# MICHIGAN STATE UNIVERSITY

### Report of

**THE UNIVERSITY COMMITTEE ON CURRICULUM**

**to the Faculty Senate February 21, 2023**

*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

MICHIGAN STATE UNIVERSITY

University Committee on Curriculum

February 21, 2023

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 |

MICHIGAN STATE UNIVERSITY

February 21, 2023

TO: Faculty Senate

FROM: University Committee on Curriculum

SUBJECT: New Academic Programs and Program Changes: New Courses and Course Changes

# PART I - NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

## COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

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

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

* 1. Under the heading **Requirements for the Bachelor of Science Degree in Nutritional Sciences**

make the following changes:

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

HNF 250L Professional Development and Career Planning

in Nutrition 1

Add the following course:

HNF 255 Professional Development and Career Planning

in Nutrition 1

* + 1. Replace item 3. a. (5) with the following:

Completion of a minimum of 3 credits in Experiential Learning. Students must consult with their academic advisor for specific details on this requirement.

Completion of this requirement may be fulfilled by enrollment in ANR 475, HNF 475, HNF 493, HNF 499 or any approved study abroad, service, or research experience.

* + 1. In item 3. b. under the **Biomedical and Molecular Nutrition** concentration, make the following changes:
       1. Change the total credits from ’40 to 50’ to ’40 to 52’.
       2. In item (2), change the requirement to ‘One of the following, either (a), (b), (c), or

(d) (8 to 10 credits)’.

* + - 1. Reletter item ‘b’ to item ‘c’ and add the following new item ‘b’:

|  |  |  |  |
| --- | --- | --- | --- |
| PHY | 221 | Studio Physics for Life Scientists I | 4 |
| PHY | 222 | Studio Physics for Life Scientists II | 4 |

* + - 1. In item 3. b. (3) add the option of LB 271 Organic Chemistry 3, to CEM 251. (CEM 251 or LB 271)
      2. Add the following item (d):

|  |  |  |  |
| --- | --- | --- | --- |
| PHY | 241 | Physics for Cellular and Molecular |  |
|  |  | Biologists I | 4 |
| PHY | 242 | Physics for Cellular and Molecular |  |
|  |  | Biologists II | 4 |
| PHY | 251 | Introductory Physics Laboratory I | 1 |
| PHY | 252 | Introductory Physics Laboratory II | 1 |

* + 1. In item 3. b. under the **Global Nutrition and Health** concentration, make the following changes:
       1. Change the total credits from ’42 to 49’ to ’43 to 49’.
       2. In item (3) change ANP 200 from ‘2’ to ‘3’ credits.
       3. In item (8) change ‘EEM 260’ to ‘AFRE 260’.

Effective Summer 2023.

## COLLEGE OF ARTS AND LETTERS

1. Establish a **Graduate Certificate** in **Nonprofit Leadership, Global Cultures, and Social Enterprise** in the Department of Religious Studies. The University Committee on Graduate Studies (UCGS) recommended approval of this request at its October 17, 2022 meeting.

### Background Information:

The certificate program originated from faculty members in the Department of Religious Studies as a natural development of their existing Nonprofit Leadership undergraduate concentration and courses. It is unique in combining practical understanding of Nonprofits (501c3) organizations with a distinctive emphasis on cultural knowledge in a global religious context. This is an online Revenue-Based Initiative [RBI] graduate certificate program that is unique in the world because of its emphasis on global cultural knowledge and its home in the Department of Religious Studies in the College of Arts and Letters. There is no other Global Nonprofit Leadership initiative here at MSU.

### Academic Programs Catalog Text:

The Graduate Certificate in Nonprofit Leadership, Global Cultures, and Social Enterprise is a transdisciplinary graduate certificate administered by the Department of Religious Studies in the College of Arts and Letters. Students will develop expertise in the national and international nonprofit, NGO, or philanthropic sectors in the context of global cultural knowledge, with an emphasis on leadership, ethics, values, and human and ecological flourishing in civil society, particularly in a religious context. There are four areas of primary focus: (1) nonprofit organizations and leadership; (2) global cultural and religious knowledge, ethics and values; (3) individual and cultural renewal and flourishing; and (4) social entrepreneurship. Practical application and social engagement is emphasized.

### Admission

Students will be admitted for fall semester and on an ongoing basis. A student will be able to complete the program in four to five semesters. Students must:

* + 1. have an undergraduate degree from or be a current advanced undergraduate student at a recognized institution; and
    2. have demonstrated familiarity with and work experience in the non-profit sector.

In addition to meeting the requirements of the university and the College of Arts and Letters, students must meet the requirements specified below. The graduate certificate is available only online.

### Requirements for the Graduate Certificate in Nonprofit Leadership, Global Cultures, and Social Enterprise

Students must complete 10 credits from the following:

1. The following course (2 credits):

CREDITS

REL 817 Religion, Cultural Knowledge, and Nonprofits 2

1. Complete four courses from the following (8 credits):

GNL 821 Values and Ethics in Applied Leadership 2

|  |  |  |  |
| --- | --- | --- | --- |
| GNL | 822 | Cross Cultural Dialogue and Collaboration | 2 |
| GNL | 823 | Social Entrepreneurship, Innovation, and Religion | 2 |
| GNL | 824 | Social Entrepreneurship and Religion: Case Studies | 2 |
| GNL | 825 | Creativity in Organizations | 2 |
| GNL | 826 | Flourishing Under Stress | 2 |
| GNL | 827 | Nonprofit Institutions and Civil Society in a Global Context | 2 |
| GNL | 828 | Nonprofit Governance | 2 |
| GNL | 829 | Nonprofits and the Legal Environment | 2 |
| GNL | 830 | Nonprofit and NGO Marketing and Fundraising | 2 |
| GNL | 831 | Grant-writing for Nonprofits | 2 |
| REL | 818 | Global Religions, NGOs, and Social Change | 2 |
| REL | 819 | Religious Organizations and Civil Society in Asia | 2 |
| REL | 820 | Secularisms, Publics, and Religions in Asia | 2 |

Effective Fall 2023.

## ELI BROAD COLLEGE OF BUSINESS

1. Change the requirements for the **Master of Business Administration** degree in the Eli Broad College of Business. The University Committee on Graduate Studies (UCGS) approved this request at their January 23, 2023 meeting.

*The concentrations in the Master of Business Administration degree are noted on the student’s academic record when the requirements for the degree have been completed.*

* 1. Under the heading **Requirements for the Master of Business Administration Degree** make the following changes:
     1. In item 1. b., add the following concentrations: Entrepreneurship

Healthcare Management

Effective Summer 2023.

1. Change the administrative responsibility of the **Minor** in **International Business** from the Eli Broad College of Business to the Department of Marketing.

Effective Fall 2023.

## COLLEGE OF EDUCATION

1. Change the requirements for the **Minor in Coaching** in the Department of Kinesiology.
   1. Under the heading **Requirements for the Minor in Coaching** make the following changes:
      1. In item 1., change the total credits from ‘17’ to ‘20’.
      2. In item 1., delete the following course:

KIN 173 Foundations of Kinesiology 3

Add the following courses:

KIN 210 Principles of Exercise Physiology 3

KIN 220 Principles of Sports Medicine 3

* + 1. In item 3., delete the following course:

KIN 300E Coaching Football 2

Effective Fall 2023.

1. Change the requirements for the **Minor** in **Health Promotion** in the Department of Kinesiology.
   1. Under the heading **Requirements for the Minor in Health Promotion** make the following changes:
      1. Change the total credits from ‘18’ to ‘21’.
      2. In item 1., change the total credits from ‘9’ to ‘12’.
      3. In item 1., delete the following course:

KIN 121 The Healthy Lifestyle 3

Add the following courses:

|  |  |  |  |
| --- | --- | --- | --- |
| KIN | 210 | Principles of Exercise Physiology | 3 |
| KIN | 240 | Principles of Biobehavioral Health | 3 |

* + 1. In item 2., delete the following course:

EEM 260 World Food, Population and Poverty 3

Add the following course:

AFRE 206 World Food, Population and Poverty 3

Effective Fall 2023.

1. Change the requirements for the **Bachelor of Science** degree in **Kinesiology** in the Department of Kinesiology.
   1. Under the heading **Requirements for the Bachelor of Science Degree in Kinesiology** replace the entire entry with the following:

The following requirements for the major:

a. All of the following with a minimum grade of 2.0 in each course (11 credits):

|  |  |  |  |
| --- | --- | --- | --- |
| CEM | 141 | General Chemistry | 4 |
| MTH | 103 | College Algebra | 3 |
| PSL | 250 | Introductory Physiology | 4 |
| All of the following with a minimum grade of 2.0 in each course (16 credits): | | | |
| KIN | 210 | Principles of Exercise Physiology | 3 |
| KIN | 216 | Applied Human Anatomy | 3 |
| KIN | 220 | Principles of Sports Medicine | 3 |
| KIN | 240 | Principles of Biobehavioral Health | 3 |
| KIN | 251 | Principles of Human Movement | 4 |
| All of the following courses with a minimum grade-point average of 2.0 (12 credits): | | | |
| KIN | 310 | Physiological Bases of Physical Activity | 3 |
| KIN | 330 | Biomechanics of Physical Activity | 3 |
| KIN | 345 | Sport and Exercise Psychology (W) | 3 |
| KIN | 360 | Physical Growth and Motor Behavior | 3 |

b.

c.

1. Both of the following courses (2 credits):

|  |  |  |  |
| --- | --- | --- | --- |
| CEM | 161 | Chemistry Laboratory I | 1 |
| KIN | 190 | Frontiers in Applied Health Sciences | 1 |

1. Completion of an approved cognate in kinesiology (a minimum of 12 credits).
2. Completion of a minimum of 3 credits in Experiential Learning. Completion of this requirement may be fulfilled by enrollment in KIN 492, KIN 493, KIN 494, KIN 495, KIN 496, or any approved study abroad, service, research, or internship experience. Students must consult with their academic advisor for specific details of this requirement.

Effective Fall 2023.

## JAMES MADISON COLLEGE

1. Change the requirements for the **Bachelor of Arts** degree in **James Madison College**.
   1. Under the heading **Requirements for the Bachelor of Arts Degree in James Madison College**

make the following changes:

* + 1. In item 1., paragraph two, delete James Madison 112.
    2. In item 1., paragraph four, under *Comparative Cultures and Politics*, delete James Madison 395.
    3. In item 2. a., under *Required Courses*, delete the following course:

MC 112 Identity and Community: An Approach to Writing II 4

Effective Fall 2023.

## LYMAN BRIGGS COLLEGE

1. Delete the curriculum and degree requirements for the **Coordinate Major** in **Earth Science- Interdepartmental** in Lyman Briggs College. The University Committee on Undergraduate Education (UCUE) provided consultative commentary to the Provost after considering this request at its November 3, 2022 meeting. 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 2020. No students are to be readmitted to the program effective Fall 2020. Effective Spring 2023, coding for the program will be discontinued and the program will no longer be available in Lyman Briggs College. Students who have not met the requirements for the Coordinate Major in Earth Science-Interdepartmental through Lyman Briggs College prior to Spring 2023 will have to change their major.

1. Delete the curriculum and degree requirements for the **Field of Concentration (Major)** degree in **Earth Science** in Lyman Briggs College. The University Committee on Undergraduate Education (UCUE) provided consultative commentary to the Provost after considering this request at its November 3, 2022 meeting. 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 2020. No students are to be readmitted to the program effective Fall 2020. Effective Spring 2023, coding for the program will be discontinued and the program will no longer be available in Lyman Briggs College. Students who have not met the requirements for the Field of Concentration (Major) in Earth Science through Lyman Briggs College prior to Spring 2023 will have to change their major.

