  
**Effective Summer 2012**\(^*\) **Effective Spring 2014**

NUR 440  Nursing Care of Children, Adolescents and Their Families  
Fall of every year. Spring of every year. 4(2-6) P: NUR 360 and NUR 370 C: NUR 435 concurrently.  
PCR  Theoretical concepts and clinical application of nursing care of infants, children, and adolescents in varied health care and community settings. Synthesis of pathophysiologic, pharmacologic, and therapeutic concepts. Family-centered care of children within developmental, cultural, ethnic, religious, and social structures.  
**Effective Summer 2012**\(^*\) **Effective Spring 2014**

NUR 450  Integrative Seminar  
Fall of every year. Spring of every year. 2(4-0) C: NUR 435 concurrently or NUR 440 concurrently.  
PCR  Integration of concepts and theories into intermediate-level nursing practice. Dynamic interrelationship between professional, evidence-based practice, and health and wellness throughout the lifespan.  
**Effective Spring 2013**\(^*\) **Effective Spring 2014**

NUR 455  Integrative Seminar II  
Fall of every year. Summer of every year. 2(2-0) P: NUR 340 and NUR 336 and NUR 355 and NUR 400 P: NUR 336 and NUR 355 RB: Registered Nurse admitted to the RN-BSN program. R: Open to students in the Nursing Major. Not open to students with credit in NUR 450. C: NUR 465 concurrently.  
PCR  Integration of professional and scholarly nursing practice culminating in an evidence-based practice project. Request the use of the Pass-No Grade (P-N) system.  
**Effective Fall 2012**\(^*\) **Effective Spring 2014**

NUR 460  Leadership Clinical Immersion  
Leadership in Clinical Practice  
Fall of every year. Spring of every year. Summer of every year. 5(2-9) 5(2-3) P: (NUR 435 and NUR 440 and NUR 450) and completion of Tier I writing requirement P: (NUR 445 and NUR 436 and NUR 437) and completion of Tier I writing requirement C: NUR 470 concurrently or NUR 480 concurrently. C: NUR 475 concurrently.  
PCR  Theories, principles, and practices of leadership, management, and nursing care delivery systems in a variety of agency settings. Application of theories and principles in a mentored practicum. A capstone course that includes a precepted practicum to facilitate the student’s transition to professional practice. The focus is on the application of leadership concepts, theories, and principles.  
**Effective Fall 2012**\(^*\) **Effective Fall 2015**

NUR 465  Leadership Immersion  
Fall of every year. Summer of every year. 4(3-1) P: NUR 355 and NUR 340 and NUR 336 and NUR 400 P: NUR 355 and NUR 336 RB: Registered Nurse admitted to the RN-BSN program. R: Open to students in the Nursing Major. Not open to students with credit in NUR 460. C: NUR 455 concurrently.  
PCR  Integration and application of theories, principles and practices of nursing leadership and management into contemporary practice settings.  
**Effective Fall 2012**\(^*\) **Effective Spring 2014**
NUR 470  Community and Population Health Nursing
Fall of every year. Spring of every year. Summer of every year. 4(2-6) P: NUR 435 and NUR 440 and NUR 450  P: NUR 435 or (NUR 455 and NUR 465) C: NUR 460 concurrently and NUR 480 concurrently.
PCR  Theoretical and practicum basis for community-oriented population nursing practice. Promoting and protecting the health of the public using health promotion, risk reduction, and disease management and control strategies with vulnerable persons and populations. Community assessment, epidemiologic, environmental, change, political action, and case-management frameworks are used to guide evidence-based nursing care delivery to persons, families, and populations in community settings.
Effective Fall 2012  Effective Spring 2014

NUR 480  Role Transition Seminar
Fall of every year. Spring of every year. Summer of every year. 3(6-0) P: (NUR 450) and completion of Tier I writing requirement  P: (NUR 435 and NUR 440 and NUR 450) and completion of Tier I writing requirement C: NUR 460 concurrently or NUR 470 concurrently.
PCR  Advanced-level evidence-based practice for transition to entry-level nursing. Ethical decision and policy-making at the organization level.
Effective Spring 2013  Effective Spring 2014

NUR 485  Integrative Seminar III
Fall of every year. Spring of every year. 2(2-0) P: NUR 355 and NUR 340 and NUR 400 and NUR 455 and NUR 336  P: NUR 455 and NUR 465 RB: Registered Nurse admitted to the RN-BSN program. R: Open to students in the Nursing Major. Not open to students with credit in NUR 480. C: NUR 470 concurrently.
PCR  Examination of the influence and responsibility of professional nursing to society Request the use of the Pass-No Grade (P-N) system.
Effective Fall 2012  Effective Summer 2014

