

MICHIGAN STATE UNIVERSITY

Report of
THE UNIVERSITY COMMITTEE ON CURRICULUM
to the Faculty Senate
Actions by UCC
April 10, 2025

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

MICHIGAN STATE UNIVERSITY
University Committee on Curriculum

April 15, 2025

TO: Faculty Senate

This report is prepared and distributed for the following purposes:

1. To report new academic programs, changes in academic programs, discontinuations of academic programs, new courses, permanent changes in courses, and deletions of courses.
2. To notify the initiating colleges, schools, and departments of approval by the University Committee on Curriculum of their requests for new academic programs, changes in academic programs, discontinuations of academic programs, new courses, permanent changes in courses, and deletions of courses.
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

April 15, 2025

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 **Master of Science** degree in **Community Sustainability** in the Department of Community Sustainability. The University Committee on Graduate Studies (UCGS) approved this request at its March 17, 2025 meeting.

- a. Under the heading **Admission** delete the following sentence:

All applicants for admission are required to submit scores from the General Test of the Graduate Record Examination.

Effective Fall 2025.

2. Change the requirements for **Doctor of Philosophy** degree in **Community Sustainability** in the Department of Community Sustainability. The University Committee on Graduate Studies (UCGS) approved this request at its March 17, 2025 meeting.

- a. Under the heading **Admission** delete the following sentence:

All applicants for admission are required to submit scores from the General Test of the Graduate Record Examination.

Effective Fall 2025.

3. Change the requirements for the **Minor in Conservation, Recreation and Environmental Enforcement** in the Department of Fisheries and Wildlife.

- a. Under the heading **Minor in Conservation, Recreation and Environmental Enforcement** make the following changes:

(1) Change the total number of credits for the minor from '19 to 20' to '18 or 19'.

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

CSUS	278	Introduction to Conservation, Recreation and Environmental Enforcement	1
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- (3) Under the heading **Environmental Attitudes, Policy and Law** delete the following course:

FW	434	Human Dimensions of Fisheries and Wildlife Management (W)	3
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Effective Summer 2025.

4. Establish a **Master of Science** degree in **Food Regulatory Affairs** in the Department of Food Science and Human Nutrition. The University Committee on Graduate Studies (UCGS) recommended approval of this request at its February 17, 2025 meeting.

- a. **Background Information:**

The proposed Master of Science Degree in Food Regulatory Affairs was precipitated by a need frequently expressed by students and professionals in the food industry. Most regulatory professionals in the food industry obtain degrees in technical science areas such as food science, food engineering, nutrition sciences, etc. These scientific backgrounds generally do not include course work in laws or regulations. In 2024, the Institute for Food Laws and Regulations (IFLR) surveyed 26 major U.S. universities offering undergraduate food science degrees. We found that only 35% of programs require course work in food laws and regulations, and sometimes, the courses offered were only 1 credit hour of content. Thirty percent of programs surveyed offer a food law elective, and 35% offer no courses. Therefore, when these food science professionals move into regulatory capacities, typically a promotion within their company, they find themselves lacking in food law and policy development, regulatory implementation, regulatory affairs with government agencies, and regulatory management. While our current certificates in U.S. Food Laws and Regulations and International Food Laws and Regulations offer students important course work to assist them in their professional roles, many were seeking additional formal credentials. Through informal surveys of students and industry members, IFLR found that a master's degree in food regulatory affairs, specifically for food industry professionals, was an unfilled need for the professional development of food professionals. An additional consideration was that this program is designed for working professionals.

To this end, the program is available entirely through online education. A primarily asynchronous online program provides flexibility and an interactive experience for professionals working all around the U.S. and the world. This allows students to continue in their professions while obtaining additional education.

The Master of Science in Food Regulatory Affairs is not like any other degree program at MSU. The MSU College of Law offers a Master's in Global Food Law, but its program is designed primarily for current lawyers, government regulators, and other food industry professionals who focus on legal issues, including legal representation. In contrast, IFLR's Master's in Food Regulatory Affairs is designed for non-lawyers professionals who work in the regulatory sphere to ensure company compliance with food laws and regulations. Moreover, IFLR students will typically have a scientific background, and this master's program will apply that knowledge to building regulatory skills. Courses in the College of Law Master's Program in Global Food Law could be approved by IFLR food regulatory affairs advisors on a case-by-case basis.

