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:
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:
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
REPORT OF THE UCC TO THE FACULTY SENATE - 3

PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

MICHIGAN STATE UNIVERSITY

January 15, 2019

TO:   Faculty Senate
FROM:  University Committee on Curriculum
SUBJECT:  New Academic Programs and Program Changes:
           New Courses and Course Changes

PART I - NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

1. Establish a Minor in **Sustainable Bioproducts Science and Technology** in the Department of Forestry. The University Committee on Undergraduate Education (UCUE) recommended approval of this request at its September 6, 2018 meeting.

   a. **Background Information:**

      Forests provide a unique source of sustainable materials with great potential to be used as clean and renewable alternative to petrochemicals for many applications. Michigan forests support a vibrant products industry employing more than 87,000 professionals. These industries contribute $17.8 billion in output sales, and $6.7 billion in value-added products making it one of the most important economic sectors. MSU and the Department of Forestry have traditionally supported forest products industries through targeted outreach, research and educational programs. Forest bioproducts industries have expressed strong interest in prospective employees well prepared to support and embrace modern trends in wood and engineered composite manufacturing, construction and green bioproducts. There is also a clear need for a core program at MSU that strongly focuses on educational and research needs of the Michigan’s forest products sector. There is no other such program in Michigan and MSU will be providing educational and outreach leadership, which are core of the land grant mission. It is estimated that full placement can be achieved for up to 50 graduates with wood science and technology expertise per year to satisfy the needs of Michigan forest products industries. The minor will be offered as supplement to the Forestry major, but students in Construction Management Program (CMP), Chemical Engineering (CHE), Biosystems Engineering (BE) and Material Sciences Engineering (MSE) interested in working with wood as an engineering material will benefit from the knowledge in this minor.

      Michigan State has the only department of forestry in the Lower Peninsula. The department has maintained close ties with forest products industries, and continues to contribute to the sector through applied research projects, regular outreach services, and training of the workforce with internships and direct employment of graduates.

   b. **Academic Programs Catalog Text:**

      The Minor in Sustainable Bioproducts Science and Technology, which is administered by the Department of Forestry, is designed to prepare students to pursue a career, or graduate degrees in renewable wood-based bioproducts. Upon graduation, students will be academically and professionally well positioned in acquiring employment in companies or government departments whose focus is green building construction and furnishings, bioproducts engineering, structural design, and other green bioproducts employment opportunities. Students will be prepared for graduate studies in biomaterials and bioproducts.

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

Requirements for the Minor in Sustainable Bioproducts Science and Technology

Complete 19 to 21 credits from the following:

1. Both of the following courses (6 credits):
   - FOR 414 Renewable Wood Products 3
   - FOR 479 Wood and Engineered Composites Science and Technologies 3

2. One of the following courses (3 credits):
   - CHE 468 Biomass Conversion Engineering 3
   - FOR 212 Introduction to Sustainable Bioproducts 3
   Biosystems Engineering and Chemical Engineering students must take CHE 468 and BE 469.

3. One of the following courses (3 credits):
   - BE 332 Engineering Properties of Biological Materials 3
   - CMP 222 Statics and Strengths of Materials 3
   - FOR 427 Biomass and Bioproducts Chemistry 3
   - MSE 320 Mechanical Properties of Materials 3

4. One of the following courses (3 credits):
   - CMP 322 Structural Systems 3
   - CMP 491 Special Topics in Construction Management 3
   - MSE 426 Introduction to Composite Materials 3
   - MSE 465 Design and Application of Engineering Materials 3
   Students choosing CMP 491 must enroll in the section on Green and Energy Efficient Residential Constructions.

5. One of the following courses (3 credits):
   - BE 469 Sustainable Bioenergy Systems 3
   - FOR 335 Socioeconomics of Sustainable Bioproducts 3
   Biosystems Engineering and Chemical Engineering students must take CHE 468 and BE 469.

6. One of the following professional internships (1 to 3 credits):
   - CMP 493 Professional Internship in Construction Management 3
   - EGR 393 Engineering Cooperative Education 1
   - FOR 493 Professional Internship in Forestry 1 to 3
   The internship requirement can also be met by completing the internship course in the student’s major department, but must be geared towards biomaterials and bioproducts and the course content and overall plan must be approved by the advisor for the minor in the Department of Forestry. The internship requirement can be met at any time during the student’s academic program.

Effective Summer 2019.

2. Change the requirements of the Bachelor of Science degree in Packaging in the School of Packaging.

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

      (1) In item 3. d. delete the following course:
          - SCM 303 Introduction to Supply Chain Management 3

      Add the following course:
          - SCM 304 Survey of Supply Chain Management 3
PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

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

(a) Under the heading **Packaging Science** change the credits of PKG 455 from ‘3’ to ‘4’.

(b) Under the heading **Packaging Value Chain Management** in item 3. delete the following course:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCM 303</td>
<td>Introduction to Supply Chain Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Add the following course:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCM 304</td>
<td>Survey of Supply Chain Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Effective Summer 2019.

**COLLEGE OF ARTS AND LETTERS**

1. Establish a **Minor in Art Photography** in the Department of Art, Art History, and Design. The University Committee on Undergraduate Education (UCUE) approved this request at their April 12, 2018 meeting.

a. **Background Information:**

The Minor in Art Photography will offer students an opportunity to gain foundational knowledge of the concepts, vocabulary, and methods of the discipline of Photography without requiring the intensive, immersive upper level studies associated with concentrating in the field as a major.

Many programs at Michigan State University focus, at some level, on visual studies and/or communication. These programs will be complemented by the Minor in Art Photography. The advent of digital photography has made the application of principles of photographic literacy an important element of communication across an even broader range of professional fields. From agriculture and the arts through the social and applied sciences, practitioners utilize photography as a primary method for sharing ideas, documenting facts, and conveying concepts. Knowledge of the principles of camera controls, framing and composition, image adjustments, and other aspects of image creation, along with a firm grounding in the historical and contemporary applications of the medium that are the subject of the Minor in Art Photography, benefitting students majoring in many degree programs. Those programs include, but are not limited to: professional writing; film studies; apparel and textile design; art education; interior design; theatre design; history of art and visual culture; advertising; public relations; marketing; landscape architecture; anthropology; global and international studies; Chicano/Latino studies; and human resources and industrial relations.

Photography has become an integral form of communication in contemporary life, and control of its techniques and an understanding of the contexts and information such images convey is an essential element of the activities of professionals across a broad range of fields. Knowledge of the medium's formal and technical aspects will permit students to exercise greater control in achieving success in creation of expressive images and effective communications. Students will develop both technical and conceptual skills in the medium, understand the meanings and contexts conveyed through photographic documentation and expression, and gain an appreciation for the responsibilities that photographers have for the effects of their images across the range of creative and descriptive contexts.

Digital Photography is the most widely used form of visual communication of facts, concepts, creative and social issues, and flights of imagination in contemporary life. Photographs are created in the digital form through generation of still images by practitioners using lens-based media such as Smartphone or DSLR cameras, with
subsequent adjustments of those pictures through digital imaging software such as Photoshop. The discipline simultaneously calls upon timeless and emerging design principles to present informative, representative, and persuasive messages in the context of the fine arts through the social and applied sciences and humanities.

The Minor in Art Photography will utilize existing curriculum and faculty expertise situated in its Studio Art and History of Art programs.

b. **Academic Programs Catalog Text:**

The Minor in Art Photography, which is administered by the Department of Art, Art History, and Design, provides introductory exposure to concepts, vocabulary, and methods of the discipline of photography that may be used to complement majors in other degree programs.