## COLLEGE OF MUSIC

1. Change the requirements for the **Graduate Certificate** in **Music Career Development** in the College of Music. The University Committee on Graduate Studies (UCGS) approved this request at its January 23, 2023 meeting.
   1. Under the heading **Graduate Certificate in Music Career Development**, replace item 3. with the following:

Two of the following courses (4 to 6 credits):

|  |  |  |  |
| --- | --- | --- | --- |
| ACM | 461 | Financial Management and Planning of Arts, Cultural |  |
|  |  | and Museum Management | 3 |
| ACM | 462 | Marketing and Public Relations in Arts, Cultural, and |  |
|  |  | Museum Management | 3 |
| ACM | 463 | Event Production and Planning for Arts and Culture | 3 |
| ACM | 801 | Introduction to Arts, Cultural, and Museum Studies | 3 |
| MUS | 442 | Advanced Techniques in Real Time Performance | 2 |
| MUS | 487 | Music Preparation and Presentation | 2 |
| MUS | 494 | Musicians’ Health and Wellness | 2 |
| MUS | 830 | Research Methods and Materials in Music | 3 |
| MUS | 844 | Secondary or Special Emphasis: Piano | 1 |
| MUS | 845 | Secondary or Special Emphasis: Voice | 1 |
| MUS | 846 | Secondary or Special Emphasis: String | 1 |
| MUS | 847 | Secondary or Special Emphasis: Brass | 1 |
| MUS | 848 | Secondary or Special Emphasis: Woodwind | 1 |
| MUS | 877 | Scoring for Orchestra and Band | 2 |
| MUS | 893 | Topics in Entrepreneurship | 2 |
| MUS | 894 | Seminar in Musicians' Health and Wellness | 1 |
| MUS | 896 | Master's Performance | 1 or 2 |
| MUS | 964 | Seminar in College Music Teaching | 2 |
| MUS | 996 | Doctoral Performance | 1 or 2 |

Students who select MUS 442 must enroll in the Film Scoring section. Students who select MUS 896 or MUS 996 must enroll in section 810, which is designated for instruction in chamber music. With the approval of the Associate Dean of Graduate Studies, students may substitute other appropriate courses to fulfill this requirement.

Effective Fall 2023.

1. Establish a **Graduate Certificate** in **Musicology** in the College of Music. The University Committee on Graduate Studies (UCGS) recommended approval of this request at its October 17, 2022 meeting.

### Background Information:

This certificate is modeled on the Graduate Certificate in Music Theory, which has been highly successful. The certificate responds to current hiring practices in colleges and university music units. Music faculty in performance, composition, conducting, music theory, and music education are increasingly called upon to teach undergraduate courses in musicology or ethnomusicology. This certificate is designed to help prepare those students and make them more marketable for careers in post-secondary education. It will enhance the educational opportunities offered to our doctoral students without any additional cost and without adding significantly to required course work.

### Academic Programs Catalog Text:

The Graduate Certificate in Musicology, which is administered by the College of Music, is designed for doctoral students in the College of Music who wish to gain additional proficiency in musicology and ethnomusicology. Students in the certificate program develop skills in research, writing, and classroom teaching through course work, training in pedagogy, and independent research projects.

The certificate is available to students who are enrolled in a 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 Musicology, a student must be enrolled in a doctoral degree program in the College of Music.

Students must submit the following materials to the area chair of musicology by December 1st:

* + 1. An 800- to 1000-word personal statement addressing the applicant’s career plans and research/teaching interests.
    2. A curriculum vitae that includes all relevant education and professional experience.
    3. One transcript from every college or university attended. Transcripts may be unofficial.
    4. A 10- to 15-page research paper demonstrating research ability, including bibliographic citations and/or fieldwork experience.
    5. One letter of recommendation sent by recommender directly to the Area Chair of musicology.

Following initial screening, candidates will be invited to interview with the musicology faculty to determine admissibility.

### Requirements for the Graduate Certificate in Musicology

Students must complete 17 or 18 credits from the following:

1. The following course (3 credits):

CREDITS

MUS 830 Research Methods and Materials in Music 3

1. Complete 6 credits of musicology at the 800 or 900 level.
2. Complete 6 additional credits of ethnomusicology at the 400, 800, or 900 level. If a 400-level course is to be used to satisfy this requirement, the student must enroll concurrently in 1 credit

of the corresponding section of MUS 892A Seminar in Music History.

1. Complete one of the following courses (2 or 3 credits):

|  |  |  |  |
| --- | --- | --- | --- |
| MUS | 964 | Seminar in College Music Teaching | 2 |
| MUS | 992 | Seminar in Musicology | 3 |

1. Complete a capstone project advised and approved by a committee of at least two of the musicology faculty and consisting of one of the following options:
   1. A research paper of 15-20 pages that, in most cases, will grow from a seminar paper or project on a topic substantially

different than that of the PhD dissertation, the DMA lecture-recital and scholarly document or either of the two lecture-recitals.

Alternative formats appropriate to the project (e.g. a lecture-recital) are possible with the approval of the committee.

* 1. A teaching portfolio consisting of a teaching philosophy, sample syllabi, and sample teaching videos.

Effective Fall 2023.

## COLLEGE OF NATURAL SCIENCE

1. Change the requirements for the **Doctor of Philosophy** degree in **Physics** in the Department of Physics and Astronomy. The University Committee on Graduate Studies (UCGS) approved this request at is January 23, 2023 meeting.

*The concentration in the Doctor of Philosophy degree in Physics is noted on the student’s academic record when the requirements for the degree have been completed.*

* 1. Under the heading **Admission** delete item 2.:

A grade point average of at least 3.00 in the courses referenced in item 1. above.

* 1. Under the heading **Requirements for the Doctor of Philosophy Degree in Physics**

replace the entire entry with the following:

Students must:

* + 1. pass the comprehensive examination requirement, which is fulfilled by passing a series of subject examinations (see item 2.) and an oral subject examination (see item 3.).
    2. select three of the following courses, in coordination with an initial mentoring committee consisting of the graduate program director, an initial faculty advisor, and another faculty member with expertise in the research area of interest. These three courses will serve as the subject examination courses that count toward the comprehensive examination requirements. The subject examination grade is determined by the higher of the course grade and the final examination grade. A student may demonstrate their ability in the material by scoring a 3.0 on the final examination in lieu of taking the course.

|  |  |  |  |
| --- | --- | --- | --- |
| PHY | 820 | Classical Mechanics | 3 |
| PHY | 831 | Statistical Mechanics | 3 |
| PHY | 841 | Classical Electrodynamics I | 3 |
| PHY | 851 | Quantum Mechanics I | 3 |

* + 1. pass the oral subject examination which consists of a research presentation that is evaluated by the students' guidance committee based on a published rubric. A

3.5 or 4.0 grade constitutes a passing grade. The oral subject exam shall be held by the beginning of the third year after entering the program if the Subject Exam requirement is fulfilled by the end of the fall semester of the second year. If the Subject Exam requirement is fulfilled later than fall of the second year, the Guidance Committee should be formed no later than six months after that happens.

* + 1. complete the following course with a grade of 3.0 if they have not taken an equivalent course previously or demonstrated that they acquired the necessary skills:

PHY 810 Methods of Theoretical Physics 3

Course equivalency is determined by the Graduate program director.

* + 1. complete one of the courses listed under item 2. that was not selected as one of the three subject exam courses if the student's initial mentoring committee or guidance committee determines the background is required for the research.

|  |  |  |  |
| --- | --- | --- | --- |
| PHY | 842 | Classical Electrodynamics II | 3 |
| PHY | 852 | Quantum Mechanics II | 3 |

* + 1. complete a minimum of 24 credits of PHY 999 Doctoral Dissertation Research.
    2. submit a dissertation proposal or evaluation to the guidance committee based on the PHY 999 Doctoral Dissertation Research.
    3. successfully defend the doctoral dissertation in a meeting with the guidance committee following a public presentation about the PHY 999 Doctoral Dissertation Research.

**Concentration in Beam Physics**. Students are exempt from enrolling in the core courses mentioned in item 2., 4., and 5. above, and acquire the corresponding knowledge through equivalent studies and courses at local universities. All other requirements must be met. Written examinations can be administered by mutually agreeable local proctors upon prior arrangements with the Director of Graduate Studies. The final student thesis defense must be at MSU.

Changes to, or a waiver for certain program elements of the above requirements are, within the requirements set by the University and the College of Natural Science, subject to the approval by the Graduate Program Director.

Effective Fall 2023.

## COLLEGE OF OSTEOPATHIC MEDICINE

1. Change the requirements for the **Professional Program in Osteopathic Medicine** leading to the Doctor of Osteopathic Medicine degree the College of Osteopathic Medicine. The University Committee on Graduate Studies (UCGS) approved this request at its January 23, 2023 meeting.
   1. Under the heading **Requirements for the Doctor of Osteopathic Medicine Degree** replace the entire entry with the following:

The standard duration of the D.O. degree program is four years; the maximum time for completion of all degree requirements is six years as defined in the MSUCOM Policy for Retention, Promotion, and Graduation. Specific program requirements leading to conferral of the D.O. degree include:

* + 1. Completion of each required course in the preclerkship and clerkship phase with a passing grade or successful remediation.
    2. Passing score on the National Board of Osteopathic Medical Examiners (NBOME) COMLEX-USA Level 1, COMLEX-USA Level 2 Cognitive Evaluation (CE) licensure examinations with defined time limits and with no more than three (3) attempts permitted on each examination.
    3. Compliance with annual training requirements of the Responsible Conduct of Research (RCR) program.
    4. Achievement of the academic requirements and professional conduct expectations of the

D.O. program as outlined in the policies and procedures of MSUCOM and MSU.

#### *Preclerkship Curriculum*

The preclerkship curriculum consists of 95 required credit hours across six semesters, representing years one and two of the four-year program. The courses are offered in a predefined sequence.

Successful completion of each course in a semester is

required to advance to the following semester. The following courses are required:

|  |  |  |  |
| --- | --- | --- | --- |
| OMM | 511 | Osteopathic Manipulative Medicine I | 1 |
| OMM | 512 | Osteopathic Manipulative Medicine II | 1 |
| OMM | 513 | Osteopathic Manipulative Medicine III | 1 |
| OMM | 514 | Osteopathic Manipulative Medicine IV | 1 |
| OMM | 515 | Osteopathic Manipulative Medicine V | 1 |
| OST | 510 | Clinical Human Gross Anatomy | 6 |
| OST | 520 | Foundations of Biomedical Science for Osteopathic Medicine | 8 |
| OST | 521 | Musculoskeletal System | 4 |
| OST | 522 | Hematology, Oncology and Infectious Diseases | 3 |
| OST | 523 | Neurological System | 10 |
| OST | 524 | Psychopathology | 2 |
| OST | 525 | Genitourinary System | 4 |
| OST | 526 | Endocrine System | 3 |
| OST | 531 | Reproduction, Development, and Sexuality | 3 |
| OST | 532 | Integumentary System | 2 |
| OST | 533 | Gastrointestinal System | 6 |
| OST | 534 | Cardiovascular System | 8 |
| OST | 535 | Respiratory System | 7 |
| OST | 550 | Introduction to Osteopathic Medicine and Clinical Skills | 2 |
| OST | 551 | Osteopathic Patient Care I | 2 |
| OST | 552 | Osteopathic Patient Care II | 2 |
| OST | 553 | Osteopathic Patient Care III | 3 |
| OST | 554 | Osteopathic Patient Care IV | 3 |
| OST | 555 | Osteopathic Patient Care V | 3 |
| OST | 561 | Ambulatory Care Capstone | 3 |
| OST | 562 | Hospital Care Capstone | 3 |
| OST | 563 | Health Systems Science Capstone | 2 |

In addition, each student must complete a clinical experience requirement, which may be met by earning 1 credit in one of the following courses:

|  |  |  |  |
| --- | --- | --- | --- |
| FCM | 650 | Principles of Family Medicine | 1 |
| FCM | 660 | Pre-Clerkship International Preceptor | 1 |

#### *Clerkship Curriculum*

The clerkship curriculum consists of 80 rotation weeks in years three and four of the four-year program following OST 601 (Transitions II-Classroom to Bedside). Students may advance to clinical rotations after successful completion of the COMLEX-USA Level 1 examination. During the clerkship curriculum, students must successfully complete 40 weeks of required clinical clerkship core rotation courses and an additional 40 weeks of elective rotations to be selected from available required clinical clerkship elective rotation courses. Core rotation courses are scheduled by the COM Clerkship Office and Base Hospital training site and may occur in different sequences. Most core rotation courses are completed during year three. Three required longitudinal courses span the clerkship: OST 603-Core Clinical Concepts in year three, OMM 602-Osteopathic Principles and Practice in year three, and OST 604-Essential Clinical Skills for Senior Medical Students in year four.