Another sister program with a different focus is the College of Veterinary Medicine Master's in Food Safety. Food safety is rooted in the application of science to areas related to food. The food safety courses focus on pathogens, zoonotic diseases, antimicrobial resistance, and biotechnology. The scientific understanding and prevention of foodborne illnesses is significantly different from the focus on meeting regulatory requirements. Despite the differing focus, IFLR has a long history of collaboration with the College of Veterinary Medicine's Online Food Safety Program. IFLR's proposed master's program will include VM 810, Introduction to Food Safety and Professional Development as required course early in the program, and VM 826, Creating a Food Safety Culture, a pre-approved elective. Other courses could be approved by IFLR food regulatory affairs advisors on a case-by-case basis.

MSU offers a unique environment for offering this Master of Science. As a preeminent land grant university, MSU offers a collection of undergraduate and sister graduate programs unlike any other university. From the agricultural topics in the College of Agriculture and Natural Resources, such as Plant and Soil Sciences, Animal Science, Biosystems Engineering, Dietetics, Fisheries and Wildlife, Food Industry Management, Food Science, Horticulture, Nutrition Sciences, Packaging, to business and engineering majors to the Veterinary Science degree, all aspects of the food industry, farm to fork. This master's program would allow MSU to round out its offerings so that students can excel in any aspect of the food industry. In addition, MSU and the Institute for Food Laws and Regulations is already known for its exceptional food law certificate program. This master's degree builds upon IFLR's 26-year reputation in online food laws and regulation instruction.

b. **Academic Programs Catalog Text:**

The Master of Science Degree in Food Regulatory Affairs is an online program designed for students who wish to enhance their working knowledge of food regulatory affairs. This multidisciplinary program is suitable for students with various disciplines and experiences. It is particularly relevant to students involved in food law and policy development, regulatory implementation, regulatory affairs with government agencies, and regulatory management.

Admission

Applicants will be accepted after being reviewed by an admissions committee. An academic advisor will assist the student in planning a program of study that is related to the student's interests and professional goals and that fulfills college and university requirements.

Applicants must:

1. have completed a bachelor's degree from an accredited college or university with a minimum cumulative grade-point average of 3.0 on a 4.0 scale.
2. have completed 6 or more credits in food science, nutrition, dietetics, biology, or equivalent.
3. Demonstrate proficiency in written and spoken English and submit a letter of interest.

Applicants who do not meet all the requirements listed above may be admitted provisionally. Prerequisite (additional) course work may be required for provisional admission and does not count toward the degree.

Requirements for the Master of Science Degree in Food Regulatory Affairs

CREDITS

A total of 30 credits is required for the degree under Plan B (without thesis) and is available online only.

1. All of the following courses (15 credits):

FSC	810	International Food Laws and Regulations	3
FSC	811	Food Laws and Regulations in the United States	3
FSC	820	Regulatory Leadership in Food Law	3
FSC	870	Capstone Applied Project in Food Regulatory Affairs	3
VM	810	Introduction to Food Safety and Professional Development	3
2. Complete 15 additional credits in electives approved by the student's academic advisor.
3. Complete and pass the final capstone applied project.

Effective Fall 2025.

3. Establish an **Agricultural Technology** certificate in **Urban and Community Forestry** in the Institute of Agricultural Technology. The University Committee on Undergraduate Education (UCUE) recommended approval of this request at its February 20, 2025 meeting.

a. **Background Information:**

Certificate programs and workshops in the areas of production agriculture and horticulture were developed and launched in 1894 as campus-based programs. In 1994, the Institute of Agricultural Technology started to offer programs in collaboration with community colleges. There is currently no certificate program available for individuals interested in Urban and Community Forestry within the state of Michigan. MSU is one of only two universities in the state that currently offers an IAT certificate or bachelor's degree in Forestry; therefore, IAT in partnership with the Department of Forestry, has the experience and expertise to deliver a new certificate in Urban Community Forestry. If MSU can be the first university to offer such a program, we expect to bring in new students who would not otherwise consider our forestry programs.