NUR 490  Independent Study in Nursing
Fall of every year. Spring of every year. Summer of every year. On Demand. 1 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course. R: Open only to students in the College of Nursing. Not open to PreNursing majors. Approval of college. R: Approval of college.
PCR  Individualized area of study in Nursing.
Effective Fall 1998  Effective Summer 2014

NUR 491  Special Topics
Fall of every year. Spring of every year. Summer of every year. On Demand. 2 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to students in the College of Nursing. Not open to PreNursing majors. R: Approval of college.
PCR  Exploration of selected issues in nursing.
Effective Fall 1998  Effective Summer 2014

NUR 806  Research for Advanced Practice Nurses
Fall of every year. Spring of every year. 3(3-0) P: NUR 802 and NUR 804 R: Open to graduate students in the College of Nursing.
Prepares advanced practice Nurses who are proficient in the ethical utilization and clinical application of research including problem identification and evaluation to provide high quality care and improve practice. Prepares advanced practice nurses to be proficient in the ethical and clinical application of research including problem identification and critically evaluate the evidence to provide high quality care and improve practice.
Effective Fall 2012  Effective Summer 2014

NUR 836  Primary Care Management of the Adult and Aged I
Spring of every year. 5(3-6) P: NUR 835 P: NUR 835 and NUR 807 R: Open to graduate students in the Master of Science in Nursing or in the Nurse Practitioner Graduate Certificate. Principles and issues of health care management for adult and gerontological advanced practice nurses. Health promotion, risk identification, disease prevention, and acute problems for the adult and aged from culturally diverse backgrounds. The role of risk factors and normal aging changes on health. Analysis of adult and aging health topics using appropriate models, frameworks, and evidence-based research.
Effective Fall 2012  Effective Fall 2014
NUR 930  Methods In Clinical Research  
Spring of every year. Summer of every year. 3(3-0) R: Open to doctoral students in the College of Nursing or approval of college. 
Advanced research designs, measurement and data collection strategies. Draws on a broad range of behavioral and health disciplines relevant to nursing. Logic of statistical models used in the evaluation of research designs and measures. 
Effective Spring 2012 Effective Summer 2014

NUR 989  DNP Synthesis Project  
Spring of every year. 1 to 3 credits. 1 to 4 credits. A student may earn a maximum of 16 credits in all enrollments for this course. P: NUR 962 and NUR 920 and NUR 964 R: Open to doctoral students in the College of Nursing. 
Application of nursing and leadership theories for the development implementation and evaluation of an evidence-based intervention to improve health care outcomes for a selected population or system outcomes for a selected organization. Demonstrate synthesis of didactic coursework and application to practice by learning a practice change innovation to address a health care problem and improve health outcomes. 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 2 semesters after the end of the semester of enrollment. 
Effective Spring 2015 Effective Summer 2015

DEPARTMENT OF OSTEOPATHIC MEDICAL SPECIALTIES

IM 665  Emergency Medicine Advanced Clerkship  
Fall of every year. Spring of every year. Summer of every year. 1 to 20 credits. A student may earn a maximum of 30 credits in all enrollments for this course. P: IM 657 R: Open to graduate-professional students in the College of Osteopathic Medicine. 
Advanced acute evaluation and management of patients in the hospital emergency department and other locations. 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 4 semesters after the end of the semester of enrollment. 
Effective Summer 2014

DEPARTMENT OF PHARMACOLOGY AND TOXICOLOGY

PHM 802  Cellular, Molecular and Integrated Systems Pharmacology  
Spring of every year. 4(4-0) 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 2014 Effective Spring 2015

DEPARTMENT OF PHILOSOPHY

PHL 999  Doctoral Dissertation Research  
Fall of every year. Spring of every year. Summer of every year. 1 to 12 credits. A student may earn a maximum of 75 credits in all enrollments for this course. A student may earn a maximum of 36 credits in all enrollments for this course. R: Approval of department. 
Doctoral dissertation research. Request the use of the Pass-No Grade (P-N) system. 
Effective Summer 2002 Effective Fall 2014
PART III – COURSE CHANGES