A complete list of required clinical clerkship elective rotation courses includes the following rotation

|  |  |  |  |
| --- | --- | --- | --- |
| courses which are credited toward the non-surgery requirement: | | | |
| ANTR | 685 | Directed Study in Clinical Prosection | 1 to 6 |
| FCM | 621 | Family Medicine Specialty Rotation | 1 to 24 |
| HM | 610 | Pathology Clerkship | 3 to 6 |
| IM | 621 | Clinical Tropical Medicine Clerkship | 1 to 20 |
| IM | 651 | Cardiology Clerkship | 1 to 20 |
| IM | 652 | Gastroenterology Clerkship | 1 to 20 |
| IM | 653 | Oncology and Hematology Clerkship | 1 to 20 |
| IM | 654 | Pulmonary Disease Clerkship | 1 to 20 |
| IM | 655 | Nephrology Clerkship | 1 to 20 |
| IM | 659 | Medical Critical Care Clerkship | 1 to 20 |
| IM | 661 | Internal Medicine Specialty Clerkship | 1 to 20 |
| IM | 662 | Urgent Care Clerkship | 1 to 20 |
| IM | 663 | Emergency Medicine/Wilderness/Austere Medicine Clerkship | 1 to 20 |
| IM | 664 | Pediatric Emergency Medicine Clerkship | 1 to 20 |
| IM | 665 | Emergency Medicine Advanced Clerkship | 1 to 20 |
| IM | 666 | Emergency Medicine Toxicology | 3 to 18 |
| IM | 667 | Emergency Medicine Hyperbaric Medicine and Wound |  |
|  |  | Management | 3 to 18 |
| IM | 668 | Emergency Medicine EMS and Disaster Management | 3 to 18 |
| IM | 669 | Emergency Medicine Ultrasound | 3 to 18 |
| NOP | 657 | Neurology Specialty Clerkship | 1 to 24 |
| OMM | 601 | Osteopathic Manipulative Medicine Clerkship | 1 to 20 |
| OST | 685 | International Clerkship Rotations | 1 to 20 |
| OST | 686 | Global Health: Mexico – Clinical Immersion | 1 to 20 |
| OST | 687 | Global Health: Peru – Clinical Immersion | 1 to 20 |
| OST | 688 | Global Health: Cuba – Clinical Immersion | 1 to 20 |
| OST | 689 | Global Health: Haiti – Clinical Immersion | 1 to 20 |
| PED | 601 | Pediatric Specialty Clerkship | 3 to 24 |
| PMR | 601 | Physical Medicine and Rehabilitation Clerkship | 1 to 18 |
| PSC | 609 | Adult Psychiatry Clerkship | 3 to 6 |
| PSC | 610 | Child Psychiatry Clerkship | 3 to 6 |
| PSC | 611 | Addiction Psychiatry Clerkship | 3 to 6 |
| PSC | 612 | Geriatric Psychiatry Clerkship | 3 to 6 |
| RAD | 609 | Radiology Clerkship | 3 to 12 |
| RAD | 610 | Core Radiology Clerkship | 1 to 20 |
| The following rotation courses are credited toward the surgery requirement: | | | |
| NOP | 620 | Ophthalmology Clerkship | 1 to 24 |
| OSS | 640 | Cardio Thoracic/Vascular Surgery Clerkship | 1 to 20 |
| OSS | 641 | Facial and Plastic Reconstruction Surgery Clerkship | 1 to 20 |
| OSS | 642 | Neurosurgery Clerkship | 1 to 20 |
| OSS | 643 | Podiatry Clerkship | 1 to 20 |
| OSS | 644 | Sports Medicine Clerkship | 1 to 20 |
| OSS | 645 | Urology Clerkship | 1 to 20 |
| OSS | 646 | Maternal Fetal Medicine Clerkship | 1 to 20 |
| OSS | 647 | Reproductive Endocrine Clerkship | 1 to 20 |
| OSS | 648 | Anesthesiology Advanced Clerkship | 3 to 30 |

|  |  |  |  |
| --- | --- | --- | --- |
| OSS | 652 | Obstetrics and Gynecology Specialty Clerkship | 1 to 20 |
| OSS | 654 | Core Anesthesiology Clerkship | 1 to 20 |
| OSS | 655 | Pain Management Clerkship | 1 to 20 |
| OSS | 656 | Orthopedic Clerkship | 1 to 20 |
| OSS | 658 | Otorhinolaryngology Clerkship | 1 to 20 |
| OSS | 663 | General Surgery | 1 to 20 |
| RAD | 612 | Interventional Radiology | var. |

A maximum of eight (8) non-clinical rotation weeks may be selected to include rotations listed below or any elective clinical course completed in a virtual manner. The following rotation courses are credited toward the non-clinical requirement:

|  |  |  |  |
| --- | --- | --- | --- |
| OST | 615 | Biomedical Research | 3 to 18 |
| OST | 620 | Patient Safety and Quality Improvement | 2 or 3 |
| OST | 621 | Leadership in Healthcare | 3 |
| OST | 622 | Addiction Medicine | 3 |
| OST | 623 | Board Preparation | 1 to 6 |
| OST | 624 | Essentials in Diabetes | 3 |
| OST | 625 | Introduction to Military Medicine | 6 to 9 |
| OST | 626 | Special Topics in Healthcare Ethics: Case Studies | 3 |
| OST | 627 | Fundamentals of Health Policy and Advocacy | 3 |

NOTE: The number of rotation/course weeks determines the assigned credits.

Effective Summer 2023.

1. Establish a **Master of Science** degree in **Basic Medical Science** in the College of Osteopathic Medicine. The University Committee on Graduate Studies (UCGS) recommended approval of this request at its November 21, 2022 meeting.
   1. **Background Information**:

The mission of the Michigan State University College of Osteopathic Medicine (MSUCOM) is to provide world-class, osteopathic, student-centered graduate and medical education and research in order to foster community access to patient-centered medical care. We prepare physicians in the science of medicine, the art of caring and the power of touch, with a world view open to all people. (https://com.msu.edu/about-us/our-mission).

MSUCOM has been welcoming bright and talented people who want to make a difference in the world for over 50 years. It is our hope that all students who are admitted to the Doctor of Osteopathic Medicine (D.O.) program will be successful in their goals to complete the degree requirements. However, exceptions occur. The rationale for developing the Master of Science degree in Basic Medical Science is to aid osteopathic medical students who have successfully completed the first two years of the D.O. program but may not, for personal or other reasons, continue to pursue the D.O. degree. This proposal is intended to provide these students with an opportunity to apply the work done and skills learned in the preclerkship curriculum years one and two toward a graduate degree.

There are two categories of students who would be eligible to apply for the Master of Science degree in Basic Medical Science. The first is a student who was successful in the first two years of medical school, but who decided they no longer wish to pursue the profession of osteopathic medicine. This could be for personal or other reasons. The second is a student who passed all required preclerkship courses but is not able to achieve success in passing COMLEX-USA Level 1 or Level 2-CE- or meet the clerkship requirements in years three and four to earn a D.O. degree.

A small number of students a year leave MSUCOM with no degree. This happens for two reasons. They either fail to meet the D.O. program requirements, or they decide that practicing medicine is not the right career for them. Either way, these students have accrued a significant amount of education and, therefore, should be eligible for a degree that will allow them to move on to a productive career. There will be no impact on other degree programs at MSU. This unique opportunity would not be open to the student population at large. It would be restricted to osteopathic medical students who successfully completed the first two years of medical school. The program will not impact the Master of Arts degree in Clinical Medicine program in the College of

Human Medicine because the proposed program is designed specifically for D.O. students, and completion of the D.O. preclerkship program will be required for the M.S. degree.

Once the offer for a student to join the program has been made by the college administration, the student may or may not elect to switch from the D.O. to the Master of Science degree program. This program should have minimal impact on the human or financial resources of MSU or COM. Of the 300 students who matriculate each year, on average, no more than five per year would be eligible for this program. Currently enrolled students who have completed or are near completion of the first two years of medical school are eligible to apply. Students who are ineligible to advance in the D.O. program due to professional conduct issues would not be eligible for this program. Once the student opts to transfer into the Master of Science degree program, they may not return to pursue the D.O. degree at MSUCOM.

The proposed Master of Science degree in Basic Medical Science would be a post-hoc degree, not one in which a student could start medical school in anticipation of receiving this degree. Dual degrees will not be conferred to those who successfully complete the four-year curriculum and receive the D.O. degree.

### Academic Programs Catalog Text:

The Master of Science degree in Basic Medical Science is available to aid osteopathic medical students who have successfully completed the first two years of the D.O. program but may not, for personal or other reasons, continue to pursue the D.O. degree. Once a student enrolls in the Master of Science degree program, they may not return to pursuing the Doctor of Osteopathic Medicine degree at MSUCOM. The Master of Science degree will not be conferred to those who have successfully completed the four-year curriculum to receive the Doctor of Osteopathic Medicine degree.

### Admission

To be considered for admission to the Master of Science degree in Basic Medical Science, students must:

* + 1. be or have been enrolled in the College of Osteopathic Medicine as a medical student.
    2. have successfully completed the first two years (preclerkship) of the Doctor of Osteopathic Medicine program outline below.
    3. elect not to continue to completion of the Doctor of Osteopathic Medicine degree.

### Requirements for the Master of Science Degree in Basic Medical Science

CREDITS

Students must complete 98 credits for the degree. The Master of Science Degree in Basic Medical Science is available only under Plan A (with thesis).

1. Complete all of the following courses in years one and two of the D.O. preclerkship curriculum:

|  |  |  |  |
| --- | --- | --- | --- |
| *Semester 1* | |  | |
| ANTR 510 | | Clinical Human Gross Anatomy and Palpatory Skills | 8 |
| BMB 516 | | Metabolic Biochemistry: Nutrients and Products | 1 |
| OST 598 | | Evidence-Based Health Science | 1 |
| *Semester 2* | |  |  |
| BMB | 528 | Molecular Biology and Medical Genetics | 2 |
| OST | 551 | Osteopathic Patient Care I | 2 |
| OMM | 511 | Osteopathic Manipulative Medicine I | 1 |
| MMG | 531 | Medical Immunology | 2 |
| MMG | 532 | Medical Microbiology | 2 |
| PHM | 564 | Basic Principles of Medical Pharmacology | 2 |
| PSL | 539 | Principles of Cell Biology and Pathophysiology | 4 |
| *Semester 3* | | | |
| OMM | 512 | Osteopathic Manipulative Medicine II | 1 |
| OST | 552 | Osteopathic Patient Care II | 2 |
| OST | 556 | Pediatrics I | 1 |
| OST | 571 | Neuromusculoskeletal System | 10 |
| OST | 572 | Genitourinary System | 3 |

|  |  |  |  |
| --- | --- | --- | --- |
| OST | 573 | Endocrine System | 3 |
| *Semester 4* | | | |
| OMM | 513 | Osteopathic Manipulative Medicine III | 1 |
| OST | 553 | Osteopathic Patient Care III | 3 |
| OST | 557 | Pediatrics II | 1 |
| OST | 574 | Female Reproductive System | 3 |
| OST | 575 | Gastrointestinal System | 6 |
| OST | 576 | Integumentary System | 2 |
| *Semester 5* | | | |
| OMM | 514 | Osteopathic Manipulative Medicine IV | 1 |
| OST | 554 | Osteopathic Patient Care IV | 3 |
| OST | 558 | Pediatrics III | 1 |
| OST | 577 | Psychopathology | 2 |
| OST | 578 | Hematopoietic System | 2 |
| OST | 579 | Cardiovascular System | 9 |
| *Semester 6* | | | |
| OMM | 515 | Osteopathic Manipulative Medicine V | 1 |
| OST | 555 | Osteopathic Patient Care V | 3 |
| OST | 559 | Pediatrics IV | 1 |
| OST | 583 | Geriatrics | 1 |
| OST | 580 | Respiratory System | 7 |
| *Semester 4, 5, or 6* | | | |
| FCM | 640 | Principles of Family Medicine I | 1 |
| FCM | 650 | Principles of Family Medicine II | 1 |

1. Complete the Responsible Conduct of Research (RCR) requirements in years one and two.
2. Complete the following course:

OST 899 Master’s Thesis Research 4

This requirement must be completed within one full semester of entry into the program.

1. Pass an oral defense of the thesis.

### Time Limit

The time limit for completion of the master’s degree is six years from the beginning of the first semester in which credit was earned toward the degree.

Effective Fall 2023.

## COLLEGE OF SOCIAL SCIENCE

1. Change the requirements for the **Master of Science** degree in **Geography** in the Department of Geography, Environment, and Spatial Sciences. The University Committee on Graduate Studies (UCGS) approved this request at its January 23, 2023 meeting.
   1. Under the heading **Admission**, in the second paragraph under **Regular Status**, replace item 3. with the following:

Satisfactory scores on the Graduate Record Examination General Test for students seeking Plan (with thesis).