The nation and state of Michigan face an overall shortage of trained graduates in the field of forestry, especially in urban forest management, where aging demographics will result in a wave of retirements in the coming years. In addition, as evidenced in letters of support for our MI DNR UCF IRA Grant, there is tremendous employer demand for trained urban and community foresters (e.g., Michigan Department of Natural Resources and International Society of Arboriculture – Michigan). These agency and industry partners have consistently stressed concerns in regard to shortages of trained graduates. Despite growing societal recognition of the importance of urban forests and trees and the growing demand for trained professionals, undergraduate enrollments in forestry have been in decline for decades. At the same time, there are limited options, especially for post-secondary and non-traditional students who are place-bound and unable to enroll in a traditional 4-year bachelor’s program. Given these issues, there is a need to reinvigorate forestry education programs to meet the changing needs of forestry practice and to train the upcoming generation of forestry professionals.

b. **Academic Programs Catalog Text:**

The Urban and Community Forestry program at the MSU Institute for Agricultural Technology provides students with the knowledge and technical skills necessary to sustainably manage trees in an urban environment, both in Michigan and beyond. Students connect directly with urban forestry leaders and professionals to gain hands-on experience in areas such as tree identification, tree selection, planting and pruning, climbing and aerial work, tree health care and risk assessment, and more. Upon completion of the program, graduates are often in high demand in this growing industry, and often pursue careers as urban tree planting coordinators; arborists; vegetation mapping coordinators; and urban forest technicians.

Requirements for Urban and Community Forestry

			CREDITS
Students must complete 48 credits from the following:			
1.	All of the following MSU courses (39 credits):		
	AT	293 Professional Internship in Agricultural Technology	3
	CSS	203 World of Soils	2
	ENT	110 Applied Entomology of Economic Plants	3
	FOR	111 Field Exploration of Urban and Community Forestry	1
	FOR	112 Career Development in Urban and Community Forestry	1
	FOR	113 Urban Tree Care Equipment and Worker Safety	2
	FOR	114 Introduction to Climbing and Aerial Tree Work	1
	FOR	120 Survey of Urban and Community Forestry	2
	FOR	125 Methods of Engagement in Urban and Community Forestry	2
	FOR	222 Forestry Field Methods	3
	FOR	225 Urban Forestry Information Technology	3
	FOR	235 Urban Tree Care Practicum	3
	FOR	240 Crew Leadership and Management in Arboriculture	2
	FOR	245 Capstone Experience in Urban and Community Forestry	2
	GEO	221 Introduction to Geographic Information	3
	GEO	221L Introduction to Geographic Information Laboratory	1
	HRT	211 Landscape Plants I	3
	PLP	105 Fundamentals of Applied Plant Pathology	1
	PLP	105L Fundamentals of Applied Plant Pathology Lab	1
2.	Complete at a minimum of 9 elective credits from the list below or as approved by the program coordinator in the Institute of Agricultural Technology.		
	AT	45 Agricultural Communications	2
	AT	71 Technical Mathematics	2
	AT	195 Research and Practice in Agricultural Technologies	3
	AT	202 Agricultural Regulation, Compliance and Safety	3
	AT	214 Leadership Development in Agriculture and Natural Resources Industries	2
	AT	221 Unmanned Aircraft Systems (UAS) in Agriculture	4
	CSS	110 Computer Applications in Agronomy	2
	CSUS	200 Introduction to Sustainability	3
	HRT	213 Landscape Maintenance	2

COLLEGE OF ARTS AND LETTERS

1. Change the requirements for the **Master of Fine Arts** degree in **Studio Art** in the Department of Art, Art History, and Design. The University Committee on Graduate Studies (UCGS) approved this request at its March 17, 2025 meeting.
 - a. Under the heading **Requirements for the Master of Fine Arts Degree in Studio Art** make the following changes:
 - (1) Replace item 5. with the following:

Complete one course at the 400-800 level in History of Art.
 - (2) Replace item 6. with the following:

Complete one course of at least 3 credits outside the department during the first year of enrollment.
 - (3) Renumber items 7. and 8. To 8. and 9. Respectively.
 - (4) Add the following item 7.:

At the end of the Spring semester of the first and second year students will complete an Annual Review. At the end of the third and final year, the spring semester review is the Oral Defense.

Effective Fall 2025.