DEPARTMENT OF PHYSICS AND ASTRONOMY

PHY 234B  Calculus Concepts in Physics II  
Spring of every year. Summer of every year. 2 credits. P: (PHY 232 or PHY 232C) and ((MTH 133 or concurrently) or (MTH 153H or concurrently) or (LB 119 or concurrently)) Not open to students with credit in LB 274 or PHY 184 or PHY 232 or PHY 232c or PHY 184B. Not open to students with credit in LB 274 or PHY 184 or PHY 184B.  
Electricity and magnetism. This course is given in the competency based instruction format.  
Effective Fall 2014

DEPARTMENT OF RADIOLOGY

ANTR 890  Topics in Anatomy and Structural Biology  
Fall of every year. Spring of every year. Summer of every year. 1 to 2 credits. 1 to 4 credits. A student may earn a maximum of 5 credits in all enrollments for this course. A student may earn a maximum of 8 credits in all enrollments for this course. R: Open to graduate students. Approval of department.  
Independent study in gross anatomy, histology, virtual microscopy, neuroanatomy, physical anthropology or forensic radiology.  
Effective Spring 2009 Effective Summer 2015

DEPARTMENT OF ROMANCE AND CLASSICAL STUDIES

CLA 140  Greek and Roman Mythology  
Fall of every year. 3(3-0)  
PCR Introduction to Greek and Roman myths, with emphasis on myth as social discourse and as an influence on ancient poets and thinkers.  
Effective Fall 2012 Effective Spring 2014

CLA 160  Myth, Legend, and J.R.R. Tolkien  
Spring of every year. 3(3-0) Interdepartmental with English.  
PCR Myth and myth-making in Tolkien's The Lord of the Rings and his other works. Ways of reading myth and legends that served as Tolkien's sources and inspiration.  
Effective Fall 2012 Effective Spring 2014

CLA 201  The Greek and Roman World in Film  
Spring of even years. 3(3-0)  
PCR Portrayals of Greek and Roman cultures in film with emphasis on the interactions between the ancient and modern worlds.  
Effective Fall 2012 Effective Spring 2014

CLA 309  Greek Civilization  
Fall of every year. 3(3-0)  
PCR Survey of salient aspects of ancient Greek civilization and modern approaches to its study.  
SA: CLA 210  
Effective Fall 2012 Effective Spring 2014

CLA 310  Roman Civilization  
Spring of every year. 3(3-0)  
PCR Survey of salient aspects of Roman civilization and modern approaches to its study.  
SA: CLA 211  
Effective Fall 2012 Effective Spring 2014

CLA 333  Roman Law (W)  
Fall of every years. 3(3-0) P: Completion of Tier I writing requirement. R: Not open to freshmen.  
PCR Introduction to Roman private law using a case study approach.  
Effective Fall 2012 Effective Spring 2014
CLA 360  Ancient Novel in English Translation (W)
Spring of even years. 3(3-0) P: Completion of Tier I Writing Requirement R: Not open to freshmen.
PCR  Ancient Greek and Roman novels. The role of popular literature in Greco-Roman society.
**Effective Fall 2012 Effective Spring 2014**

CLA 400  Senior Seminar: Women in Ancient Greece and Rome (W)
Spring of odd years. 3(3-0) Interdepartmental with Women's Studies. P: Completion of Tier I Writing Requirement R: Not open to freshmen or sophomores.
PCR  Image, role, and status of women in Greek society as seen through literary sources.
**Effective Fall 2012 Effective Spring 2014**

CLA 412  Senior Seminar: Greek & Roman Religion (W)
Spring of even years. 3(3-0) P: Completion of Tier I Writing Requirement R: Not open to freshmen or sophomores.
PCR  Study of Greek and Roman beliefs and cults with emphasis on society, politics and interactions of paganism and Christianity.
**Effective Fall 2012 Effective Spring 2014**

CLA 460  Senior Seminar: Love and Desire in the Ancient World (W)
Spring of even years. 3(3-0) P: Completion of Tier I writing requirement. R: Not open to freshmen or sophomores.
PCR  Greek and Roman conceptions, attitudes, beliefs and responses to love, sex and desire.
**Effective Fall 2012 Effective Spring 2014**

CLA 491  Topics in Classical Studies
Spring of even years. 3(3-0) RB: Completion of Tier I Writing requirement R: Open to juniors or seniors.
PCR  Special topics supplement regular course offerings.
**Effective Fall 2012 Effective Spring 2014**

CLA 499  Senior Thesis
Fall of every year. Spring of every year. 1(1-0) P: CLA 309 or CLA 310 or CLA 333 or CLA 360 R: Open to seniors. C: CLA 400 concurrently or CLA 460 concurrently.
PCR  Senior thesis capstone under the direction of a faculty member.
**Effective Fall 2012 Effective Spring 2014**