The minor is available as an elective to students enrolled in bachelor’s degree programs at Michigan State University other than the Bachelor of Arts or Bachelor of Fine Arts degrees in Studio Art with a concentration in photography. With the approval of the department and college that administer the student’s degree program, the courses that are used to satisfy the minor may also be used to satisfy the requirements for the bachelor’s degree.

Students who plan to apply to the program should consult the undergraduate advisor in the Department of Art, Art History, and Design.

**Requirements for the Minor in Art Photography**

Complete 15 credits from the following:

<table>
<thead>
<tr>
<th>C R E D I T S</th>
<th>S T A  1 1 0  D r a w i n g  I</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>STA 113 Color and Design</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>STA 170 Digital Photography: Tools and Concepts</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>STA 270 Concepts of Photography</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>HA 251 History of Photography</td>
<td>3</td>
</tr>
</tbody>
</table>

Effective Summer 2019.

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**COLLEGE OF EDUCATION**

1. Change the requirements for the Doctor of Philosophy degree in School Psychology in the Department of Counseling, Educational Psychology and Special Education. The University Committee on Graduate Studies (UCGS) approved this request at its November 5, 2018 meeting.

a. Under the heading **Requirements for the Doctor of Philosophy Degree in School Psychology** make the following change:

(1) Replace item 6. with the following:

**Internship.** Complete a field-based internship related to school psychology that must extend over a full calendar year and consist of at least 2,000 supervised clock hours of practice.

(2) Renumber item 7. to item 8.

(3) Add the following item 7.:

Complete at least 3 credits of CEP 994K Internship in PhD School Psychology, for supervision purposes, during the time of the internship.

Effective Summer 2019.
COLLEGE OF HUMAN MEDICINE

1. Change the requirements for the Master of Public Health degree in Public Health in the College of Human Medicine. The University Committee on Graduate Studies (UCGS) approved this request at its November 5, 2018 meeting.

a. Under the heading Requirements for the Master of Public Health Degree in Public Health make the following changes:

   (1) In item 1. change the total credits from ‘22’ to ‘25’ and add the following course:
       HM 828 Community Engagement in Public Health Practice 3
   (2) In item 4., change the credits from ‘12’ to ‘9’.

Effective Summer 2019.

LYMAN BRIGGS COLLEGE

1. Change the Graduation Requirements for Lyman Briggs College leading to the Bachelor of Science Degree in Lyman Briggs College. The University Committee on Undergraduate Education (UCUE) approved this request at its November 15, 2018 meeting.

a. Under the heading Requirements for Bachelor of Science Degree in Lyman Briggs College make the following changes:

   (1) In item 3. a. change the total credits from ‘46 to 55’ to ‘48 to 57’.
   (2) Replace item 3. a. (4) with the following:

       Physics: One of the following groups of courses (8 to 10 credits):
       (a) Lyman Briggs 273, 274.
       (b) Physics 231, 232, 251, 252.
       (c) Physics 183, 184, 191, 192.
       (d) Physics 183B, 184B, 191, 192.
       (e) Physics 191, 192, 193H, 294H.

Effective Fall 2019.

COLLEGE OF MUSIC

1. Establish a Graduate Certificate in Music Theory in the College of Music. The University Committee on Graduate Studies (UCGS) recommended approval of this request at its September 10, 2018 meeting.

The Graduate Certificate in Music Theory is a Type 2 graduate certificate and will appear on the transcript as “Graduate Certificate Program in Music Theory”.

a. Background Information:

   The College of Music already offers a Master of Music degree in Music Theory, which successfully serves two types of students. Those for whom music theory is a primary area of specialization are research-focused, and go on to Ph.D. programs in music theory at other institutions, since MSU does not offer a Ph.D. in music theory. Those for whom music theory is a secondary area of specialization, alongside a Doctor of Musical Arts or Master of Music degree in either performance, conducting, or composition, take mainly a
pedagogical approach to their music theory study. Students in this second group earn a 30 to 32 credit degree in music theory as a stepping stone toward collegiate teaching, focusing mainly on job postings that ask candidates to demonstrate music theory teaching ability in addition to their primary area of expertise.

To add the Master of Music degree in Music Theory to an existing graduate degree generally adds two to three semesters to students’ programs of study—a rich and deep experience to be sure, but more of a commitment than some students want to make. The intent with the Graduate Certificate in Music Theory is to provide a less intensive opportunity to Doctor of Musical Arts and Master of Music students, where they could complete a graduate certificate within the same time-frame as their original degree. It is a less intensive version of the same experience as the Master’s degree in Music Theory. Consisting of just 15 credits, approximately half of what is required for the Master’s in Music Theory, it will allow a larger number of students to gain subject expertise in music theory, at less depth. Two positive effects are anticipated: (1) recipients of the certificate will be more highly marketable in a collegiate job market that is increasingly skewed toward multi-specialty positions (such as music composition and music theory, or low brass and music theory); and (2) given the prevalence nationwide of music theory courses taught by faculty members who do not hold terminal degrees in music theory, the certificate will contribute to the quality of theory pedagogy nationwide by equipping non-degree recipients with substantially more experience than one without a certificate.

MSU is one of just three institutions in the country that offer a Master’s degree designed particularly to serve the pedagogical focus of dual-degree students who approach theory as a secondary area of teaching expertise. College of Music faculty members are active in the sub-discipline of music theory and existing course offerings are uniquely suited to a graduate certificate program that serves the goals of students whose main musical focus is outside music theory.

Faculty will evaluate the program on an annual basis, with particular attention to placement of certificate recipients in college/university positions teaching at least one music theory course. Other important data points will be number of research presentations and journal articles generated by students. At the end of year 3, 5, and 7, input from certificate recipients will be solicited to determine how adequately those recipients feel the program prepared them for what they are currently doing. The program will be evaluated by National Association of Schools of Music during its next accreditation visit in 2025.

b. Academic Programs Catalog Text:

The Graduate Certificate in Music Theory, which is administered by the College of Music, is designed to help prepare graduate students in the College of Music for careers in post-secondary education that may require the ability to teach undergraduate courses in music theory.

The certificate is available to students who are enrolled in a master’s or doctoral degree program in the College of Music at Michigan State University.

The student’s program of study must be approved by the Associate Dean for Graduate Studies in the College of Music.

Admission

To be considered for the Graduate Certificate in Music Theory, a student must be enrolled in a master’s or doctoral degree program in the College of Music.

Students must:

1. complete an application consisting of a personal statement, transcripts, and three letters of recommendation, a scholarly writing sample. Students may provide a portfolio of work if desired.
2. demonstrate proficiency in music theory.

Following initial screening, candidates will be invited to interview with the music theory faculty to determine admissibility.
Requirements for the Graduate Certificate in Music Theory

Students must complete 15 credits from the following:

1. The following course (3 credits):
   MUS 970 Pedagogy of Music Theory I 3

2. One of the following courses (3 credits):
   MUS 871 Advanced Tonal Counterpoint 3
   MUS 876 Keyboard Skills and Practical Musicianship 3

   Students may use one of these courses to fulfill 3 credits of the requirement in item 4. below, but not both.

3. One of the following courses (2 credits):
   MUS 873 Early 20th-Century Techniques 2
   MUS 978 Late 20th- and 21st-Century Techniques 2

   Students may use one of these courses to fulfill 2 credits of the requirement in item 4. below, but not both.