* 1. Under the heading **Requirements for the Master of Science Degree in Geography** replace the entire entry with the following (*Please note that Plan B is new)*:

The Master of Science in Geography is available under Plan A (with thesis) or Plan B (without thesis). The student must complete a minimum of 30 credits distributed as follows:

CREDITS

***Requirements for Both Plan A and Plan B*** (3 credits): One of the following seminar courses:

|  |  |  |  |
| --- | --- | --- | --- |
| GEO | 813 | Seminar in Urban and Economic Geography | 3 |
| GEO | 871 | Seminar in Physical Geography | 3 |

|  |  |  |  |
| --- | --- | --- | --- |
| GEO | 872 | Seminar in Human Geography | 3 |
| GEO | 873 | Seminar in Human-Environment Geography | 3 |
| GEO | 874 | Seminar in Geographic Information Science | 3 |

#### *Additional Requirements for Plan A*

* + 1. The following course (3 credits):

GEO 886 Research Design in Geography 3

* + 1. Complete an additional minimum of 9 credits from GEO courses at the 400 level or 800 level as approved by the student's guidance committee.
    2. Complete an additional minimum of 9 credits from 800-level or above courses taken inside or outside of the Department of Geography, Environment and Spatial Sciences as approved by the student's guidance committee.
    3. Completion of 6 credits of GEO 899 Master's Thesis Research.
    4. Completion of a research paper or poster at a professional meeting.
    5. Pass a final oral examination in defense of the thesis as approved by the student's guidance committee.

#### *Additional Requirements for Plan B*

1. Complete an additional minimum of 9 credits from GEO courses at the 800-level or above as approved by the student's guidance committee.
2. Complete an additional minimum of 9 credits from GEO courses at the 400 level or 800 level as approved by the student's guidance committee.
3. Complete an additional minimum of 9 credits from 800-level or above courses taken inside or outside of the Department of Geography, Environment and Spatial Sciences as approved by the student's guidance committee.
4. Pass a final examination as approved by the student's guidance committee.

Effective Fall 2023.

1. Change the requirements for the **Bachelor of Arts** degree in **Child Development: Birth to Kindergarten and Special Education** in the Department of Human Development and Family Studies. The Teacher Education Council (TEC) approved this request at its January 9, 2023 meeting.
   1. Under the heading **Requirements for the Bachelor of Arts Degree in Child Development** make the following changes:
      1. In item 2., delete the following statement:

In lieu of the minor, students will either complete the requirements for the Teaching Certificate for teaching children prek-3rd grade or select from teacher preparation requirements appropriate to their development as teachers of young children.

* + 1. In item 3., change the total credits from ‘52’ to ‘53’ and change the credits of HDFS 322L from ‘1’ to ‘2’.

Effective Fall 2023.

1. Change the requirements for the **Doctor of Philosophy** degree in **Human Development and Family Studies** in the Department of Human Development and Family Studies. The University Committee on Graduate Studies (UCGS) approved this request at its January 23, 2023 meeting.

*The concentrations in the Doctor of Philosophy degree in Human Development and Family Studies are noted on the student’s academic record when the requirements for the degree have been completed.*

* 1. Under the heading **Requirements for the Doctor of Philosophy Degree in Human Development and Family Studies** make the following change:
     1. Change the name of the concentration in ***Lifespan Human Development and Family Diversity*** to ***Diversity, Youth, and Family Development***.

Effective Fall 2023.

1. Change the requirements for the **Master of Arts** degree in **Youth Development** in the Department of Human Development and Family Studies. The University Committee on Graduate Studies (UCGS) approved this request at its January 23, 2023 meeting.
   1. Under the heading **Requirements for the Master of Arts Degree in Youth Development**, make the following changes:
      1. In item 1., delete the following course:

Youth and Complex Social Systems 3

Add the following course:

Youth-Adult Partnerships 3

* + 1. In item 2., delete the following course:

Youth-Adult Partnerships 3

Add the following course:

Youth and Complex Social Systems 3

Effective Fall 2023.

1. Change the requirements for the **Bachelor of Arts** degree in **Human Capital and Society** in the School of Human Resources and Labor Relations.
   1. Under the heading **Requirements for the Bachelor of Arts Degree in Human Capital and Society** make the following changes in item 3.:
      1. In item 3., change the total credits from ’42 or 43’ to ’39 or 40’.
      2. Change item 3. d. to ‘Complete a minimum of 15 credits with at least 3 credits from each of the four areas below (General, Human Capital Systems, International, and Labor History)’.
      3. In item 3. d., add the following category:

**Labor History**

|  |  |  |  |
| --- | --- | --- | --- |
| HST | 307 | Labor History of the United States to 1863: |  |
|  |  | Making a North American Working Class | 3 |
| HST | 308 | Labor History of the United States since 1863: |  |
|  |  | Modern Labor and Working-Class History | 3 |

* + 1. Delete item 3. e.

Effective Fall 2023.

1. Change the requirements for the **Bachelor of Science** degree in **Urban and Regional Planning** in the School of Planning, Design and Construction. The University Committee on Undergraduate Education (UCUE) approved this request at its January 5, 2023 meeting.
   1. Add the following **Admission** section:

Admission is competitive, and enrollment is limited for each entering class. The department accepts and reviews applications during the Spring semester of each year for admission into the UP core courses the following Fall.

All students interested in applying for admission as juniors to the bachelor’s degree program in Urban and Regional Planning must:

1. complete UP 201 with a minimum grade of 2.0;
2. submit an application package that will include:
   1. a resume;
   2. an application form indicating intent to apply to the upper division of the urban and regional planning program for the upcoming academic year; and
   3. an academic/career goals statement, which can be submitted in essay or video format.

Program faculty and academic staff determine admissions based on the applicants’ qualifications and the program’s enrollment capacity. Review committees will consider factors such as applicants’:

1. previous work, service, and research experiences;
2. overall grade-point average and performance in UP 201;
3. motivation and goals relative to the major and potential career; and
4. factors such as ability to overcome adversity, perseverance, teamwork, and work ethic.

Admission decisions are made each year at the end of the Spring semester.

For additional information about admission criteria and procedures, students should contact the Urban and Regional Planning program in the School of Planning, Design and Construction.

* 1. Under the heading **Requirements for the Bachelor of Science Degree in Urban and Regional Planning** make the following changes:
     1. In item 2., replace paragraph three with the following:

The STEM requirement for the College of Social Science is met by completion of 12 credits from 3. c. below.

* + 1. In item 3. a., delete the following course:

UP 400 Special Topics in Urban Planning 3

* + 1. In item 3. a., change the total credits from ‘35’ to ‘32’.
    2. Replace item 3. b. with the following:

Complete 6 credits of 400-level Urban and Regional Planning elective course work. Courses from 3. a. cannot be used to fulfill this requirement.

* + 1. Replace item 3. c. with the following:

Complete 12 credits in Science, Technology, Engineering, and Mathematics (STEM) courses from the following list of courses. Fulfillment of this requirement also meets the

College of Social Science STEM Graduation Requirement for the Bachelor of Science degree.

|  |  |  |  |
| --- | --- | --- | --- |
| ANP | 203 | Introduction to Archaeology | 3 |
| ANP | 206 | Introduction Physical Anthropology | 3 |
| CSS | 101 | Introduction to Crop Science | 3 |
| CSS | 101L | Introduction to Crop Science Laboratory | 1 |
| CSS | 210 | Fundamentals of Soil Science | 3 |
| CSUS | 200 | Introduction to Sustainability | 3 |
| ENT | 205 | Pests, Society and Environment | 3 |
| EPI | 390 | Disease in Society: Introduction to Epidemiology and |  |
|  |  | Public Health | 4 |
| FW | 110 | Conservation and Management of Marine Resources | 3 |
| GEO | 203 | Introduction to Meteorology | 3 |
| GEO | 206 | Physical Geography | 3 |
| GLG | 201 | The Dynamic Earth | 4 |
| PDC | 403 | Introduction to Domicology: Sustainable Built Environment | 3 |

* + 1. Delete item 3. d.

Effective Fall 2023.

1. Change the requirements for the **Doctor of Philosophy** degree **in Political Science** in the Department of Political Science. The University Committee on Graduate Studies (UCGS) approved this request at its January 23, 2023 meeting.
   1. Under the heading **Admission** delete paragraph two:

Applicants must take the Graduate Record Examination (GRE) General Test. Official results from this examination should be sent to the Department of Political Science.

Effective Fall 2023.

## COLLEGE OF VETERINARY MEDICINE

1. Change the requirements for the **Doctor of Veterinary Medicine** degree in **Veterinary Medicine** in the College of Veterinary Medicine. The University Committee on Graduate Studies (UCGS) approved this request at its January 23, 2023 meeting.
   1. Under the heading **Admission to the Professional Program in Veterinary Medicine** make the following changes:
      1. Replace item 2. with the following:

Multiple Mini Interviews by faculty, staff, alumni, and other vested individuals trained to assess for the qualities considered important for positive professional outcomes (by invitation).

* + 1. Delete the following paragraph:

All science prerequisite courses must be completed at the time of application with a minimum grade of 2.0 in each course and a minimum science prerequisite GPA of 3.0. Up to 50% of the science prerequisite requirements may be satisfied with binary grading.

General education requirements must be completed by July 1 prior to fall matriculation. Each course must receive a minimum grade of 2.0.

Add the following paragraph:

All science prerequisite requirements must be completed by students prior to the application deadline each year. All science prerequisite courses must be completed with a minimum grade of 2.0 on a 4.0 scale in each course and a minimum science prerequisite

GPA of 3.0. Up to 50% of the science prerequisite requirements may be satisfied with binary grading. General education requirements must be completed by July 1 prior to fall matriculation. Each course must receive a minimum grade of 2.0.

* + 1. Under the heading **Science Prerequisite Courses** add: Physiology

Remove ‘Physiology’ from the Upper Level Biology Elective category.

* + 1. Under the heading **General Education Requirements**, for *Arts and Humanities* and

*Social Science*, list the requirement as two courses for each category.

Effective Summer 2023.

# PART II - NEW COURSES

## DEPARTMENT OF BIOMEDICAL ENGINEERING

BME 870 Stem Cell Engineering

Fall of odd years. 3(3-0) RB: A basic knowledge of cell biology and molecular biology or approval of department. R: Open to seniors or graduate students.

Introduction to stem cell biology, and stem cell engineering approaches, including stem cell research, basic developmental biology and developmental signaling pathways, cell reprogramming, stem cell engineering approaches for translational applications, and novel strategies and reviews of current literature.

Effective Fall Semester 2023

## DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

CE 843 Advanced Highway Design and Traffic Control

Spring of even years. 3(3-0) R: Open to graduate students in the College of Engineering.

Highway design policies and practices. Design and performance aspects of freeways and interchanges. Traffic control and signalization strategies.

Effective Spring Semester 2024

## DEPARTMENT OF ENGLISH

FLM 484 Advanced Topics in Screenwriting

Spring of every year. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. P: FLM 334 or FLM 434

Advanced workshop targeting specific topics in screenwriting. Reading and analysis of published screenplays. Attention to film production.

Effective Fall Semester 2023

## DEPARTMENT OF EPIDEMIOLOGY AND BIOSTATISTICS

EPI 495 Epidemiology and Behavioral Health in Society

Summer of every year. 3(3-0) A student may earn a maximum of 12 credits in all enrollments for this course. R: Open to juniors or seniors or graduate students.

REINSTATEMENT Introduction to epidemiology as applied to behavioral health issues in contemporary society. Life-span developmental perspective from preterm births to late life Alzheimer's disease and the dementias.

Effective Summer Semester 2023

## DEPARTMENT OF FOOD SCIENCE AND HUMAN NUTRITION

HNF 493 Professional Internship in Human Nutrition

Fall of every year. Spring of every year. Summer of every year. 1 to 10 credits. A student may earn a maximum of 10 credits in all enrollments for this course. P: HNF 250 and (HNF 255 or concurrently) R: Approval of department; application required. A student may earn a maximum of 10 credits in all enrollments for any or all of these courses: ANR 493, ANS 493, CMP 493, CSS 493, CSUS 493, FSC 493, FIM 493, FW 493, HNF 493, HRT 493, PKG 493, and PLP 493.

Supervised professional experiences in agencies and businesses related to human nutrition.

Effective Summer Semester 2023

HNF 499 Undergraduate Research in Human Nutrition

Fall of every year. Spring of every year. Summer of every year. 1 to 10 credits. A student may earn a maximum of 10 credits in all enrollments for this course. P: HNF 250 and (HNF 255 or concurrently) R: Approval of department; application required. A student may earn a maximum of 10 credits in all enrollments for any or all of these courses: BMB 499, CSS 499, FSC 499, HNF, 499, MMG 499, NSC 499, PKG 499, and PSL 499.

Undergraduate research experience is intended to give each student practical experience in the field of nutrition and health.

Effective Summer Semester 2023

## DEPARTMENT OF KINESIOLOGY

KIN 190 Frontiers in Applied Health Sciences

Fall of every year. Spring of every year. 1(1-0)

Introduction to applied health science related fields including an overview of careers with additional focus on strategies to achieve academic success and career goals.