FRN 101  Elementary French I
Fall of every year. Spring of every year. Summer of every year. 4(4-1) RB: Not open to students with prior study of the language. Not open to students with credit in FRN 150.
PCR  Practice in using and understanding French to develop listening, speaking, reading, and writing skills. Pronunciation, grammar, vocabulary, and cultural topics.
**Effective Fall 2013 Effective Spring 2014**

FRN 102  Elementary French II
Fall of every year. Spring of every year. 4(4-1) P: (FRN 101) or designated score on French Placement test Not open to students with credit in FRN 150.
PCR  Further practice in using and understanding French to develop listening, speaking, reading, and writing skills. Pronunciation, grammar, vocabulary, and cultural topics.
**Effective Fall 2014 Effective Spring 2014**

FRN 150  Intensive Review of Elementary French
Fall of every year. Spring of every year. 5(5-1) P: Designated score on French Placement test RB: Two years of high school French or the equivalent. Not open to students with credit in FRN 101 or FRN 102.
PCR  Intensive review of elementary-level French for students who have had at least two years of French at the secondary level and who need to strengthen communication skills and knowledge of French language and culture.
**Effective Fall 2013 Effective Spring 2014**
PART III – COURSE CHANGES

FRN 201 Second-Year French I
Fall of every year. Spring of every year. 4(4-0) P: (FRN 102 or FRN 150) or designated score on French Placement test
PCR Intermediate-level review and development of aural comprehension, speaking, reading, and writing skills. Topics in the cultures of the French-speaking world.
Effective Fall 2012 Effective Spring 2014

FRN 202 Second-Year French II
Fall of every year. Spring of every year. 4(4-0) P: FRN 201
PCR Further review and development of aural comprehension, speaking, reading, and writing skills. Topics in the cultures of the French-speaking world.
Effective Fall 2012 Effective Spring 2014

FRN 290 Independent Study
Fall of every year. Spring of every year. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. R: Approval of department.
PCR Special projects arranged by an individual student and a faculty member in areas supplementing regular course offerings.
Effective Fall 2012 Effective Spring 2014

FRN 320 Self-Expression in Writing (W)
Fall of every year. Spring of every year. 3(3-0) P: ((FRN 202) or designated score on French Placement test) and Completion of Tier I Writing Requirement
PCR Writing practice in a variety of forms. Reading of excerpts from French and Francophone literature in order to enrich vocabulary and analyze style. Grammar review.
Effective Spring 2014

FRN 321 Oral Expression
Fall of every year. Spring of every year. 3(3-0) P: (FRN 202) or designated score on French Placement test
PCR Present-day spoken French. Discussions on various aspects of French culture and social interaction, mastery of advanced vocabulary. Readings chosen from current magazines and newspapers and complemented by Web exercises and video materials.
Effective Fall 2012 Effective Spring 2014

FRN 330 French Phonetics
Fall of every year. Spring of every year. 3(3-0) P: (FRN 202) or designated score on French Placement test
PCR Analysis of French pronunciation for listening and speaking.
Effective Fall 2012 Effective Spring 2014

FRN 340 Introduction to Reading French Literature (W)
Fall of every year. Spring of every year. 3(3-0) P: (FRN 202 and FRN 320) and Completion of Tier I Writing Requirement
PCR Close reading and interpretation of French drama, poetry, fiction, and other prose forms.
Effective Spring 2014

FRN 400 Reading French for Graduate Students
Spring of every year. 3(3-0) R: Not open to freshmen or sophomores.
PCR Intensive study of French for graduate students needing a reading knowledge of the language.
Effective Fall 2012 Effective Spring 2014

FRN 415 Introduction to French Studies I: Metropolitan France
Fall of every year. 3(3-0) P: FRN 320 and FRN 340
PCR Aspects of the culture of France in its many manifestations: literary, artistic, musical, linguistic. Emphasis on historical and social analysis of French cultural artifacts.
Effective Fall 2012 Effective Spring 2014

FRN 416 Introduction to French Studies II: Francophone Cultures
Spring of every year. 3(3-0) P: FRN 320 and FRN 340
PCR Exploration of French culture in the Francophone world outside metropolitan France.
Effective Fall 2012 Effective Spring 2014
FRN 425  Advanced Studies in French Language
Fall of every year. 3(3-0) P: FRN 320
PCR  To broaden advanced students' capacities for self-expression. Accurate form and
appropriate expression through translation, composition, or creative writing. Examination
of contrasting styles of expression in view of developing nuances.
Effective Fall 2012  Effective Spring 2014