4. Complete 7 credits from the following courses in consultation with the area chairperson of music theory or his or her designee:
   MUS 868 Topics in Music Analysis 3
   MUS 869 Tonal Counterpoint 2
   MUS 870 Advanced Modal Counterpoint 3
   MUS 872 Tonal Forms 2
   MUS 874 Schenkerian Analysis 2
   MUS 875 Analysis of Musical Scores 3
   MUS 879 Tonal Literature and Analysis 3
   MUS 971 Pedagogy of Theory II 3
   MUS 972 Advanced Keyboard Skills 3
   MUS 973 Readings in Music Theory 2
   MUS 976 Performance and Analysis 3
   MUS 977 Schenkerian Analysis II 3

5. Active participation in music theory area events, including colloquia and guest lectures.

   A capstone essay approximately 15 to 20 pages in length. Students who take MUS 971 or MUS 973 to fulfill requirement 4. above may use the essay from the research project undertaken in either of those courses. Alternatively, the essay could reflect synoptically on what the student learned in music theory courses, drawing connections among those courses, between them and other study, performance, and/or scholarly work undertaken as part of the student’s primary degree program. The essay topic must be approved by a member of the music theory faculty who will advise the project and certify its completion.

   Effective Summer 2019.
COLLEGE OF NATURAL SCIENCE

1. Delete the curriculum and degree requirements for the Bachelor of Science degree in Earth Science-Interdepartmental in the College of Natural Science. The University Committee on Undergraduate Education (UCUE) provided consultative commentary to the Provost after considering this request. The Provost made the determination to discontinuation 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 2017. No students are to be readmitted to the program effective Spring 2017. Effective Spring 2021, coding for the program will be discontinued and the program will no longer be available in the College of Natural Science. Students who have not met the requirements for the Bachelor of Science degree in Earth Science-Interdepartmental through the College of Natural Science prior to Spring 2021 will have to change their major.

2. Change the requirements for the Graduate Certificate in Medical Neuroscience in the Program in Neuroscience. The University Committee on Graduate Studies (UCGS) approved this request at its November 5, 2018 meeting.
   a. Under the heading Requirements for the Graduate Certificate in Medical Neuroscience in item 2., change the credits of NEU 842 from ‘2’ to ‘3’.

Effective Summer 2019.

3. Change the requirements for the Graduate Certificate in Neuroscience and the Law in the Program in Neuroscience. The University Committee on Graduate Studies (UCGS) approved this request at its November 5, 2018 meeting.
   a. Under the heading Requirements for the Graduate Certificate in Neuroscience and the Law change the credits of NEU 842 and NEU 843 from ‘2’ to ‘3’.

Effective Summer 2019.

4. Change the name of the Doctor of Philosophy degree in Environmental Geosciences to Earth and Environmental Sciences in Department of Earth and Environmental Sciences. The University Committee on Graduate Studies (UCGS) approved this request at its November 5, 2018 meeting.

Students admitted to the major prior to Summer 2019 will be awarded a Doctor of Philosophy Degree in Environmental Geosciences.

Students admitted to the major Summer 2019 and forward will be awarded a Doctor of Philosophy Degree in Earth and Environmental Sciences.

Effective Summer 2019.

5. Change the Admission requirements for the Doctor of Philosophy Degree in Earth and Environmental Sciences in the Department of Earth and Environmental Sciences. The University Committee on Graduate Studies (UCGS) approved this request at its November 5, 2018 meeting.
   a. Under the heading Admission replace the entire entry with the following:

   Students holding bachelor's or master's degrees may be admitted to the doctoral program in earth and environmental sciences on the basis of their performance during the previous two years of academic work. Satisfactory scores on the GRE General Test are required.

Effective Summer 2019.
6. Change the requirements for the **Doctor of Philosophy Degree in Earth and Environmental Sciences** in the Department of Earth and Environmental Sciences. The University Committee on Graduate Studies (UCGS) approved this request at its November 5, 2018 meeting.

   a. Under the heading **Requirements for the Doctor of Philosophy Degree in Earth and Environmental Sciences** replace the entire entry with the following:

   The program of study is determined by mutual agreement between the student and the guidance committee. The student must complete, or have completed prior to admission, 9 credits of course work in earth and environmental sciences and at least 3 credits in 800-level course work. Students must also complete 24 credits of doctoral dissertation research by enrollment in GLG 999.

   The required comprehensive examination involves both an oral and a written portion and covers the area of the student's research specialty, those areas that interface with that specialty, and the significance of the proposed research program. Students who are admitted to the doctoral program with master's degrees must pass the comprehensive examination during the second year of enrollment in the program. Students who are admitted to the doctoral program with bachelor's degrees must pass the comprehensive examination during the third year of enrollment in the program.

   Effective Summer 2019.

**COLLEGE OF NURSING**

1. Change the requirements for the **Bachelor of Science in Nursing** degree in **Nursing** in the College of Nursing.

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

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

   The completion of Mathematics 103 or Mathematics 103A and 103B; 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.

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

   The University's Tier II writing requirement for the Nursing major is met by completing Nursing 342 and 460. Those courses are referenced in item 2. below.

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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 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 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>

   Add the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>NUR 323</td>
<td>Nursing Care of Acute and Chronically Ill Patients I</td>
<td>5</td>
</tr>
<tr>
<td>NUR 333</td>
<td>Health Promotion</td>
<td>4</td>
</tr>
<tr>
<td>NUR 337</td>
<td>Nursing Care of Acute and Chronically Ill Patients II</td>
<td>6</td>
</tr>
</tbody>
</table>
Effective Fall 2019.

**COLLEGE OF SOCIAL SCIENCE**

1. Establish a **Minor in Social Science Quantitative Data Analytics** in the College of Social Science. The University Committee on Undergraduate Education (UCUE) recommended approval of this request at its September 6, 2018 meeting.

   a. **Background Information:**

   Data Scientist is currently the hottest job position in the United States, and data analytics is the hottest sector. Given the large and growing importance of the information economy, there is high confidence that training in data analytics will be among the most important skills MSU students can attain for years to come. This minor is founded on the core vision that undergraduate students in Social Science can be well positioned to participate in this rapidly growing sector, in or out of academia. It is aimed at providing undergraduate students with the ability to understand and use computational tools to solve social science problems. The courses in the minor empower the students to understand how core social science skills, such as critical thinking and theoretically oriented analysis, are very useful in the systematic collection, integration, analysis, and presentation of potentially large-scale and dense information.

   The minor consists of four stages: an entry course, a quantitative methods course, two tools courses, and a capstone course, detailed below. In this way, every student obtains a consistent learning experience through entry and exit while having the flexibility to tailor quantitative and tools skills to their particular interests. The interdisciplinary entry course, PLS 202, introduces computational tools to analyze various types of social science data, and provides examples of how these complex data structures are studied by social scientists to understand, explain, and predict a variety of important problems, with examples ranging from armed conflict to trade.

   The quantitative methods course is chosen by the student, in consultation with their undergraduate advisor, from a list of courses that ground the students in fundamental data handling, modeling, and statistical inference concepts and skills. Courses from departments across the College of Social Science and in the Department of Statistics and Probability are in this list, enabling disciplinary content to customize each student’s program experience. The tools courses enable students to choose which technical skills they want to more fully develop and include options in the College of Social Science on econometrics and spatial data processing as well as courses in Computational Mathematics, Science, and Engineering and Computer Science on computational modeling and programming.