Request the use of the Pass-No Grade (P-N) system. Effective Fall Semester 2023

KIN 210 Principles of Exercise Physiology

Fall of every year. Spring of every year. 3(2-2)

Basic principles, concepts, and issues surrounding exercise physiology with a focus on cardiovascular, respiratory, musculoskeletal, and metabolic systems.

SA: KIN 121

Effective Fall Semester 2023

KIN 220 Principles of Sports Medicine

Fall of every year. Spring of every year. 3(2-2) Not open to students with credit in KIN 320. Basic principles, concepts, and issues surrounding sports medicine with a focus on trauma prevention, initial prehospital assessment and care, and professional aspects of healthcare.

Effective Fall Semester 2023

KIN 240 Principles of Biobehavioral Health

Fall of every year. Spring of every year. 3(2-2)

Basic principles, concepts, and issues surrounding the interaction among biological, behavioral, psychological, sociocultural, and environmental variables that influence health. SA: KIN 173

Effective Fall Semester 2023

KIN 410 Advanced Exercise Physiology

Fall of every year. Spring of every year. 3(2-2) P: KIN 210 and KIN 310 or approval of department R: Not open to freshmen.

Advanced concepts, principles, and techniques in exercise physiology with a focus on metabolic, muscular, and cardiovascular responses to various types of exercise.

Evaluation, measurement, and program development to promote health and well-being. Effective Fall Semester 2023

KIN 440 Advanced Sport Psychology

Fall of every year. Spring of every year. 3(3-0) P: KIN 240 and KIN 345 or approval of department R: Not open to freshmen.

Advanced concepts, principles, and techniques in sport psychology with a focus on performance in sport, team dynamics, communication, and psychological skill development.

Effective Fall Semester 2023

KIN 461 Neural Control of Human Movement

Fall of every year. Spring of every year. 3(2-2) P: (KIN 251 and KIN 360) or NEU 301 R: Not open to freshmen.

Advanced concepts, principles, and techniques in understanding the neural control of human movement. Focus on structure-function relationships in healthy humans, and individuals with movement disorders.

Effective Fall Semester 2023

## MSU COLLEGE OF LAW

LAW 558W Healthcare Compliance

On Demand. 0 to 6 credits. R: Open to Law students or law advanced students in the MSU College of Law.

History, necessity, and construction of healthcare compliance programs, the key elements required to make an effective program, and the prominent areas of healthcare law and regulation managed by these programs.

Effective Spring Semester 2023

LAW 587D Mediation Advocacy

On Demand. 2 to 4 credits. R: Open to students in the MSU College of Law.

REINSTATEMENT This course is interactive. It covers types of mediation, whether to mediate, and mediation agreements.

SA: DCL 555

Effective Spring Semester 2023

## DEPARTMENT OF LINGUISTICS, LANGUAGES AND CULTURES

GRM 861 Introduction to German Applied Linguistics

Spring of every year. 3(3-0) Not open to students with credit in GRM 461.

Overview of applied linguistic topics in German. Issues of contemporary language use, the connection between culture and language. Overview of second language acquisition principles. Introduction to effective pedagogical techniques for language and culture learning.

Effective Spring Semester 2024

RUS 241 Russian and Slavic Folklore, Fairy Tales, and Folk Traditions Spring of odd years. 3(3-0)

Introduction to folklore studies through the lens of Slavic folklore. Folk religion and beliefs, superstitions, folk speech, proverbs, jokes, fairy tales, folk music, folk costume, folk dance, folk medicine, arts and crafts, and modern forms of folklore such as memes. Course will be conducted in English.

Effective Fall Semester 2023

## DEPARTMENT OF MEDIA AND INFORMATION

MI 235 Introduction to Video Game Audio

Fall of every year. 3(3-0) R: Open to undergraduate students in the Department of Media and Information or in the College of Music.

Investigation of video games and the sounds that bring virtual worlds to life. Develop critical listening skills and a vocabulary for discussion of music and sound effects throughout video game history.

Effective Fall Semester 2023

## COLLEGE OF OSTEOPATHIC MEDICINE

OST 510 Clinical Human Gross Anatomy

Summer of every year. 6(4-4) R: Open to graduate-professional students in the College of Osteopathic Medicine.

Introduction to macroscopic human structure, landmarks, and spatial relationships using laboratory prosections, multimedia, and clinical correlations. Correct usage of clinical- anatomical language.

Request the use of the Pass-No Grade (P-N) system. Effective Summer Semester 2023

OST 520 Foundations of Biomedical Science for Osteopathic Medicine

Fall of every year. 8(19-1) R: Open to graduate-professional students in the College of Osteopathic Medicine.

Foundational principles and mechanisms of biomedical sciences and their application to osteopathic medicine.

Request the use of the Pass-No Grade (P-N) system. Effective Fall Semester 2023

OST 521 Musculoskeletal System

Fall of every year. 4(8-2) R: Open to graduate-professional students in the College of Osteopathic Medicine.

Structure, function, and conditions of the musculoskeletal system as applied to osteopathic medicine.

Request the use of the Pass-No Grade (P-N) system. Effective Fall Semester 2023

OST 522 Hematology, Oncology and Infectious Diseases

Fall of every year. 3(3-0) R: Open to graduate-professional students in the College of Osteopathic Medicine.

Systems biology approach to principles of hematology, oncology, and response to infection.

Request the use of the Pass-No Grade (P-N) system. Effective Fall Semester 2023

OST 523 Neurological System

Spring of every year. 10(8-4) R: Open to graduate-professional students in the College of Osteopathic Medicine.

Neurological system with integration of basic science and clinical neurology and ophthalmology. Clinical approach to neuromusculoskeletal conditions from osteopathic perspective.

Request the use of the Pass-No Grade (P-N) system. Effective Spring Semester 2024

OST 524 Psychopathology

Spring of every year. 2(2-0) R: Open to graduate-professional students in the College of Osteopathic Medicine.

Systems biology approach to the behavioral system. Normal structure and function and pathologies of the mind to include integration of basic science and clinical information. Request the use of the Pass-No Grade (P-N) system.

Effective Spring Semester 2024

OST 525 Genitourinary System

Spring of every year. 4(4-0) R: Open to graduate-professional students in the College of Osteopathic Medicine.

Structure and function of the genitourinary system. Diagnosis and management of conditions of the kidney, urinary tract, and genitalia. Integration of basic science and clinical information related to the genitourinary system.

Request the use of the Pass-No Grade (P-N) system. Effective Spring Semester 2024

OST 526 Endocrine System

Spring of every year. 3(3-0) R: Open to graduate-professional students in the College of Osteopathic Medicine.

Multidisciplinary approach to endocrinology. Normal endocrine structure and function; principles of diagnosis and management of endocrine disorders. Integration of basic science and clinical information.

Request the use of the Pass-No Grade (P-N) system. Effective Spring Semester 2024

OST 531 Reproduction, Development, and Sexuality

Summer of every year. 3(3-0) R: Open to graduate-professional students in the College of Osteopathic Medicine.

Anatomy, embryology, and physiology of reproduction and human development, including pregnancy and obstetrical care. Review sex and gender, sexuality, and care of LGBTQIA+ patients.

Request the use of the Pass-No Grade (P-N) system. Effective Summer Semester 2024

OST 532 Integumentary System

Summer of every year. 2(2-0) R: Open to graduate-professional students in the College of Osteopathic Medicine.

Systems biology approach to the integumentary system, to include the skin and its epidermal derivatives. Normal structure and function and pathologies. Integration of basic science and clinical information.

Request the use of the Pass-No Grade (P-N) system. Effective Summer Semester 2024

OST 533 Gastrointestinal System

Summer of every year. 6(5-2) R: Open to graduate-professional students in the College of Osteopathic Medicine.

Systems biology approach to the entire digestive track, including accessory organs of digestion. Normal structure and function and pathologies. Integration of basic science and clinical information.

Request the use of the Pass-No Grade (P-N) system. Effective Summer Semester 2024

OST 534 Cardiovascular System

Fall of every year. 8(7-2) R: Open to graduate-professional students in the College of Osteopathic Medicine.

Systems biology approach to the cardiovascular system, including the heart and vasculature throughout the body. Normal structure and function and pathologies. Integration of basic science and clinical information.

Request the use of the Pass-No Grade (P-N) system. Effective Fall Semester 2024

OST 535 Respiratory System

Fall of every year. 7(5-4) R: Open to graduate-professional students in the College of Osteopathic Medicine.

Systems biology approach to the entire respiratory system. Normal structure and function and pathologies. Integration of basic science and clinical information.

Request the use of the Pass-No Grade (P-N) system. Effective Fall Semester 2024

OST 550 Introduction to Osteopathic Medicine and Clinical Skills

Summer of every year. 2(2-2) R: Open to graduate-professional students in the College of Osteopathic Medicine.

Introduction to the history and philosophy of osteopathic medicine and practice of clinical medicine.

Request the use of the Pass-No Grade (P-N) system. Effective Summer Semester 2023

OST 561 Ambulatory Care Capstone

Spring of every year. 3(8-1) R: Open to graduate-professional students in the College of Osteopathic Medicine.

Foundations of healthcare systems, including medical economics, informatics, patient safety, and healthcare policy.

Request the use of the Pass-No Grade (P-N) system. Effective Spring Semester 2025

OST 562 Hospital Care Capstone

Spring of every year. 3(8-1) R: Open to graduate-professional students in the College of Osteopathic Medicine.

Application of medical knowledge to patient care in hospital setting. Request the use of the Pass-No Grade (P-N) system.

Effective Spring Semester 2025

OST 563 Health Systems Science Capstone

Spring of every year. 2(8-1) R: Open to graduate-professional students in the College of Osteopathic Medicine.

Foundations of healthcare systems, including medical economics, informatics, patient safety, and healthcare policy.

Request the use of the Pass-No Grade (P-N) system. Effective Spring Semester 2025

OST 899 Master's Thesis Research

Fall of every year. Spring of every year. Summer of every year. 4 credits. R: Open to osteopathic medicine students. Approval of college.

Master's thesis 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 3 semesters after the end of the semester of enrollment.

Effective Fall Semester 2023

# PART III – COURSE CHANGES

## DEPARTMENT OF ADVERTISING AND PUBLIC RELATIONS

ADV 432 Digital Media Planning and Buying

Fall of every year. ~~Sprin~~g ~~o~~f ev~~er~~y year. 3(3-0) P: ADV 205 and MKT 327 R: Open to students in the Department of Advertising and Public Relations.

Media planning and buying for web-based business applications. Budget-building, media mix recommendations, performance analysis, and support for business decisions.

~~Effectiv~~e Spring ~~Semeste~~r 2022 Effective Fall Semester 2023

ADV 433 Internet Video Promotion Strategy

Fa~~l~~l ~~o~~f ~~ever~~y year. Spring of every year. 3(3-0) P: ADV 205 and MKT 327

Promotional video production focusing on brands or companies. Use of metrics and analytical tools to determine impact of promotional video. Video distribution strategies. ~~Effectiv~~e Spring ~~Semeste~~r 2022 Effective Fall Semester 2023

## BIOLOGICAL SCIENCE PROGRAM

BS 162 Organismal and Population Biology

Fall of every year. Spring of every year. Summer of every year. 3(3-0) Interdep~~artmenta~~l ~~wit~~h Plant Biology P: BS 161 or BS 181H or LB 145 Not open to students with credit in BS 182H or LB 144.

Biological diversity and organismal biology. Principles of evolution, transmission genetics, population biology, community structure, ecology.

SA: BS 110, BS 148H

~~Effectiv~~e ~~Summe~~r ~~Semeste~~r 2021 Effective Summer Semester 2023

BS 172 Organismal and Population Biology Laboratory

Fall of every year. Spring of every year. Summer of every year. 2(1-3) Interdep~~artmenta~~l ~~wit~~h Plant Biology P: (BS 162 or concurrently) or (BS 182H or concurrently) Not open to students with credit in BS 192H or LB 144.

Nature and process of organismal biology including experimental design, statistical methods, hypothesis testing in genetics, ecology, and evolution.

SA: BS 110, BS 158H

~~Effectiv~~e ~~Summe~~r ~~Semeste~~r 2022 Effective Summer Semester 2023

## DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

ENE 480 Environmental Measurements Laboratory

Fall of every year. 2(1-3) Interdepartmental with Civil Engineering. ~~P~~: ~~(CE~~M ~~16~~1 ~~o~~r ~~CE~~M ~~185~~H or ~~L~~B 171~~L~~) and ~~EN~~E ~~28~~0 a~~n~~d (C~~E~~M ~~14~~2 ~~o~~r CEM ~~15~~2 ~~o~~r CEM ~~182~~H ~~o~~r ~~L~~B ~~172~~) a~~n~~d ((ENE ~~48~~1 or

concurre~~ntly~~) or ~~(EN~~E ~~48~~3 ~~o~~r concurre~~ntly)~~) ~~an~~d Completion ~~o~~f Ti~~e~~r I Writi~~n~~g Requirement P: (CEM 161 or CEM 185H or LB 171L) and ENE 280 and (CEM 142 or CEM 152 or CEM 182H or LB 172)

and ((ENE 481 or concurrently) or (ENE 483 or concurrently)) and CE 372 and CE 321 R: Open to juniors or seniors or graduate students in the College of Engineering.