FRN 430  French Linguistics
Spring of every year. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this
course. P: FRN 320 and FRN 330
PCR  Key issues in French linguistics and contrastive structures of French and English.
Effective Fall 2012  Effective Spring 2014

FRN 445  Theme-Based Seminar
Fall of every year. Spring of every year. 3(3-0) A student may earn a maximum of 9 credits in all
enrollments for this course. P: FRN 320 and FRN 340
PCR  Organized by themes such as: Francophone women, the uses of myth, the individual and
society. Texts may be of diverse literary and artistic forms and from different historical
periods.
Effective Fall 2012  Effective Spring 2014

FRN 446  History-Based Seminar
Fall of every year. Spring of every year. 3(3-0) A student may earn a maximum of 9 credits in all
enrollments for this course. P: FRN 320 and FRN 340
PCR  Organized by century or artistic period. Examination of the historical, intellectual, and
artistic climate surrounding texts.
Effective Fall 2012  Effective Spring 2014

FRN 447  Genre-Based Seminar
Fall of every year. Spring of every year. 3(3-0) A student may earn a maximum of 9 credits in all
enrollments for this course. P: FRN 320 and FRN 340
PCR  Based on significant literary or artistic genre such as poetry, novel, short story, essay,
theater, film or musical theater from either a synchronic or diachronic perspective.
Effective Fall 2012  Effective Spring 2014

FRN 490  Independent Study
Fall of every year. Spring of every year. 1 to 4 credits. A student may earn a maximum of 9 credits
in all enrollments for this course. R: Not open to sophomores or freshmen. Approval of department.
PCR  Special projects arranged by an individual student and a faculty member in areas
supplementing regular course offerings.
Effective Fall 2012  Effective Spring 2014

FRN 491  Special Topics in French
Fall of every year. Spring of every year. 3(3-0) R: Not open to sophomores or freshmen. Approval
of department.
PCR  Special topics supplementing regular course offerings proposed by faculty on a group
study basis.
Effective Fall 2012  Effective Spring 2014

FRN 492  Senior Writing Project
Fall of every year. Spring of every year. Summer of every year. 1(1-0) R: Open to seniors in the
French major.
PCR  Research and preparation of a paper on an interdisciplinary subject that synthesizes at
least three areas of a major's undergraduate education. Students work under the
supervision of a faculty member.
Effective Fall 2012  Effective Spring 2014

LTN 101  Elementary Latin I
Fall of every year. 4(4-0) RB: No previous experience in Latin or designated score on Latin
placement test.
PCR  Fundamentals of vocabulary, grammar, and syntax. Translation of elementary readings.
Effective Fall 2012  Effective Spring 2014
PART III – COURSE CHANGES

LTN 102  Elementary Latin II
Spring of every year. 4(4-0) P: LTN 101
PCR  Continued study of the fundamentals of vocabulary, grammar, and syntax. Translation of elementary readings.
Effective Fall 2012 Effective Spring 2014

LTN 206  Nepos and Latin Prose
Fall of even years. 3(3-0) P: LTN 102
PCR  Selected lives of Cornelius Nepos in the original Latin, with readings in other early and Republican prose authors.
Effective Fall 2012 Effective Spring 2014

LTN 208  Catullus and Lucretius
Spring of odd years. 3(3-0) P: LTN 102
PCR  Readings from Catullus's poems and from Lucretius's "De Rerum Natura" in Latin with additional readings.
Effective Fall 2012 Effective Spring 2014

LTN 211  Livy and Roman Historiography
Fall of odd years. 3(3-0) P: LTN 102
PCR  Selections from Livy's "Ab Urbe Condita" in the original Latin.
Effective Fall 2012 Effective Spring 2014

LTN 221  Virgil and Latin Poetry
Spring of even years. 3(3-0) P: LTN 102
PCR  Readings from Virgil's "Eclogues", "Georgics", and "Aeneid" in Latin. Additional readings from other Latin poets of the later Republic and Augustan periods.
Effective Fall 2012 Effective Spring 2014

LTN 290  Independent Study
Fall of every year. Spring of every year. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. R: Approval of department.
PCR  Special projects arranged by an individual student and a faculty member in areas supplementing regular course offerings.
Effective Fall 2012 Effective Spring 2014