   While the early courses introduce students to data analytics tools and methodologies, the capstone course explores the intersection of machine learning and social science and aims to answer two primary questions about these new techniques: (i) How do they work and what kinds of statistical guarantees can be made about their performance? (ii) How can they be used to answer questions that interest social science researchers, such as testing theories or improving social policy? It is designed to teach students to think about data analytics broadly and how novel approaches can answer fundamental questions across various social science disciplines. Accordingly, the first half of the course emphasizes the theory-underlying machine learning while the second half emphasizes techniques and applications in social science.

   The College of Social Science established a Social Science Data Analytics (SSDA) program several years ago, with both research and teaching aims, in an effort to establish
MSU as a leader in this emerging area of social science research. This minor is the principal undergraduate curriculum initiative of the SSDA program. The College has a significant number of faculty members across many departments working in this research area; and has already hired a number of faculty members to build capacity and establish academic leadership in this area.

The minor will serve an important role in the College of Social Science curriculum, which now requires an interdisciplinary minor—especially as a minor attractive to B.S. students in Economics and others in the College with quantitative social science interests. It will also provide critical tools for students to apply skills developed in CMSE, CSE, and STT courses to problems in the social sciences.

b. **Academic Programs Catalog Text:**

The Minor in Social Science Quantitative Data Analytics, administered by the College of Social Science, enhances the education and empowers students interested in understanding how core social science skills such as critical thinking and theoretically oriented analysis are useful in the systematic collection, integration, analysis, and presentation of large-scale and dense information.

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

**Requirements for the Minor in Social Science Quantitative Data Analytics**

Students must complete a minimum of 15 credits from the following:

1. The following course (3 credits):
   
   PLS 202 Introduction to Data Analytics and the Social Sciences 3

2. One of the following quantitative methods courses (3 or 4 credits):
   
   EC 420 Introduction to Econometric Methods 3
   GEO 363 Introduction to Quantitative Methods for Geographers 3
   PSY 395 Research Design and Measurement in Psychological Research 3

3. Two of the following courses (6 to 8 credits):
   
   CMSE 201 Introduction to Computational Modeling 4
   CMSE 202 Computational Modeling Tools and Techniques 4
   CSE 231 Introduction to Programming I 4
   CSE 232 Introduction to Programming II 4
   EC 421 Advanced Econometric Methods 3
   GEO 325 Geographic Information Systems 3
   GEO 429 Geoprocessing 3
   PLS 397 Analyzing and Visualizing Data in Politics 3

4. The following capstone course (3 credits):
   
   SSC 442 Social Science Data Analytic Applications 3

Effective Fall 2019.
2. Change the requirements for the Bachelor of Arts degree in Human Capital and Society in the School of Human Resources and Labor Relations.

a. Under the heading Requirements for the Bachelor of Arts Degree in Human Capital and Society make the following changes:

1. In item 3. d. under General add the following course:
   
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSC 490</td>
<td>Special Topics in Social Science</td>
<td>3</td>
</tr>
</tbody>
</table>

2. Change item 3. e. to ‘Complete at least 2 courses (6 credits) from the following courses:’.

3. In item 3. e. under Anthropology add the following courses:
   
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANP 220</td>
<td>Gender Relations in Comparative Perspective</td>
<td>3</td>
</tr>
<tr>
<td>ANP 330</td>
<td>Race, Ethnicity, and Nation: Anthropological Approaches to Collective Identity</td>
<td>3</td>
</tr>
</tbody>
</table>

4. In item 3. e. under Geography add the following course:
   
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 151</td>
<td>Introduction to Human Geography</td>
<td>3</td>
</tr>
</tbody>
</table>

5. In item 3. e. under History add the following courses:
   
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HST 225</td>
<td>Law, History and Society in the United States</td>
<td>3</td>
</tr>
<tr>
<td>HST 305</td>
<td>The Making of the Modern United States</td>
<td>3</td>
</tr>
<tr>
<td>HST 313</td>
<td>Women in the United States to 1869</td>
<td>3</td>
</tr>
<tr>
<td>HST 314</td>
<td>Women in the United States since 1869</td>
<td>3</td>
</tr>
</tbody>
</table>

6. In item 3. e. add Human Development and Family Studies and the following course:
   
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDFS 442</td>
<td>Ethnic Families in America</td>
<td>3</td>
</tr>
</tbody>
</table>

7. In item 3. e. under Sociology delete the following course:
   
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 322</td>
<td>Sociology of Work</td>
<td>3</td>
</tr>
</tbody>
</table>

Add the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 161</td>
<td>International Development and Change</td>
<td>3</td>
</tr>
<tr>
<td>SOC 214</td>
<td>Social Inequality</td>
<td>3</td>
</tr>
<tr>
<td>SOC 241</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 481</td>
<td>Social Movements and Collective Identities</td>
<td>3</td>
</tr>
</tbody>
</table>

Effective Summer 2019.
COLLEGE OF VETERINARY MEDICINE

1. Change the requirements for the **Bachelor of Science** degree in **Veterinary Technology** in the College of Veterinary Medicine. The University Committee on Undergraduate Education (UCUE) approved this request.

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

      (1) Replace paragraph one with the following:

      The number of students who can be admitted to the Bachelor of Science degree program in veterinary technology is limited. All persons who are interested in applying for admission to the bachelor’s degree program in veterinary technology must complete an application which can be found, along with the application process instructions, by visiting www.cvm.msu.edu/lvt.

      (2) Replace paragraph two with the following:

      Applications for admission to the bachelor's degree program in veterinary technology are accepted through early February of the year that admission is sought.

      (3) Replace sentence one of paragraph four with the following:

      To be considered for admission, an applicant must have a minimum cumulative grade-point average of 2.75 and a minimum of a 2.5 grade-point average of the last 12 credits completed and a minimum of a 2.0 grade in all math and science courses.

      (4) In paragraph four, replace item 1. a. with the following:

      One of the following:

      (MTH 101 and MTH 103) or (MTH 103 and MTH 114) or MTH 116 or MTH 124 or MTH 132 or MTH 152H.

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

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

      The University's Tier II writing requirement for the Veterinary Technology major is met by completing the following courses: Veterinary Medicine 410 and 413. Those courses are referenced in items 2. a. below.

      (2) Replace item 2. b. with the following:

      One of the following options (0 to 7 credits):

      (1) MTH 116 College Algebra and Trigonometry 5
          MTH 124 Survey of Calculus I 3
          MTH 132 Calculus I 3
          MTH 152H Honors Calculus I 3
      (2) MTH 103 College Algebra 3
          and
          One of the following:
          MTH 101 Quantitative Literacy I 3
          MTH 102 Quantitative Literacy II 3
          MTH 114 Trigonometry 3
          MTH 201 Elementary Mathematics for Teachers I 3
          STT 200 Statistical Methods 3
          STT 201 Statistical Methods 4
      (3) Successfully complete the proctored mathematics placement exam with a score of 19 or higher.

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

      ANS 404 Advanced Animal Genetics 2
PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

Add the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBIO 300</td>
<td>Neurobiology</td>
<td>3</td>
</tr>
<tr>
<td>IBIO 313</td>
<td>Animal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>IBIO 341</td>
<td>Fundamentals of Genetics</td>
<td>4</td>
</tr>
<tr>
<td>IBIO 369</td>
<td>Introduction to Zoo and Aquarium Science</td>
<td>3</td>
</tr>
<tr>
<td>IBIO 408</td>
<td>Histology</td>
<td>4</td>
</tr>
<tr>
<td>IBIO 413</td>
<td>Laboratory in Behavioral Neuroscience (W)</td>
<td>4</td>
</tr>
<tr>
<td>IBIO 415</td>
<td>Ecological Aspects of Animal Behavior (W)</td>
<td>3</td>
</tr>
</tbody>
</table>

Effective Spring 2019.