Basic chemical and microbiological methods used in the analysis of environmental media. Laboratory safety, quality assurance, quality control, and statistics used in laboratory analysis.

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2021 Effective Fall Semester 2023

## DEPARTMENT OF COMMUNICATION

COM 899 Master's Thesis Research

Fall of every year. Spring of every year. Summer of every year. 1 to 6 credits. A student may earn a maximum of 14 credits in all enrollments for this course. ~~R~~: ~~Ope~~n ~~onl~~y ~~t~~o gradu~~at~~e students ~~i~~n the Department ~~o~~f Communication. R: Open to master's students in the or in the Communication Major.

Master's thesis research.

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

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 1992 Effective Summer Semester 2023

## DEPARTMENT OF COMMUNITY SUSTAINABILITY

CSUS 223A Seminar in Leadership Theory I - Agriculture, Food and Natural Resources Education Spring of every year. 1(1-0)

Introductory leadership theory in formal and nonformal agriculture, food and natural resources education.

DELETE COURSE

Effective Fall Semester 2023

## COLLEGE OF ENGINEERING

EGR 100 Introduction to Engineering Design

Fall of every year. Spring of every year. Summer of every year. 2(1-2) ~~P~~: ~~((MT~~H ~~11~~6 or concurre~~ntly~~) or (MTH ~~13~~2 ~~o~~r concurre~~ntly~~) or (MTH ~~152~~H or concurre~~ntly~~) ~~o~~r ~~(L~~B ~~11~~7 or concurre~~ntly~~) or ~~(L~~B ~~11~~8 ~~o~~r co~~ncurrently)~~) and (W~~R~~A ~~100~~4 ~~o~~r designated ~~scor~~e ~~o~~n English Placement ~~tes~~t ) P: (MTH 114 or concurrently) or (MTH 116 or concurrently) or (MTH 132 or concurrently) or (MTH 152H or concurrently) or (LB 117 or concurrently) or (LB 118 or concurrently) ~~R~~: ~~Ope~~n ~~t~~o ~~student~~s ~~i~~n ~~th~~e College ~~o~~f Engine~~erin~~g ~~o~~r ~~i~~n ~~th~~e Entrepreneursh~~i~~p a~~n~~d Innova~~tio~~n Minor ~~an~~d o~~pe~~n ~~t~~o stude~~nt~~s ~~i~~n ~~th~~e Ly~~ma~~n Brig~~g~~s College. R: Open to students in the College of Engineering or in the Lyman Briggs College and open to students in the Entrepreneurship and Innovation Minor.

Engineering design process as modeled by team-based, interdisciplinary design projects. Roles of engineers and the contributions of engineering in society. Project management, creativity and design of products and processes to specified outcomes under specified constraints. Introduction to computing tools and physical equipment in support of engineering design. Engineering ethics. Oral and written technical communications.

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2019 Effective Fall Semester 2023

## DEPARTMENT OF FAMILY AND COMMUNITY MEDICINE

FCM 621 Family Medicine Specialty Rotation

Fall of every year. Spring of every year. Summer of every year. 1 to 24 credits. A ~~studen~~t ~~ma~~y earn a ~~maximu~~m ~~o~~f ~~5~~1 cred~~it~~s ~~i~~n ~~al~~l enrollm~~ent~~s for th~~i~~s course. A student may earn a maximum of 30 credits in all enrollments for this course. R: Open to graduate-professional students in the College of Osteopathic Medicine.

Clinical exposure in osteopathic family medicine subspecialty rotations. Proficiency in motor skills and aptitudes; comprehension of concepts and principles; patient evaluation; diagnosis; management; therapy.

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.

~~Effectiv~~e ~~Summe~~r ~~Semeste~~r 2018 Effective Summer Semester 2023

## DEPARTMENT OF FOOD SCIENCE AND HUMAN NUTRITION

FSC 493 Professional Internship in Food Science

Fall of every year. Spring of every year. Summer of every year. 1 ~~t~~o 6 credits. 1 to 10 credits. ~~A~~ ~~studen~~t ~~ma~~y ea~~r~~n a maximum ~~o~~f 6 ~~credit~~s ~~i~~n ~~al~~l enrollments ~~fo~~r ~~thi~~s course. A student may earn a maximum of 10 credits in all enrollments for this course. ~~R~~: ~~Ope~~n ~~t~~o juniors ~~o~~r ~~senior~~s in ~~th~~e Food Science ~~major~~. ~~Approva~~l ~~o~~f departmen~~t~~; application required. R: Approval of department; application required. A student may earn a maximum of 10 credits in all enrollments for any or all of these courses: ANR 493, ANS 493, CMP 493, CSS 493, CSUS 493, FSC 493, FIM 493, FW 493, HNF 493, HRT 493, PKG 493, and PLP 493.

Supervised professional experiences in agencies and businesses related to food science. Requ~~es~~t ~~th~~e use ~~o~~f ~~th~~e ~~Pass-N~~o ~~Grad~~e (P-N) system.

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2014 Effective Summer Semester 2023

FSC 842 Foodb~~orn~~e Diseases Food Safety Microbiology

Spring of odd years. 3(3-0) RB: FSC ~~44~~0 ~~o~~r FSC 840 RB: FSC 440 or MMG 301

Epidemiol~~ogy~~, isolatio~~n~~, characterization, clin~~ica~~l manifestati~~ons~~, pathogeni~~city~~, incidence ~~an~~d co~~ntro~~l ~~o~~f bacteri~~al~~, paras~~iti~~c ~~an~~d viral foodborne pathoge~~n~~s ~~an~~d associated ~~toxins~~. In- depth evaluation of microbiological food safety concerns with an emphasis on molecular tools for detecting, tracking, and controlling pathogens in the food supply.

~~Effectiv~~e ~~Summe~~r ~~Semeste~~r 2001 Effective Spring Semester 2024

## DEPARTMENT OF GEOGRAPHY, ENVIRONMENT, AND SPATIAL SCIENCES

GEO 410 Geography of Food and Agriculture

Fa~~l~~l ~~o~~f ~~eve~~n years. Fall of odd years. 3(3-0) RB: GEO 113 or GEO 151 or GEO 204 or GEO 206 Spatial patterns of contemporary global agriculture and food systems. Human- environment geography of select agricultural practices and food systems. Effects of agricultural practices on natural and human resources.

~~Effectiv~~e Spring ~~Semeste~~r 2023 Effective Fall Semester 2023

## JAMES MADISON COLLEGE

MC 111 ~~Identit~~y ~~an~~d Co~~mmunity~~: ~~A~~n Approa~~c~~h ~~t~~o Wr~~itin~~g I Identity and Community: An Approach to Writing

Fall of every year. 4(4-0) R: Open to undergraduate students in the James Madison College or approval of college.

Identity and community in American and cross-cultural contexts. Influences of family, education, work, religion, gender, race, class and/or sexuality on identity and community. Critical reading and analytical writing and public speaking.

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2014 Effective Fall Semester 2023

## DEPARTMENT OF KINESIOLOGY

KIN 121 The Healthy Lifestyle

Fall of every year. Spring of every year. Summer of every year. 3(2-2) R: Open to undergraduate students in the Athletic Training Major or in the Health Promotion Minor or in the Kinesiology major.

Cardiovascular risk factors, lifestyle habits, and aerobic capacities and their relationship to optimal health and longevity. Individual physical activity required as part of the course.

SA: PES 121 DELETE COURSE

Effective Summer Semester 2023

KIN 125 First Aid and Personal Safety

Fall of every year. Spring of every year. Summer of every year. 3(3-0)

Knowledge and application of first aid concepts relating to respiratory and cardiopulmonary disorders, shock, wounds, burns, fractures, drug poisoning, childbirth, litigation. Preventing trauma by recognizing and avoiding safety hazards.

SA: PES 125 DELETE COURSE

Effective Summer Semester 2023

KIN 126 Introduction to Athletic Injury

Fall of every year. Spring of every year. 3(3-0) R: Open to undergraduate students in the Kinesiology major.

Basic knowledge for the recognition and prevention of athletic injuries. DELETE COURSE

Effective Summer Semester 2023

KIN 173 Foundations of Kinesiology

Fall of every year. Spring of every year. Summer of every year. 3(2-2) R: Open to undergraduate students in the Athletic Training Major or in the Coaching Minor or in the Kinesiology major.

Kinesiology as a disciplinary major. Subdisciplines and professions. Historical, professional and philosophical perspectives.

SA: KIN 370, KIN 170 DELETE COURSE

Effective Summer Semester 2023

KIN 174 Human Medical Terminology

Fall of every year. Spring of every year. Summ~~e~~r ~~o~~f ~~ever~~y year. ~~2(2-0)~~ 3(3-0) ~~RB~~: ~~KI~~N 173 RB: KIN 220 R: Open to undergraduate students in the Department of Kinesiology.

Foundational medical terminology with a focus on cardiovascular, pulmonary, musculoskeletal and neurological systems. Common prefixes, suffixes and root words organized by body system, structures and functions, diagnostic procedures and treatments.

~~Effectiv~~e Spring ~~Semeste~~r 2021 Effective Fall Semester 2023

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.

DELETE COURSE

Effective Summer Semester 2023

KIN 250 Measurement in Kinesiology

Fall of every year. Spring of every year. Summer of every year. 3(3-0) R: Open to undergraduate students in the Athletic Training Major or in the Kinesiology major.

Methods and materials for measurement and evaluation. Motor skills, physical fitness, knowledge, and attitudes associated with physical activity.

SA: PES 250 DELETE COURSE

Effective Summer Semester 2023

KIN 310 Physiological Bases of Physical Activity

Fall of every year. Spring of every year. 3(3-0) 3(2-2) ~~P~~: ~~{(PS~~L ~~43~~1 a~~n~~d ~~PS~~L ~~432~~) ~~o~~r ~~(PS~~L 2~~5~~0 or ~~PS~~L ~~310)~~} ~~an~~d ~~(KI~~N ~~21~~6 ~~o~~r ANTR ~~350~~) and ~~(CE~~M ~~14~~1 a~~n~~d ~~KI~~N 173) P: KIN 210 or approval of department RB: KIN 216 or ANTR 350 ~~R~~: ~~Ope~~n ~~t~~o students ~~i~~n ~~th~~e ~~Athleti~~c Tr~~ainin~~g Ma~~jo~~r ~~o~~r ~~i~~n the Kinesiol~~og~~y major. R: Open to students in the Department of Kinesiology.

Acute and chronic effects of exercise on various body systems. Principles of training, exercise prescription, and the role of physical activity in health and disease.

SA: PES 310

~~Effectiv~~e ~~Summe~~r ~~Semeste~~r 2019 Effective Fall Semester 2023

KIN 330 Biomechanics of Physical Activity

Fall of every year. Spring of every year. Summer of every year. 3(2-2) ~~P~~: ~~(KI~~N ~~17~~3 and ~~KI~~N 251) ~~an~~d ~~(KI~~N 216 or ANTR 350) P: KIN 251 RB: KIN 216 or ANTR 350 ~~R~~: Open ~~t~~o undergraduate ~~student~~s ~~i~~n the ~~Athleti~~c Training ~~Majo~~r ~~o~~r ~~i~~n the Kinesiol~~og~~y major. R: Open to undergraduate students in the Department of Kinesiology.

Biomechanical analysis of human movement based upon musculoskeletal structure and function. Mechanical principles.

~~SA~~: ~~PE~~S 330

~~Effectiv~~e Spring ~~Semeste~~r 2017 Effective Fall Semester 2023

KIN 345 Sport and Exercise Psychology (W)

Fall of every year. Spring of every year. Summ~~e~~r ~~o~~f ~~ever~~y year. ~~3(3-0)~~ 3(2-2) ~~P~~: ~~(KI~~N ~~173~~) and completi~~o~~n ~~o~~f Ti~~e~~r I ~~writin~~g requirement P: (KIN 240) and completion of Tier I writing requirement R: ~~Ope~~n ~~t~~o juni~~or~~s ~~o~~r ~~senior~~s in ~~th~~e ~~Athleti~~c Traini~~n~~g Ma~~jo~~r ~~o~~r in ~~th~~e Kinesiolo~~g~~y ~~majo~~r ~~o~~r ~~i~~n the Coaching Minor.