LTN 406  Senior Seminar: Tacitus (W)
Fall of even years. 3(3-0) P: (LTN 308 or LTN 321) and completion of Tier I Writing requirement P: Completion of Tier I Writing Requirement
PCR  Advanced study of the works of Tacitus in the original Latin.
Effective Fall 2012 Effective Spring 2014

LTN 408  Senior Seminar: Virgil (W)
Spring of even years. 3(3-0) P: (LTN 308 or LTN 321) and completion of Tier I writing requirement P: Completion of Tier I Writing Requirement
PCR  Advanced study of the works of Virgil in the original Latin.
Effective Fall 2012 Effective Spring 2014

LTN 421  Senior Seminar: Horace (W)
Spring of even years. 3(3-0) P: (LTN 321 or LTN 308) and completion of Tier I writing requirement P: Completion of Tier I Writing Requirement
PCR  Advanced study of the works of Horace in the original Latin.
Effective Fall 2012 Effective Spring 2014

LTN 490  Independent Study
Fall of every year. Spring of every year. 1 to 4 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Not open to sophomores or freshmen. Approval of department.
PCR  Special projects arranged by an individual student and a faculty member in areas supplementing regular course offerings.
Effective Fall 2012 Effective Spring 2014
PART III – COURSE CHANGES

LTN 499  Senior Thesis
Fall of every year. Spring of every year. 1(1-0) P: LTN 308 or LTN 321 R: Approval of department.
C: LTN 406 concurrently or LTN 408 concurrently or LTN 421 concurrently.
PCR  Senior thesis capstone under the direction of a faculty member.
Effective Fall 2012  Effective Spring 2014

ROM 355  French, Italian and Spanish Cinema since 1930
Spring of even years. 4(2-4) R: Not open to freshmen.
PCR  Major French, Italian, and Spanish films, film movements, and thematic trends.
Effective Fall 2012  Effective Spring 2014

ROM 469  Topics in Comparative Literature
Spring of every year. 3(3-0) Interdepartmental with English. P: Completion of Tier I Writing
Requirement R: Not open to freshmen or sophomores.
PCR  Relationships among writers, themes, genres, movements, and periods in different
national literatures and between literature and other arts.
Effective Fall 2012  Effective Spring 2014

DEPARTMENT OF SMALL ANIMAL CLINICAL SCIENCES

SCS 643  Neurology Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 credits. RB: Completion of
semester 5 of the professional veterinary program. R: Open to graduate-professional students in
the College of Veterinary Medicine.
Diagnosis, medical and surgical treatment of small animal neurological disorders.
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 Summer 2014

DEPARTMENT OF SUPPLY CHAIN MANAGEMENT

SCM 474  Negotiations
Fall of every year. Spring of every year. 2(2-0) Interdepartmental with Management. P: SCM 371 or
concurrently: R: Open to juniors or seniors in the Eli Broad College of Business and The Eli Broad
Graduate School of Management and open to students in the Sales Communication Specialization
or approval of department. R: Open to juniors or seniors in the Supply Chain Management Major
or approval of department.
Strategic negotiation, negotiation preparation, buyer-supplier relationship assessment,
international negotiations, and negotiation simulation.
SA: MSC 474
Effective Fall 2013

SCM 999  Doctoral Dissertation Research
Fall of every year. Spring of every year. Summer of every year. 1 to 12 credits. A student may earn
a maximum of 99 credits in all enrollments for this course. A student may earn a maximum of 36
credits in all enrollments for this course. R: Open to doctoral students in the Department of Supply
Chain Management or approval of department.
Doctoral dissertation research.
Request the use of the Pass-No Grade (P-N) system.
SA: MSC 999
Effective Fall 2011  Effective Fall 2014
## DEPARTMENT OF TEACHER EDUCATION

**TE 150  Reflections on Learning**  
Fall of every year. Spring of every year. Summer of every year. 3(3-0) Interdepartmental with Counseling, Educational Psychology and Special Education.  
PCR Students’ experiences as learners in comparison to psychological, sociological, and anthropological theories and assumptions about learning and teaching in and out of school.  
**Effective Fall 1992 Effective Spring 2014**  

**TE 201  Current Issues in Education**  
Fall of every year. Spring of every year. 3(3-0) Interdepartmental with Counseling, Educational Psychology and Special Education and Educational Administration.  
PCR Contemporary and perennial issues in elementary, secondary, and higher education.  
**Effective Fall 2009 Effective Fall 2014**  