2. Establish a Graduate Certificate in Food Safety in the Department of Large Animal Clinical Sciences. The University Committee on Graduate Studies (UCGS) recommended approval of this request at its October 15, 2018 meeting.

The Graduate Certificate in Food Safety is a Type 2 graduate certificate and will appear on the transcript as “Graduate Certificate Program in Food Safety”.

a. Background Information:

The Graduate Certificate in Food Safety embodies the principles of prevention of foodborne illness. The certificate would be fully online and is being developed to address the needs of the food industry, government, and public health for their employees to be specifically educated in the many aspects of safeguarding our food supply. The certificate is open to all concurrently enrolled graduate students and lifelong education students, except those in the Master of Science in Food Safety degree program. Currently, a non-transcriptable certificate is offered for lifelong or concurrently enrolled graduate students who complete 12 credits of food safety course work. Concurrently, a moratorium is being requested for the deletion of the Food Safety and Toxicology Certificate and the Food Safety Graduate Specialization, both of which will be replaced by this 12-credit certificate. The Food Safety and Toxicology Certificate was originally created as a specific program geared toward graduate students in the Master of Public Policy (MPH) program. That certificate is 18 credits and consists of four courses VM 811, VM 812, VM 821, and VM 832. VM 832 is no longer offered. An FSC (Food Law) course and a HM course also contributed to its requirements. To date there have been five MPH students who have completed the Food Safety and Toxicology Certificate and there are currently zero students pursuing the certificate. The proposed Food Safety graduate certificate would reach a broader audience. There is a larger interest in certificates and this 12-credit version could offer a better option for concurrently enrolled graduate students at MSU to specialize in food safety without pursuing an 18-credit certificate or a second graduate degree. The 12-credit certificate also would allow lifelong students to earn a transcriptable certificate in food safety without needing to pursue an advanced degree. The graduate specialization program was originally created in 2002 and has proven of little interest to students. Perhaps it is too onerous and not compatible with other graduate programs. In the last eight years the Online Food Safety program has not had interest for the graduate specialization program. Prospective students and graduate students in other programs on campus express interest in a short food safety certificate or a dual master’s degree. The proposed version of the food safety certificate would ensure that students get the bulk of the core science through enrollment in VM 811, VM 812, and VM 831.
b. **Academic Programs Catalog Text:**

The Graduate Certificate in Food Safety embodies the principles of prevention of foodborne illness. The certificate is a fully online program that addresses the needs of the food industry, government, and public health for their employees to be educated in many of the aspects of safeguarding food supply. The certificate is not open to students pursuing the Master of Science degree in Food Safety.

**Requirements for the Graduate Certificate in Food Safety**

Students must complete 12 credits from the following:

1. All of the following courses (9 credits):
   - VM 811 Evolution and Ecology of Foodborne Pathogens 3
   - VM 812 Food Safety Toxicology 3
   - VM 831 Foodborne Disease Epidemiology for the Professional 3

2. One of the following courses (3 credits):
   - FSC 810 International Food Laws and Regulations 3
   - FSC 811 U.S. Food Laws and Regulations 3
   - VM 814 Packaging for Food Safety 3
   - VM 817 Livestock Pre-Harvest Food Safety 3
   - VM 821 Food Protection and Defense 3
   - VM 824 Global Food Safety 3
   - VM 825 Quantifying Food Risk 3
   - VM 834 Current Issues in Food Safety 3
   - VM 835 Food Safety for Produce 3
   - VM 840 Anti-Counterfeit Strategy and Product Production 3

Other 800-level courses may be used to fulfill this requirement with program advisor approval.

Effective Summer 2019.
PART II - NEW COURSES

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

ECE 846 Multi-Criterion Optimization and Decision-Making
Fall of even years. 3(3-0) RB: Knowledge on at least one programming language; basic knowledge in Calculus.
Definitions for Pareto-optimality and systematic computerized algorithms for finding Pareto-optimal solutions. Classical generative and emerging methods using evolutionary optimization methods. Decision-making tasks to choose a final preferred solution.
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 2018

DEPARTMENT OF EMERGENCY MEDICINE

EM 631 Clinical Experience in Emergency Medicine
Fall of every year. Spring of every year. Summer of every year. 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: (HM 556) or (FM 608 and MED 608 and PHD 600 and PSC 608 and OGR 608 and SUR 608) R: Open to graduate-professional students in the College of Human Medicine.
Two-week elective in clinical diagnosis and treatment of the undifferentiated patient in the emergency department setting. Intended for students not planning to apply to an Emergency Medicine Residency.
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 2018

EM 632 Senior Clinical Elective in Emergency Medicine
Fall of every year. Spring of every year. Summer of every year. 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: (FM 641 and MED 641 and PHD 641 and PSC 641 and OGR 641 and SUR 641) or (FM 608 and MED 608 and PHD 600 and PSC 608 and OGR 608 and SUR 608) R: Open to graduate-professional students in the College of Human Medicine.
Four-week elective in clinical diagnosis and treatment of the undifferentiated patient in the emergency department setting. Intended for students planning to apply to an Emergency Medicine Residency.
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 2018

DEPARTMENT OF FAMILY MEDICINE

FM 644 Family Medicine SubInternship in the Late Clinical Experience Remediation
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: FM 641 R: Open to graduate-professional students in the College of Human Medicine.
Interviewing skills, history, physical exam, problem solving and therapy in community hospitals and/or ambulatory sites.
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 2018
PART II – NEW COURSES

DEPARTMENT OF FISHERIES AND WILDLIFE

FW 824  Analysis of Wildlife Populations  
Spring of even years. 3(2-3)  
Statistical and ecological concepts, methods and computer techniques needed to analyze and interpret demographic data from fish and wildlife studies.  
Effective Spring 2020

DEPARTMENT OF FORESTRY

FOR 212  Introduction to Sustainable Bioproducts  
Spring of every year. 3(3-0)  
Sustainable bioproducts derived from biomass, and their importance for sustainable societies.  
Effective Fall 2018

FOR 335  Socioeconomics of Sustainable Bioproducts  
Spring of every year. 3(3-0) RB: FOR 212 R: Not open to freshmen.  
Role of forest bioproducts in developing sustainable communities. Resource planning and availability for value added bioproducts. Bioproducts supply-chains analysis and principles of life cycle implementation.  
Effective Fall 2018

FOR 427  Biomass and Bioproducts Chemistry  
Spring of every year. 3(2-2) P: CEM 141 or CEM 151 or LB 171 RB: FOR 212 R: Not open to freshmen.  
Chemistry of wood, engineered composites and bioproducts. Chemical characterization of biopolymers from woody biomass and bioproducts. Analytical methods related to bioproducts chemistry.  
Effective Fall 2018

FOR 479  Wood and Engineered Composites Science and Technologies  
Spring of every year. 3(2-2) Interdepartmental with Construction Management Program. P: FOR 414 or concurrently  
Sciences and technologies governing industrial and manufacturing processes for lumber, engineered wood, and composite wood products.  
Effective Fall 2018

DEPARTMENT OF HISTORY

HST 281  Atlantic Slavery  
Spring of even years. 3(3-0)  
Slavery and human trafficking in western Europe, Africa and the Americas from the fifteenth century to the present.  
Effective Fall 2019