Psychological ~~effect~~s ~~o~~n spor~~t~~, ~~moto~~r ~~performance~~, and ex~~ercis~~e behavior. ~~Influenc~~e of ~~spor~~t ~~an~~d exer~~cis~~e ~~o~~n psychological developm~~ent~~. Theoretical, conceptual, and practical issues related to the psychology of exercise behaviors.

~~SA~~: ~~KI~~N 340

~~Effectiv~~e Spring ~~Semeste~~r 2017 Effective Fall Semester 2023

KIN 365 Sensorimotor Control

Fall of every year. Spring of every year. 3(2-1) P: KIN 216 or ANTR 350 RB: KIN 330 R: Open to undergraduate students in the Athletic Training major or in the Kinesiology major.

Principles of sensorimotor control, coordination, and learning of human movement, from activities of daily living to the performance of elite athletes.

DELETE COURSE

Effective Summer Semester 2023

KIN 371 Introduction to Research Methods in Kinesiology

Fall of every year. Spring of every year. 3(3-0) 3(2-2) ~~P~~: ~~(KI~~N ~~17~~3 and ~~KI~~N 2~~50~~) and ~~(KI~~N ~~21~~6 or ANTR 350) P: KIN 210 and KIN 240 RB: KIN 216 or ANTR 350 ~~R~~: ~~Ope~~n ~~t~~o undergrad~~uat~~e students ~~in the Athletic Training Major or in the Kinesiology major.~~ R: Open to undergraduate students in the Department of Kinesiology.

Research methods as they apply to Kinesiology, study design, statistics, elements of scientific process, scientific writing.

~~Effectiv~~e Spring ~~Semeste~~r 2017 Effective Fall Semester 2023

KIN 402 Coaching for Strength, Conditioning and Fitness

Summer of every year. 2(2-0) P: KIN 210 or approval of department 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~~: ~~KI~~N 300L

~~Effectiv~~e Spring ~~Semeste~~r 2015 Effective Fall Semester 2023

KIN 411 Laboratory Experiences in Exercise Physiology

Fall of every year. Spring of every year. 2(1-3) P: KIN 310 R: Open to seniors in the Athletic Training major or in the Kinesiology major.

Laboratory techniques for testing and evaluating individuals for aerobic fitness, muscular strength and endurance, body composition and other physiologic responses to exercise. Exercise program development for personal health fitness.

SA: PES 411 DELETE COURSE

Effective Summer Semester 2023

KIN 421 Lower Body Injury Evaluation

Fall of every year. 3(3-0) P: KIN 320 R: Open to students in the Athletic Training Major.

Knowledge and skills needed for evaluating lower body injuries in athletic training. Techniques and tests used for evaluating acute and chronic injuries to the lower body. SA: PES 421

DELETE COURSE

Effective Summer Semester 2023

KIN 422 Rehabilitation of Athletic Injuries

Fall of every year. 3(3-0) P: KIN 320 and KIN 421 and KIN 423 R: Open to students in the Athletic Training Major.

Rehabilitation techniques to manage athletic injuries. Anatomical and neurophysiological bases of techniques. Indications and contraindications of rehabilitation protocols.

SA: PES 422 DELETE COURSE

Effective Summer Semester 2023

KIN 423 Therapeutic Modalities

Fall 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.

DELETE COURSE

Effective Summer Semester 2023

KIN 424 Psychology of Injury

Summer of every year. 3(3-0) P: KIN 220 or approval of department ~~RB~~: ~~Athleti~~c training ~~o~~r sport psychology R: Not open to freshmen.

Psychological aspects of athletic injuries. Sociocultural, mental, emotional, and physical behaviors of patients involved in injury rehabilitation.

~~Effectiv~~e Spring ~~Semeste~~r 2014 Effective Fall Semester 2023

KIN 427 Clinical Rotations in Athletic Training

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. ~~P~~: KIN ~~12~~5 ~~an~~d ~~KI~~N ~~12~~6 and ~~KI~~N ~~12~~7 and ~~KI~~N ~~22~~7 and ~~KI~~N 320 P: KIN 127 and KIN 220 or approval of department ~~R~~: ~~Ope~~n ~~t~~o st~~udent~~s ~~i~~n t~~h~~e ~~Athleti~~c Training major. R: Approval of department.

Knowledge and skills used to manage, evaluate, and rehabilitate orthopedic injuries in various clinical settings including colleges, high schools, and rehabilitation clinics.

~~Effectiv~~e Spring ~~Semeste~~r 2014 Effective Fall Semester 2023

KIN 443 Psychophysiological Aspects of Kinesiology

Fall of every year. Spring of every year. 3(3-0) ~~P~~: ~~KI~~N ~~17~~3 ~~o~~r approv~~a~~l ~~o~~f department P: KIN 240 and KIN 345 or approval of department RB: Basic concepts in kinesiology and psychology ~~R~~: Not open ~~t~~o ~~freshme~~n ~~o~~r sophomores. R: Not open to freshmen.

Interaction between psychological processes and physiological parameters in exercise science. Utilization of psychophysiological techniques for assessing psychological consequences of exercise and physical activity engagement.

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2014 Effective Fall Semester 2023

KIN 445 Sport and Physical Activity in Society (W)

Fall of every year. Spring of every year. 3(3-0) ~~P~~: ~~(KI~~N ~~173~~) ~~an~~d completi~~o~~n ~~o~~f Ti~~e~~r I writing requirement P: (KIN 240 and KIN 345) and completion of Tier I writing requirement ~~R~~: ~~Ope~~n to juni~~or~~s ~~o~~r seniors ~~i~~n ~~th~~e Kinesio~~log~~y ma~~jo~~r and open ~~t~~o grad~~uat~~e stude~~nt~~s in ~~th~~e Depa~~rtmen~~t of Kinesiology. R: Not open to freshmen.

Sociocultural context of and social practices in sport and physical activity. ~~SA~~: ~~PE~~S 445

~~Effectiv~~e ~~Summe~~r ~~Semeste~~r 2021 Effective Fall Semester 2023

KIN 465 Adapted Physical Activity

Fall of every year. Spring of every year. 3(2-2) ~~P~~: ~~KI~~N 173 P: KIN 240 or approval of department R: ~~Ope~~n ~~t~~o undergrad~~uat~~e studen~~t~~s ~~i~~n t~~h~~e Athlet~~i~~c Tr~~ainin~~g Major ~~o~~r ~~i~~n ~~th~~e Kinesiol~~og~~y major. R: Open to undergraduate students in the Department of Kinesiology.

Teaching and coaching physical activities for persons with disabilities. SA: PES 465

~~Effectiv~~e Spring ~~Semeste~~r 2017 Effective Fall Semester 2023

KIN 492 Internship: Non-Physiologically Based

Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P: KIN 190 and KIN 240 or approval of department RB: Completion ~~o~~f non-physiologic~~all~~y bas~~e~~d co~~gnate~~: Ad~~apte~~d ~~Physica~~l Activity, Administrati~~on~~, Biomech~~anics~~, Communication, ~~Growt~~h ~~an~~d ~~Moto~~r Developm~~ent~~, ~~Orthotic~~s and ~~Prosthetics, and Psychological Aspects. R: Open to seniors in the Kinesiology major. Approval of~~ department. R: Not open to freshmen. Approval of department. ~~No~~t open ~~t~~o ~~student~~s wi~~t~~h ~~credi~~t in ~~KIN 493.~~

Professional internship in kinesiology under faculty supervision. Students are involved in community and corporate internships not including physiological testing of patients/clients. ~~Effective Spring Semester 2013~~ Effective Fall Semester 2023

KIN 493 Internship: Physiologically Based

Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. ~~P~~: ~~KI~~N ~~41~~1 ~~o~~r concurrently P: KIN 190 and KIN 210 or approval of department RB: Completion of one of the physiologically based cognates. ~~R~~: ~~Ope~~n ~~t~~o seni~~or~~s ~~i~~n ~~th~~e Kinesiology ~~major~~. Approv~~a~~l ~~o~~f department. R: Not open to freshmen.

Approval of department. ~~No~~t open ~~t~~o studen~~t~~s ~~wit~~h ~~credi~~t ~~i~~n ~~KI~~N 492.

Professional internship in kinesiology under faculty supervision. Students are involved in clinical, rehabilitation, and corporate programs.

~~Effectiv~~e Spring ~~Semeste~~r 2014 Effective Fall Semester 2023

KIN 496 Internship: Athletic Training-Based

Fall of every year. Spring of every year. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. ~~P~~: ~~KI~~N ~~12~~5 ~~an~~d KIN ~~12~~6 and ~~KI~~N 127 P: KIN 190 and KIN 220 or approval of department ~~R~~: ~~Ope~~n ~~t~~o seni~~or~~s in t~~h~~e Depa~~rtmen~~t ~~o~~f Kinesiol~~ogy~~. Approval of department. R: Not open to freshmen. Approval of department.

Professional internship in Athletic Training under faculty supervision. Observation and prevention of athletic injury in high school and collegiate athletes.

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2019 Effective Fall Semester 2023

KIN 810 Metabolic Responses to Exercise

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 DELETE COURSE

Effective Summer Semester 2023

KIN 862 Neural Basis of Human Movement

Spring of every year. 3(3-0)

Neural basis of sensorimotor control, investigating cortical and subcortical structure/function relationships in healthy humans, and in individuals with movement disorders.

DELETE COURSE

Effective Summer Semester 2023

## DEPARTMENT OF LINGUISTICS, LANGUAGES AND CULTURES

GRM 461 Applied Linguistics for German Learners and Teachers

Spring of even years. 3(3-0) P: GRM 301 or GRM 302 or GRM 303 or GRM 304 or GRM 311 or approval of department Not open to students with credit in GRM 861.

Overview of applied linguistic topics relevant for both students of German and future teachers of German. Issues of contemporary language use, the connection between culture and language. Overview of second language acquisition principles. Introduction to effective audiodidactic or pedagogical techniques for language and culture learning.

~~Effectiv~~e Spring ~~Semeste~~r 2023 Effective Spring Semester 2024

ISA 102 Second~~-yea~~r In~~dia~~n ~~an~~d S~~out~~h ~~Asia~~n Langua~~g~~e II First-year Indian and South Asian Language II

Spring of every year. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. RB: Completion of ISA 101 course in language or equivalent language background

Beginning-level speaking, listening comprehension, reading, writing, grammar, gestures, and cultures of an Indian and/or South Asian language. Emphasis on building communication skills.

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2022 Effective Summer Semester 2023

LLT 807 Language Teaching Methods

Spring of every year. 3(3-0) ~~R~~: ~~Ope~~n ~~onl~~y ~~t~~o gradu~~at~~e students ~~i~~n Colle~~g~~e ~~o~~f ~~Art~~s ~~an~~d Letters.

Approaches, methods, and materials for teaching foreign and second languages, including the teaching of listening, speaking, reading, and writing. Selection and evaluation of materials, lesson planning, and management of activities and materials.

SA: ENG 807

~~Effectiv~~e ~~Summe~~r ~~Semeste~~r 2004 Effective Spring Semester 2023

LLT 895 English as a Second Language: Classroom Practices Fall of every year. 3(3-0) ~~C~~: LLT ~~80~~7 concurrently.

Lesson planning, materials development, adapting authentic materials, and microteaching. Classroom management for the teaching of English as a second language.

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2005 Effective Summer Semester 2023

## DEPARTMENT OF MARKETING

MKT 415 International Marketing

Fall of every year. Spring of every year. 3(3-0) ~~P~~: ~~(MK~~T ~~30~~0 ~~o~~r ~~MK~~T ~~327~~) a~~n~~d ~~(MK~~T ~~31~~0 or ~~E~~C 340) P: (MKT 300 or MKT 327) and (IBUS 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

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2019 Effective Spring Semester 2023

## DEPARTMENT OF MEDIA AND INFORMATION

MI 472 Digital Business and Commerce

Spring of every year. 3(2-2) 3(3-0) ~~P~~: ~~((M~~I ~~34~~9 ~~o~~r ~~M~~I ~~361~~) ~~o~~r approv~~a~~l ~~o~~f de~~partment~~) and completi~~o~~n ~~o~~f Ti~~e~~r I ~~writin~~g requirement P: (MI 349 or MI 361) and completion of Tier I writing requirement ~~R~~: ~~Ope~~n ~~t~~o juniors ~~o~~r ~~senior~~s ~~o~~r grad~~uat~~e students. R: Open to juniors or seniors or graduate students in the Department of Media and Information.

Technologies, business models, and organizational and social implications of electronic commerce. Strategies for designing, managing and marketing in digital commerce contexts.