**TE 250  Human Diversity, Power, and Opportunity in Social Institutions**  
Fall of every year. Spring of every year. Summer of every year. 3(3-0)  
PCR Comparative study of schools and other social institutions. Social construction and maintenance of diversity and inequality. Political, social and economic consequences for individuals and groups.  
**Effective Fall 1992 Effective Fall 2014**  

**TE 291A  Special Topics in Urban Education**  
Fall of every year. Spring of every year. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: Freshman and sophomore students recruited into teaching in the College of Educations Urban Educators Cohort Initiative.  
PCR Issues in teaching and learning for prospective teachers. Strategies for professional development during and after ones teacher preparation program.  
**Effective Fall 2007 Effective Fall 2014**  

**TE 301  Literacy, Learners, and Learning in Context – Elementary (W)**  
Fall of every year. Spring of every year. Summer of every year. 3(2-4) P: TE 150 and Completion of Tier I Writing Requirement and (TE 250 or CEP 240 or HDFS 212) R: Not open to freshmen or sophomores and open to students in the elementary teacher certification program (Admitted).  
PCR Language and literacy development in sociocultural context at the elementary level (K-8). Natural and socially constructed differences among learners. How to learn about a child. Ten components of literacy. Assessment. Reading or writing related disability.  
**Effective Fall 2013 Effective Fall 2014**  

**TE 302  Learners and Learning in Contexts – Secondary (W)**  
Fall of every year. Spring of every year. Summer of every year. 4(3-4) P: TE 150 and ((TE 250 or CEP 240) and completion of Tier I writing requirement) P: TE 150 and (TE 250 and completion of Tier I writing requirement) R: Not open to freshmen or sophomores. Open only to students admitted to the secondary teacher certification program. R: Not open to freshmen or sophomores and open to students in the Secondary Teacher Certification Program (Admitted).  
PCR Role of social context and sociocultural background in learning at the secondary level (7-12). Natural and socially constructed differences among learners. Relationship among subject-specific knowledge, teaching and learning that subject, and the institutional and communal context. Multiple literacies.  
**Effective Fall 2005 Effective Fall 2014**  

**TE 348  Reading and Responding to Children's Literature**  
Fall of every year. Spring of every year. 3(3-0)  
PCR Literary understanding and genres in reading and teaching children's literature. Critical and theoretical perspectives in evaluating children's literature. Children's responses to literature. Literary, social, and pedagogical issues in the study of children's literature.  
**Effective Fall 2000 Effective Fall 2014**  

**TE 351  Urban Education**  
Spring of even years. 3(3-0)  
PCR Teaching and learning in urban institutions. Urban context and impact on schools. Urban school reform initiatives.  
**Effective Fall 2009 Effective Fall 2014**
PART III – COURSE CHANGES

TE 352  Immigrant Language and Culture
Spring of odd years. 3(3-0)
Effective Fall 2009 Effective Fall 2014

TE 353  International Education
Spring of even years. 3(3-0)
PCR  Education in the global economy. Access and achievement, gender differences, pedagogy and culture, role of home and community, school resources, teacher quality and policy, policy challenges in developing countries, role of international organizations, privatization of higher education.
Effective Fall 2009 Effective Fall 2014

TE 403  Teaching of Science to Diverse Learners - Elementary
Fall of every year. 3(3-2) P: ((ISE 301 or ISE 320 or ISE 420) and completion of Tier I writing requirement) and TE 301 R: Not open to freshmen or sophomores and open to students in the elementary teacher certification program (admitted).
PCR  Teaching science to diverse learners at the elementary level (K-8). Inquiry into and construction of subject-specific meaning. Science subject matter adapted to learner diversity. Teachers’ roles, including professional, intellectual, and sociopolitical responsibilities.
Effective Fall 2013 Effective Fall 2014

TE 404  Teaching of Social Studies to Diverse Learners - Elementary
Fall of every year. 3(3-2) P: (TE 301) and completion of Tier I writing requirement R: Not open to freshmen or sophomores and open to students in the elementary teacher certification program (admitted).
PCR  Teaching social studies to diverse learners at the elementary level (K-8). Inquiry into and construction of subject-specific meaning. Social studies subject matter adapted to learner diversity. Teachers’ roles, including professional, intellectual, and sociopolitical responsibilities.
Effective Fall 2013 Effective Fall 2014

TE 405  Teaching of Language and Literacy to Diverse Learners - Elementary
Spring of every year. 3(3-2) P: (TE 403 and TE 404 and TE 348) and completion of Tier I writing requirement R: Not open to freshmen or sophomores and open to students in the elementary teacher certification program (admitted).
PCR  Teaching language and literacy to diverse learners at the elementary level (K-8). Inquiry into and construction of subject-specific meaning. Literacy subject matter adapted to learner diversity. Teachers’ roles, including professional, intellectual, and sociopolitical responsibilities.
Effective Fall 2013 Effective Fall 2014