COLLEGE OF HUMAN MEDICINE

HM 828  Community Engagement in Public Health Practice  
Fall of every year. Spring of every year. Summer of every year. 3(3-0) R: Open to graduate students in the Public Health Major.  
Methods, ethics, and issues in community engaged practice and scholarship.  
Effective Fall 2018
MSU COLLEGE OF LAW

LWG 849C  Special Topics in Comparative Law
On Demand. 1 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
   Special topics in comparative law.
   Request the use of the Pass-No Grade (P-N) system.
   Effective Spring 2019

DEPARTMENT OF MEDICINE

MED 644  Internal Medicine Subinternship in the Late Clinical Experience Remediation
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: MED 641 R: Open to graduate-professional students in the College of Human Medicine.
   Interviewing skills, history, physical exam, problem solving and therapy based in community hospitals and/or ambulatory sites.
   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 2018

COLLEGE OF NURSING

NUR 323  Nursing Care of the Acute and Chronically Ill Patients I
Fall of every year. Spring of every year. Summer of every year. 5(2-9) P: (NUR 300 or NUR 301) and (MMG 201 and MMG 302) and (NUR 205 and PHM 350)
   Nursing process and clinical judgment to provide care for chronically and acutely ill adult patients at a novice level.
   Effective Fall 2019

NUR 333  Health Promotion
Fall of every year. Spring of every year. Summer of every year. 4(3-3) P: HDFS 225 and HNF 150 and NUR 205 and NUR 301 and PHM 350 and MMG 201 and MMG 302
   Principles and practices of health promotion/risk reduction through understanding and developing health capacity for populations, families, and individuals.
   Effective Fall 2019

NUR 337  Nursing Care of Acute and Chronically Ill Patients II
Fall of every year. Spring of every year. 6(3-9) P: NUR 323 and NUR 333
   Nursing process and clinical judgment to manage care for acute and chronically ill patients at an intermediate level.
   Effective Fall 2019

NUR 342  Research, Ethics, and Evidence-Based Practice I
Fall of every year. Spring of every year. 3(3-0) P: (STT 200 or STT 201) and ((NUR 323 and NUR 333) and completion of Tier I writing requirement)
   Evidence-based practice and research methodology to inform ethical nursing practice.
   Effective Fall 2019

NUR 434  Nursing Care of Acute and Chronically Ill Patients III
Fall of every year. Spring of every year. 4(2-6) P: NUR 337 and NUR 371 and NUR 342
   Nursing process and clinical judgment to manage and evaluate care for acute and critically ill patients at an advanced level.
   Effective Fall 2019

NUR 438  Nursing Care of Children and their Families
Fall of every year. Spring of every year. 3(1-6) P: NUR 337 and NUR 371 and NUR 342
   Theoretical concepts and clinical application of nursing care for ill children and adolescents using a holistic perspective in varied settings.
   Effective Fall 2019
PART II – NEW COURSES

NUR 439  Nursing Care of the Childbearing Family
Fall of every year. Spring of every year. 3(2-3) P: NUR 337 and NUR 371 and NUR 342
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 2019

NUR 442  Research, Ethics, and Evidence-Based Practice II
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: (NUR 342 and NUR 434
and NUR 438 and NUR 439) and completion of Tier I writing requirement
Application of evidence based practice and research methodology to inform ethical
nursing practice.
Effective Fall 2019

DEPARTMENT OF OBSTETRICS, GYNECOLOGY AND REPRODUCTIVE BIOLOGY

OGR 644  Obstetrics and Gynecology Clerkship in the Late Clinical Experience Remediation
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: OGR 641 R: Open to
graduate-professional students in the College of Human Medicine.
Interviewing skills, history, physical exam, problem solving and therapy based in
community hospitals and/or ambulatory sites.
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 2018

COLLEGE OF OSTEOPATHIC MEDICINE

OST 592  Self-Directed Integration of Medical Knowledge
Summer of every year. 6(2-0) R: Open to graduate-professional students in the College of
Osteopathic Medicine.
Self-directed review and integration of basic science and systems medical knowledge
content and clinical correlations using coaching and workshops.
Request the use of the Pass-No Grade (P-N) system.
Effective Summer 2019

OST 604  Essential Clinical Skills for the Senior Medical Student
Fall of every year. Spring of every year. Summer of every year. 1 to 2 credits. Interdepartmental
with Osteopathic Manipulative Medicine. A student may earn a maximum of 3 credits in all
enrollments for this course. R: Open to seniors in the College of Osteopathic Medicine.
Longitudinal experience addressing essential skills for senior osteopathic medical
students.
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 2019

DEPARTMENT OF PEDIATRICS AND HUMAN DEVELOPMENT

PHD 644  Pediatric Subinternship in the Late Clinical Experience Remediation
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: PHD 641 R: Open to
graduate-professional students in the College of Human Medicine.
Interviewing skills, history, physical exam, problem solving and therapy based in
community hospitals and/or ambulatory sites.
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 2018
PART II – NEW COURSES

SCHOOL OF PLANNING, DESIGN AND CONSTRUCTION

PDC 403  Introduction to Domicology: Sustainable Built Environment
Spring of every year. 3(3-0) P: Completion of Tier I Writing Requirement R: Open to juniors or seniors or graduate students.
   The lifecycle of structures. Causes and impacts of structural abandonment, and sustainable tools, policies, and practices to address it
Effective Spring 2019

DEPARTMENT OF POLITICAL SCIENCE

PLS 202  Introduction to Data Analytics and the Social Sciences
Fall of every year. Spring of every year. 3(3-0)
   Approaches to data analysis in the social sciences. Computational tools for data collection and visualization across various digital sources, including text or social media.
Effective Fall 2018

DEPARTMENT OF PSYCHIATRY

PSC 644  Psychiatry and Behavioral Science Clerkship in the Late Clinical Experience Remediation
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: PSC 641 R: Open to graduate-professional students in the College of Human Medicine.
   Interviewing skills, history, physical exam, problem solving and therapy based in community hospitals and/or ambulatory sites.
   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 2018

DEPARTMENT OF SOCIOLOGY

SOC 350  Society and Mental Health
Fall of every year. Spring of every year. 3(3-0) P: Completion of Tier I Writing Requirement
   Social determinants of mental health and mental illness. International and cross-cultural comparison of mental health and mental illness.
Effective Fall 2018

DEPARTMENT OF SURGERY

SUR 644  Surgery in the Late Clinical Experience Remediation
Fall of every year. Spring of every year. Summer of every year. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. P: SUR 641 or SUR 642 R: Open to graduate-professional students in the College of Human Medicine.
   Interviewing skills, history, physical exam, problem solving and therapy based in community hospitals and/or ambulatory sites.
   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 2018
PART III – COURSE CHANGES

DEPARTMENT OF ANTHROPOLOGY

ANP 859 Gender, Justice, and Environmental Change: Methods and Application
Spring of even years. Spring of every year. 3(3-0) Interdepartmental with Forestry and Fisheries and Wildlife and Geography and Resource Development and Sociology. Interdepartmental with Community Sustainability and Forestry and Fisheries and Wildlife and Geography and Sociology and Women's Studies
RB: Background in social science, environmental science, or natural resources.
Methods and case studies related to gender, ecology, and environmental studies. Methodological and fieldwork issues from a feminist perspective in international and intercultural contexts. Qualitative and quantitative methods for integrating social and environmental data.
Effective Summer 2004 Effective Summer 2019