SA: TC 462C, TC 472

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2016 Effective Summer Semester 2023

MI 497 Game Design Studio

Fall of every year. 3(1-4) 3(2-2) P: MI 455 R: Open to students in the Game Design and Development Specialization and open to graduate students in the Department of Media and Information.

Conceptualization, design documentation, planning, prototyping, and distribution of games.

SA: TC 497

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2015 Effective Fall Semester 2023

## COLLEGE OF MUSIC

MUS 210 Song Writing

Fa~~l~~l ~~o~~f ~~od~~d years. Spring of even years. 2(2-2) 2(2-0) RB: Class members should be able to sing and play an accompanying instrument such as guitar or keyboard.

Develop and refine the ability to express oneself through songwriting. ~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2015 Effective Summer Semester 2023

MUS 863 Seminar in the Sociology of Music Education

~~Sprin~~g ~~o~~f ~~od~~d years. Spring of even years. 3(3-0) R: Open to graduate students in the College of Music.

Examinati~~o~~n ~~o~~f sociologic~~a~~l th~~eorie~~s ~~an~~d res~~earc~~h on musical experien~~c~~e a~~n~~d music educ~~ation~~. Topi~~c~~s inclu~~de~~: mu~~sicia~~n a~~n~~d teac~~he~~r id~~entity~~; ~~musi~~c communiti~~e~~s and ensem~~bles~~; mu~~sica~~l experience ~~i~~n and ~~ou~~t ~~o~~f ~~schools~~; e~~quit~~y ~~i~~n ~~musi~~c educ~~ation~~; and the ~~effec~~t ~~o~~f ~~class~~, ~~power~~, a~~n~~d cult~~ur~~e ~~o~~n ~~th~~e music curriculu~~m~~. Develop the ability to analyze the world and music education contexts in a manner that draws on sociological thought to consider various issues in music education through analysis of noted literature.

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2013 Effective Fall Semester 2023

## SCHOOL OF PACKAGING

PKG 450 Automotive and Industrial Packaging

Fall of every year. 2(2-0) 3(3-0) P: MTH 124 or MTH 132 or LB 118 or MTH 152H Returnable and expendable packaging for part shipments to assembly plants, cost justification, service parts packaging, logistical systems, and material handling.

SA: PKG 440

~~Effectiv~~e ~~Summe~~r ~~Semeste~~r 2022 Effective Summer Semester 2023

**DEPARTMENT OF PHYSICAL MEDICINE AND REHABILITATION**

PMR 601 Physical Medicine and Rehabilitation Clerkship

Fall of every year. Spring of every year. Summer of every year. 1 to 18 credits. ~~A student may earn~~ a ~~maximu~~m ~~o~~f ~~2~~4 cred~~it~~s ~~i~~n ~~al~~l enrollm~~ent~~s for th~~i~~s course. A student may earn a maximum of 30 credits in all enrollments for this course. R: Open to graduate-professional students in the College of Osteopathic Medicine.

Physical medicine and rehabilitation inpatient and ambulatory setting clinical experience, didactic sessions, case documentation and presentation, hospital rounds. Strong emphasis on evaluation of neuromusculoskeletal disorders and treatment of function deficits.

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.

~~Effectiv~~e ~~Summe~~r ~~Semeste~~r 2010 Effective Summer Semester 2023

## SCHOOL OF PLANNING, DESIGN AND CONSTRUCTION

UP 314 Methods for Investigation of Urban Systems

Spring of every year. 4(3-2) Interdepartmental with Geography P: UP 353 or concurrently R: Open to students in the Urban and Regional Planning Major.

Models, approaches, and techniques for urban and regional problem analysis, research, program evaluation, and project management. Application of related computer software. ~~Effectiv~~e Spring ~~Semeste~~r 2022 Effective Fall Semester 2023

UP 353 Land Use Planning

Fall of every year. 4(4-0) P: UP 201 RB: ~~PL~~S 100 R: Approval of department.

Principles and techniques of land use planning, including role of social, economic and political systems. Comprehensive planning, neighborhood/sector planning, practical tools for land regulation and environmentally sensitive development.

SA: UP 323

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2013 Effective Fall Semester 2023

UP 365 Planning Law and Ethics (W)

Spring of every year. 4(4-0) ~~P~~: ~~(U~~P ~~201~~) and completi~~o~~n ~~o~~f Ti~~e~~r I ~~writin~~g requirement P: (UP 353) and completion of Tier I writing requirement ~~R~~: O~~pe~~n ~~t~~o juni~~or~~s ~~o~~r seni~~or~~s ~~i~~n ~~th~~e Interdisciplinary ~~Studie~~s in Soci~~a~~l Scie~~nc~~e major ~~o~~r ~~i~~n ~~th~~e Ur~~ba~~n a~~n~~d Regio~~na~~l Plann~~in~~g major. R: Open to students in the Urban and Regional Planning Major.

Legal and ethical concepts and processes involved in planning and development. SA: UP 465

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2013 Effective Fall Semester 2023

UP 400 Special Topics in Urban Planning

Fall of every year. Spring of every year. 2 to 4 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open to students in the School of Planning, Design and Construction or approval of department.

Issues and problems in contemporary urban planning.

~~Effectiv~~e ~~Summe~~r ~~Semeste~~r 2020 Effective Fall Semester 2023

UP 424 Geographic Information Systems and Design Tools for Planning

Fall of every year. Spring of every year. 3(0-3) P: (UP 314 or concurrently) or LA 230 ~~R~~: ~~Ope~~n to ~~student~~s ~~i~~n the ~~Maste~~r ~~i~~n Urban ~~an~~d Region~~a~~l Plann~~in~~g ~~o~~r in ~~th~~e Urban ~~an~~d Region~~a~~l Planning ~~majo~~r ~~o~~r ~~i~~n ~~th~~e Bachel~~o~~r ~~o~~f Landsca~~p~~e Architec~~tur~~e and open ~~t~~o ~~student~~s in ~~th~~e Environmental Design major. R: Open to students in the Urban and Regional Planning Major and open to students in the Bachelor of Landscape Architecture and open to students in the Master in Urban and Regional Planning or in the Environmental Design Major.

Introduction to geographic information systems and its applicability to planning. Methods and techniques for analyzing land use planning issues.

~~Effectiv~~e Spring ~~Semeste~~r 2018 Effective Fall Semester 2023

UP 433 Introduction to Environmental Planning

Fall of every year. 4(4-0) P: UP 353 R: Open to students in the Urban and Regional Planning Major or approval of department.

Nature and magnitude of contemporary environmental issues. Political, social and cultural forces that influence environmental policy and planning. Processes and tools available to planning professionals.

~~Effectiv~~e Spring ~~Semeste~~r 2020 Effective Fall Semester 2023

UP 454 Local Economic Planning

Fall of every year. 3(3-0) P: UP 314 R: Open to students in the Urban and Regional Planning Major or approval of department.

The economic component of comprehensive community planning. Taxation and services delivery. Fiscal health and physical and social development of a community.

SA: UP 354

~~Effectiv~~e Spring ~~Semeste~~r 2021 Effective Fall Semester 2023

UP 494 Planning Practicum

Spring of every year. 6(0-12) ~~P~~: ~~U~~P ~~31~~4 and ~~U~~P 454 P: (UP 424 or UP 824) and UP 433 and (UP 454 or UP 854) and (UP 365 or UP 865) ~~R~~: ~~Ope~~n ~~t~~o seni~~or~~s in ~~th~~e Urban and Region~~a~~l Planning Major. R: Open to students in the Urban and Regional Planning Major.

Collection, analysis and synthesis of planning information for an established urban or regional area. Problem identification and alternative plan formulation. Formulation of comprehensive physical development policies and plans, implementation of programs. SA: UP 494A, UP 494B

~~Effectiv~~e Spring ~~Semeste~~r 2021 Effective Fall Semester 2023

## COLLEGE OF SOCIAL SCIENCE

SSC 299 Integration of Social Science Perspectives

Fall of every year. Spring of every year. Summer of every year. 1(1-0) 3(3-0) P: (ANP 201 or ANP 203 or ANP 206 or EC 201 or EC 202 or GEO 151 or GEO 204 or HST 110 or HST 140 or HST

150) or (PLS 140 or PLS 160 or PLS 200 or PSY 101 or SOC 100 or SOC 161 or UP 100) RB: Recommended background: two or more prerequisite courses in different disciplines. ~~R~~: ~~Ope~~n to undergraduate ~~student~~s ~~i~~n the ~~Globa~~l ~~an~~d Internatio~~na~~l Studies ~~i~~n Soci~~a~~l Sci~~enc~~e Ma~~jo~~r ~~o~~r in the Interdisciplinary ~~Studie~~s ~~i~~n So~~cia~~l Scie~~nc~~e Major.

Multidisciplinary study. Integration of social science perspectives and policy issues. ~~Effectiv~~e ~~Summe~~r ~~Semeste~~r 2017 Effective Fall Semester 2023

## DEPARTMENT OF SUPPLY CHAIN MANAGEMENT

SCM 825 Strategic Sourcing

Spring of every year. 1.5(1.5-0) ~~P~~: ~~MB~~A 831 R: Open to MBA students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of department. C: SCM 826 concurrently or SCM 827 concurrently.

Strategic sourcing process. Opportunity assessment, spend and requirements analysis, supply market analysis, category sourcing strategy development and implementation.

Supplier evaluation and selection. SA: MSC 825

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2013 Effective Spring Semester 2023

SCM 826 Manufacturing Design and Analysis

Spring of every year. 1.5(1.5-0) ~~P~~: ~~MB~~A 831 R: Open to MBA students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of department. C: SCM 825 concurrently or SCM 827 concurrently.

Designing and analyzing operations processes. Capacity planning and management, process flow and mapping, value-mapping, quality tools and techniques, dependent demand inventory techniques. Recent developments and data.

SA: MSC 826

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2013 Effective Spring Semester 2023

SCM 827 Competing Through Supply Chain Logistics

Spring of every year. 1.5(1.5-0) ~~P~~: ~~MB~~A 831 R: Open to MBA students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of department. C: SCM 825 concurrently or SCM 826 concurrently.

Logistics as a value-adding process that synchronizes demand and supply. Supply chain logistics strategy, information technology, segmental positioning, forecasting and collaborative planning, and customer accommodation.

SA: MSC 827

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2013 Effective Spring Semester 2023

SCM 833 Decision Support Models

Spring of every year. 1 to 3 credits. ~~P~~: ~~SC~~M ~~80~~0 ~~o~~r ~~MB~~A 831 P: SCM 800

Analytical models to support decision making with specific supply chain focus. Topics include multiple regression, linear optimization, decisions under uncertainty, and forecasting.

~~SA~~: ~~MG~~T ~~833~~, ~~MS~~C ~~83~~3 SA: MSC 833

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2013 Effective Spring Semester 2023

SCM 834 Supply Chain Process Modeling and Simulation

Spring of every year. 1 to 3 credits. ~~P~~: ~~SC~~M ~~80~~0 ~~o~~r ~~MB~~A 831 P: SCM 800

Code simulation models in software to support decision making. Simulation concepts, programming, design methods, and results interpretation. Offered second half of semester.

~~Effectiv~~e Spring ~~Semeste~~r 2022 Effective Spring Semester 2023

SCM 842 Total Quality Management

Fall of every year. 1 to 3 credits. ~~P~~: ~~MB~~A ~~83~~1 ~~o~~r ~~SC~~M 800 P: SCM 800

Total quality management principles and practices, tools and techniques, implementation of continuous quality improvement programs, links to manufacturing and competitive strategies. Six Sigma and statistical quality control.

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2013 Effective Spring Semester 2023

SCM 869 Service Supply Chains

Spring of every year. 1 to 3 credits. ~~P~~: ~~MB~~A ~~83~~1 ~~o~~r ~~SC~~M 800 P: SCM 800

Service supply chains. Application of supply chain principles in a service environment. Service design and resource management. Management of the transformation processes. Management of delivery to the final customer.

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2013 Effective Spring Semester 2023

## DEPARTMENT OF WRITING, RHETORIC AND AMERICAN CULTURES

WRA 395 Wr~~itin~~g ~~Cente~~r T~~heor~~y and Practice

Writing Center Theory and Practice (W)

Fall of every year. Spring of every year. 3(3-0) Interdepartmental with English. P: Completion of Tier I Writing Requirement R: Approval of department.

Wr~~itin~~g ~~cente~~r t~~heor~~y a~~n~~d prac~~tice~~. Consulting ~~practices~~. Build comprehensive understandings of the theories and practices of writing centers, writing, and literacy that are influenced by social forces. Through reflection, practice, and community-engaged learning, develop toolkits and strategies for working with writers.

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2015 Effective Summer Semester 2023