TE 406  Teaching of Mathematics to Diverse Learners - Elementary
Spring of every year. 3(3-2) P: (MTH 201 and MTH 202 and TE 403 and TE 404) and completion of Tier I writing requirement R: Not open to freshmen or sophomores and open to students in the elementary teacher certification program (admitted).
PCR  Teaching mathematics to diverse learners at the elementary level (K-8). Inquiry into and construction of subject-specific meaning. Mathematics subject matter adapted to learner diversity. Teachers’ roles, including professional, intellectual, and sociopolitical responsibilities.
Effective Fall 2013 Effective Fall 2014

TE 407  Teaching Subject Matter to Diverse Learners – Secondary (W)
Fall of every year. 5(3-8) P: (TE 301 or TE 302) or completion of Tier I writing requirement R: Not open to freshmen or sophomores. Open only to students admitted to the secondary teacher certification program. R: Not open to freshmen or sophomores and open to students in the Secondary Teacher Certification Program (Admitted).
PCR  Examining teaching as enabling diverse learners to inquire into and construct subject-specific meanings at the secondary level (7-12). Adapting subject matter to learner diversity. Exploring multiple ways diverse learners make sense of the curriculum.
Effective Fall 2009 Effective Fall 2014
TE 408  Crafting Teaching Practices – Secondary (W)
Spring of every year. 6(4-6) 5(4-6) P: (TE 407) and completion of Tier I writing requirement R: Not open to freshmen or sophomores. Open only to students admitted to the secondary teacher certification program. R: Not open to freshmen or sophomores and open to students in the Secondary Teacher Certification Program (Admitted).
PCR Gathering data on learners to inform content and instructional decisions. Deciding what should be taught for specific disciplines at the secondary level (7-12). Teachers’ multiple roles and their professional, intellectual, sociopolitical, and communal responsibilities. Gathering data on learners to inform content and instructional decisions. Learning what should be taught and how it should be taught for specific disciplines at the secondary level (6-12). Teachers’ multiple roles and their professional, intellectual, sociopolitical, and communal responsibilities. Effective Fall 2005 Effective Summer 2015

TE 448  Issues of Diversity in Children's and Adolescent Literature
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: TE 348
PCR Theoretical perspectives, controversies, and classroom implications for literature by and about people who have traditionally been underrepresented in children’s and adolescent literature. Literature by and about African Americans, Asian Americans, Latinos and Latinas, American Indians, Middle Eastern Americans, and groups traditionally defined by class, religion, ability, gender, and sexuality. Effective Summer 2007 Effective Fall 2014

TE 458  Reading, Writing, and Teaching Poetry
Fall of every year. 3(3-0) R: Open to undergraduate students in the College of Education.
PCR Reading poetry, writing from prompts, peer workshops, pedagogical strategies. Effective Fall 2009 Effective Fall 2014

TE 490  Independent Study in Teacher Education
Fall of every year. Spring of every year. Summer of every year. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Not open to freshmen or sophomores. Open only to students admitted to the teacher certification program. Approval of department. R: Not open to freshmen or sophomores. Approval of department.
PCR Supervised individual or small group study of the practice of teaching. Request the use of the Pass-No Grade (P-N) system. Effective Summer 1999 Effective Fall 2014

TE 491  Special Topics in Teacher Education
Fall of every year. Spring of every year. Summer of every year. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Not open to freshmen or sophomores. Open only to teacher certification candidates. R: Not open to freshmen or sophomores.
PCR Aspects of teaching practice and inquiry into practice. Effective Fall 1999 Effective Fall 2014

TE 494  Field Experience in Teacher Education
Fall of every year. Spring of every year. 1 to 10 credits. A student may earn a maximum of 10 credits in all enrollments for this course. R: Approval of department.
PCR Supervised practica and/or observations in educational settings. 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 1999 Effective Fall 2014

TE 496  Becoming a School Music Teacher
Fall of every year. Spring of every year. 3(2-3) R: Open to seniors in the Music Education Major. Not open to students with credit in TE 801 or TE 803. C: MUS 495 concurrently.
PCR Teachers’ professional and ethical responsibilities. Relations of teachers to colleagues, families, social service providers and community leaders. Teacher’s role in school governance and accountability. Effective Fall 2013 Effective Fall 2014