DEPARTMENT OF ART, ART HISTORY, AND DESIGN

ATD 121 Explorations in Apparel and Textile Design
Fall of every year. Spring of every year. 3(0-6) P: (STA 110 and STA 113 and STA 114) and (STA 111 or STA 112) P: STA 110 and STA 112 and STA 113 and STA 114
Art and design fundamentals applied to apparel design. Visual communication of design ideas through apparel and textile rendering. Design process, fashion theory, fabrication and exploration of two- and three-dimensional designing.
SA: HED 121
Effective Spring 2015 Effective Fall 2018

DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY

BMB 801 Molecular Biology
Fall of every year. 3(3-0) RB: BMB 462, CEM 383. RB: BMB 462 and CEM 383 Not open to students with credit in BMB 897A or BMB 897A.
Organization of genes. Regulation of gene expression, replication, and recombination.
SA: BCH 801
Effective Fall 2004 Effective Spring 2019

DEPARTMENT OF COMMUNITY SUSTAINABILITY

CSUS 429 Program Evaluation for Community Sustainability
Fall of every year. 3(3-0) P: ((MTH 103) and (STT 200 or STT 201)) or (MTH 103 and MTH 114) or MTH 116 or MTH 124) and ((CSUS 200 or EEP 255) and completion of Tier I writing requirement) P: ((MTH 103) and (STT 200 or STT 201)) or (MTH 103 and MTH 114) or MTH 116 or MTH 124) and ((CSUS 200 or EEP 255) and completion of Tier I writing requirement)
Concepts, theories, and procedures in program evaluation. Practical methods and skills to plan and implement evaluations of community, agriculture, and natural resources programs.
SA: ACR 415
Effective Fall 2017 Effective Spring 2019

CSUS 464 Environmental and Natural Resource Policy in Michigan
Spring of every year. 3(3-0) Interdepartmental with Environmental Economics and Policy. Interdepartmental with Environmental Economics and Management P: CSUS 200 or EEP 255 or approval of department
State legislative process and its role in environmental and natural resource policy formulation. Influence of lobbying, citizen engagement and political factors.
SA: ESA 440, RD 440
Effective Fall 2014 Effective Spring 2019
CSUS 465  Environmental and Natural Resource Law  Fall of every year. 3(3-0)  Interdepartmental with Environmental Economics and Policy and Forestry. Interdepartmental with Environmental Economics and Management and Forestry P: CSUS 200 or EEP 255 P: CSUS 200 or EEM 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 Summer 2015 Effective Spring 2019

SCHOOL OF CRIMINAL JUSTICE


DEPARTMENT OF EPIDEMIOLOGY AND BIOSTATISTICS

EPI 840  Clinical Epidemiology for Healthcare Practice  Fall of every year. Spring of every year. 3 credits. R: Approval of department. Introduction to clinical epidemiology and evidence-based medicine for clinical practitioners and other healthcare professionals.  Effective Fall 2013 Effective Fall 2018

EPI 860  Advanced Inference for Biostatistics  Fall of every year. 3(3-0) Interdepartmental with Statistics and Probability. P: STT 861 and STT 862 or approval of department P: STT 861 and (STT 862 or concurrently) or approval of department RB: Masters in statistics or biostatistics R: Open to doctoral students in the Department of Epidemiology and Biostatistics or approval of department. Statistical inference problems with biomedical applications.  Effective Spring 2018 Effective Spring 2019

DEPARTMENT OF HISTORY

HST 336  Contemporary Europe, 1870 to Present  Contemporary Europe, 1870 to Present  Fall of every year. Spring of every year. 3(3-0)  Politics, society, culture, and economy from 1870 to present including the world wars, revolutions, and social and political change in twentieth century. Politics, society, economy, and culture of Europe and Europe's relations with the wider world, from 1870 to the present, focusing on histories of violence and conflict and struggles for community, including world wars, revolutions, colonialism, decolonization, and European integration.  Effective Fall 2014 Effective Summer 2019

HST 369  Japan to 1800  Japan to 1800  Spring of every year. 3(3-0)  Political, social, and cultural developments. Growth and transformation of courtier, samurai, and commoner society. Japan before 1800. Exploration of political, religious, and literary developments including Buddhism and Shinto, foreign relations and state formation, poetry and theater. Evolution of women's roles, samurai and warfare, and early modern popular culture.  Effective Spring 2018 Effective Fall 2019
HST 370  
**Japan since 1800**
Modern Japan: History, Culture, and Society  
Fall of every year. 3(3-0)
Transformation of Japan's political structure, society, and economy from the period of centralized feudalism to Japan's emergence as a post-industrial society since World War II. Japan since 1800. Transformation of Japan's political structure, society, and economy from a feudalist country to a modern and militant empire, then from a war-torn and destitute nation to an economic giant with a flourishing culture in the contemporary world.
Effective Fall 2017 Effective Fall 2019

DEPARTMENT OF HUMAN DEVELOPMENT AND FAMILY STUDIES

HDFS 994  
**Sex Therapy**
Advanced Evidence-Based Couple Therapy  
Spring of odd years. 3(3-0) RB: HDFS 445 R: Open to graduate students in the Department of Human Development and Family Studies. Approval of department.
Major models of sex therapy utilized in couple and family therapy. Etiology and treatment of major sexual dysfunctions. In-depth study of evidence-based couple therapy. SA: FCE 994
Effective Fall 2011 Effective Summer 2019

COLLEGE OF HUMAN MEDICINE

HM 807  
**Practical Application and Critical Thinking Synthesis in Public Health**
Practical Application and Critical Thinking in Public Health  
Fall of every year. Spring of every year. Summer of every year. 3(3-0) RB: Academic or professional background in public health and/or public health related discipline R: Open to students in the Public Health Major or approval of college.
Critical thinking, reading skills, explanations, problem solving, and decision making in public health using case studies. Questioning assumptions, identifying bias, determining causality, and application of the scientific method. Reporting guidelines and systematic literature reviews.
Effective Summer 2018 Effective Summer 2019

HM 892  
**Public Health Practicum**
Public Health Applied Practice Experience  
Fall of every year. Spring of every year. Summer of every year. 1 to 8 credits. A student may earn a maximum of 8 credits in all enrollments for this course. P: HM 801 and HM 891 RB: Academic or professional background in public health or public health-related discipline, undergraduate level math or statistics coursework. R: Approval of college.
Professional practicum.
Effective Summer 2013 Effective Summer 2019

HM 893  
**Public Health Capstone**
Public Health Integrative Learning Experience  
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: HM 801 and HM 891 and HM 892 RB: Academic or professional background in public health and/or public health related discipline, undergraduate level math or statistics coursework R: Approval of college.
Capstone experience.
Effective Spring 2019 Effective Summer 2019
DEPARTMENT OF MEDICINE

MED 619  Advanced Internal Medicine-Ambulatory
Fall of every year. Spring of every year. Summer of every year. 6(6-0) 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: MED 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine.
Clinical experiences to refine diagnostic and management skills of the complicated general internal medicine patient in the ambulatory setting.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.
Effective Summer 2018 Effective Summer 2019

MED 621  Advanced Internal Medicine-Inpatient
Fall of every year. Spring of every year. Summer of every year. 6(6-0) 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: MED 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine.
Clinical experiences to refine diagnostic and management skills of the complicated general internal medicine patient in the inpatient setting.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.
Effective Summer 2018 Effective Summer 2019

COLLEGE OF MUSIC

MUS 870  Advanced Modal Counterpoint
Fall of every year. Fall of odd years. 3(3-0) P: MUS 869 or approval of college R: Open to graduate students in the College of Music.
Techniques of voice-leading through imitative counterpoint. Compositional exercises modeled after sacred vocal polyphony of the sixteenth century, principally Palestrina and Victoria.
Effective Spring 2017 Effective Fall 2019

MUS 871  Advanced Tonal Counterpoint
Spring of every year. Spring of even years. 3(3-0) P: MUS 869 or approval of college R: Open to graduate students in the College of Music.
Compositional exercises modeled after instrumental polyphony of the eighteenth century, principally J.S. Bach. Influence of fugal technique in the nineteenth and twentieth centuries.
Effective Spring 2017 Effective Fall 2019

MUS 873  Early 20th Century Techniques
Fall of every year. Spring of every year. 2(2-0) R: Open to graduate students in the College of Music.
Melodic, harmonic, rhythmic, and textural devices employed in early twentieth century music.
Effective Spring 2017 Effective Fall 2019

MUS 891  Special Topics
Fall of every year. Spring of every year. Summer of every year. 1 to 10 credits. A student may earn a maximum of 25 credits in all enrollments for this course. P: Approval of college.
Special topics supplementing regular course offerings proposed by faculty on a group study basis for graduate students.
Effective Fall 2007 Effective Fall 2019
MUS 896  Master's Recital Performance  
Fall of every year. Spring of every year. Summer of every year. 1 to 10 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open to master's students in the Music Performance major. Approval of college. R: Open to master's students in the Music Performance major.

Directed experience in recital performance in partial fulfillment of Plan B master's degree requirements for master's students in performance. 
Request the use of the Pass-No Grade (P-N) system. 
Effective Summer 2014 Effective Fall 2019

MUS 897  Concert Conducting  
Fall of every year. Spring of every year. Summer of every year. 1 to 10 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open to master's students in the Master of Music in Music Conducting. R: Open to master's students in the College of Music. 

Directed experience in concert conducting in partial fulfillment of Plan B master's degree requirements. 
Request the use of the Pass-No Grade (P-N) system. 
Effective Fall 2007 Effective Fall 2019

MUS 898  Master's Research  
Fall of every year. Spring of every year. Summer of every year. 1 to 10 credits. A student may earn a maximum of 20 credits in all enrollments for this course. R: Open to master's students in the College of Music. Approval of college. R: Open to master's students in the College of Music. 

Directed research in support of Plan B master's degree requirements. 
Effective Fall 2007 Effective Fall 2019

MUS 899  Master's Thesis Research  
Fall of every year. Spring of every year. Summer of every year. 1 to 10 credits. A student may earn a maximum of 20 credits in all enrollments for this course. R: Open to master's students in the College of Music. Approval of college. R: Open to master's students in the College of Music. 

Directed research in partial fulfillment of Plan A master's degree requirements. 
Request the use of the Pass-No Grade (P-N) system. 
Effective Fall 2007 Effective Fall 2019

MUS 996  Doctoral Recital Performance  
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. R: Open to doctoral students. Approval of college. R: Open to doctoral students in the College of Music. 

Directed experience in recital performance in partial fulfillment of requirements for the Doctor of Musical Arts degree. 
Effective Summer 2012 Effective Fall 2019

MUS 997  Doctoral Concert Conducting  
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. R: Open to doctoral students in the Doctor of Musical Arts in Music Conducting. Approval of college. R: Open to doctoral students in the College of Music. 

Directed experience in concert conducting in partial fulfillment of requirements for the Doctor of Musical Arts degree. 
Request the use of the Pass-No Grade (P-N) system. 
Effective Fall 2007 Effective Fall 2019

MUS 998  Doctoral Music Composition  
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. R: Open to doctoral students in the Doctor of Musical Arts in Music Composition. Approval of college. R: Open to doctoral students in the College of Music. 

Directed experience in composition in partial fulfillment of requirements for the Doctor of Musical Arts degree. 
Request the use of the Pass-No Grade (P-N) system. 
Effective Fall 2007 Effective Fall 2019
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 36 credits in all enrollments for this course. **R:** Open to doctoral students in the College of Music. Approval of college. R: Open to doctoral students in the College of Music. Doctoral dissertation research. Request the use of the Pass-No Grade (P-N) system. **Effective Fall 2014 Effective Fall 2019**

PROGRAM IN NEUROSCIENCE

NEU 842  Neuroethics
Summer of every year. 2(2-0) 3(3-0) RB: (NEU 840 or concurrently) or (NEU 841 or concurrently) Introduction to the field of neuroethics and the responsible application of advances in neuroscience research. **Effective Summer 2017 Effective Summer 2019**

COLLEGE OF NURSING

NUR 205  Introduction to Professional Nursing
Fall of every year. Spring of every year. Summer of every year. 4(2-6) P: CEM 143 and PSY 101 P: CEM 143 and PSY 101 and HDFS 225 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 Effective Fall 2019**

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 R: Open to students in the College of Nursing. Not open to students with credit in NUR 300. 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 Summer 2017 Effective Fall 2019**

NUR 371  Behavioral Health Nursing
Fall of every year. Spring of every year. 4(2-6) P: NUR 322 and NUR 324 P: NUR 323 and NUR 333 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 Effective Fall 2019**

NUR 460  Leadership in Clinical Practice
Fall of every year. Spring of every year. Summer of every year. 5(2-9) P: (NUR 445 and NUR 436 and NUR 437) and completion of Tier I writing requirement P: NUR 434 and NUR 438 and NUR 439 C: NUR 475 concurrently. 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. Precepted practicum to facilitate the student’s transition to professional practice. Application of leadership concepts, theories, and principles. **Effective Fall 2015 Effective Fall 2019**
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 or (NUR 455 and NUR 465) P: NUR 455 and NUR 465
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. Theoretical and practicum basis for community-oriented population nursing practice.
Effective Spring 2014 Effective Fall 2018

NUR 471  Public Health Nursing
Fall of every year. Spring of every year. Summer of every year. 3(2-3) P: NUR 445 and NUR 436 and NUR 437 P: NUR 434 and NUR 438 and NUR 439 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 Effective Fall 2019

DEPARTMENT OF POLITICAL SCIENCE

PLS 201  Introduction to Methods of Political Analysis
Fall of every year. Spring of every year. Summer of every year. 4(4-0) P: PLS 200 or MC 201
Philosophy of social science. Principles of research design, measurement, hypothesis testing, measures of association, cross tabulations, and regression analysis.
Effective Fall 2014 Effective Fall 2018

DEPARTMENT OF RADIOLOGY

RAD 609  Radiology Clerkship
Fall of every year. Spring of every year. Summer of every year. 4 to 8 credits. 3 to 12 credits. A student may earn a maximum of 32 credits in all enrollments for this course. A student may earn a maximum of 24 credits in all enrollments for this course. RB: Completion of two years of graduate-professional program in College of Human Medicine or College of Osteopathic Medicine. R: Open to graduate-professional students in the College of Human Medicine or in the College of Osteopathic Medicine.
Diagnostic imaging consultation. Participation in image interpretation and observation in hospital or out-patient radiology setting. Diagnostic imaging consultation. Participation in image interpretation and observation in hospital or out-patient radiology setting. Radiological procedure guideline and patient safety and comfort. Complications of radiological procedures. 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 1992 Effective Summer 2019

SCHOOL OF SOCIAL WORK

SW 845  Administrative Skills in Social Work
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: SW 810 or SW 812B R: Open to graduate students in the School of Social Work or approval of school. R: Open to graduate students in the Master of Social Work in Clinical Social Work or in the Master of Social Work in Clinical Social Work or approval of school. Not open to students with credit in SW 865.
Knowledge and skills for social work practice in an organizational context.
Effective Summer 2018 Effective Fall 2019