2. Delete the curriculum and degree requirements for the **Disciplinary Teaching Minor in French** in the Department of Romance and Classical Studies. The University Committee on Undergraduate Education (UCUE) provided consultative commentary to the Provost after considering this request. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Undergraduate Education.

No new students are to be admitted to the program effective Spring 2025. No students are to be readmitted to the program effective Spring 2025. Effective Summer 2026, coding for the program will be discontinued and the program will no longer be available in the Department of Romance and Classical Studies. Students who have not met the requirements for the Disciplinary Teaching Minor in French through the Department of Romance and Classical Studies prior to Summer 2026 will have to change their disciplinary teaching minor.

Note: This program has been in moratorium since Spring 2025.

3. Delete the curriculum and degree requirements for the **Disciplinary Teaching Minor in Spanish-Elementary** in the Department of Romance and Classical Studies. The University Committee on Undergraduate Education (UCUE) provided consultative commentary to the Provost after considering this request. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Undergraduate Education.

No new students are to be admitted to the program effective Spring 2025. No students are to be readmitted to the program effective Spring 2025. Effective Summer 2026, coding for the program will be discontinued and the program will no longer be available in the Department of Romance and Classical Studies. Students who have not met the requirements for the Disciplinary Teaching Minor in Spanish-Elementary through the Department of Romance and Classical Studies prior to Summer 2026 will have to change their disciplinary teaching minor.

Note: This program has been in moratorium since Spring 2025.

4. Delete the curriculum and degree requirements for the **Disciplinary Teaching Minor in Spanish-Secondary** in the Department of Romance and Classical Studies. The University Committee on Undergraduate Education (UCUE) provided consultative commentary to the Provost after considering this request. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Undergraduate Education.

No new students are to be admitted to the program effective Spring 2025. No students are to be readmitted to the program effective Spring 2025. Effective Summer 2026, coding for the program will be discontinued and the program will no longer be available in the Department of Romance and Classical Studies. Students who have not met the requirements for the Disciplinary Teaching Minor in Spanish-Secondary through the Department of Romance and Classical Studies prior to Summer 2026 will have to change their disciplinary teaching minor.

Note: This program has been in moratorium since Spring 2025.

5. Change the requirements for the **Minor in Musical Theatre** in the Department of Theatre.
- a. Under the heading **Requirements for the Minor in Musical Theatre** replace the entire entry with the following:

Complete 19 credits from the following:

1. All of the following courses (14 credits):

THR	101	Acting I	3
THR	103	Voice for Musical Theatre	1
THR	203	Individual Voice for Musical Theatre	4
THR	206	Musical Theatre I	2
THR	306	Musical Theatre II	2
THR	406	Musical Theatre III	2
2. A minimum of 5 credits from the following courses:

DAN	251	Introduction to Dance	2
DAN	351	Dance Technique I	2
DAN	352	Dance Technique II	2
DAN	451	Dance Technique III	3
DAN	452	Dance Technique IV	3

Effective Fall 2025.

6. Change the requirements for the **Bachelor of Fine Arts** degree in **Theatre** in the Department of Theatre.
- a. Under the heading **Requirements for the Bachelor of Fine Arts Degree in Theatre** make the following changes:

- (1) In the **Acting for Stage, Screen, and New Media** concentration, under item (2) add the following courses:

THR	209	Improvisation for Actors	2
THR	309	Advanced Improvisation for Actors	2
THR	366	Stage Make-up	3

Delete the following course:

THR	413	Stage Make-up	3
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- (2) In the **Design** concentration, under item (3) add the following courses:

THR	315	Drafting for Theatre	3
THR	337	Compositing and Special Effects for Stage and Screen	3
THR	361	Lighting Technology for Theatre	3
THR	362	Costume Construction	3
THR	363	Costume Crafts	3
THR	364	Scene Painting for Theatre	3
THR	365	Props Design and Crafts for Theatre	3
THR	369	Media and Audio Engineering for Theatre	3

Delete the following courses:

THR	361	Topics in Lighting Technology	1 to 6
THR	362	Topics in Costume Technology	1 to 6
THR	364	Topics in Scenery Technology	1 to 6
THR	369	Topics in Digital Technology	1 to 6
THR	413	Stage Make-up	3

(3) In the **Stage Management** concentration, under item (3) add the following courses:

THR	314	Stagecraft	3
THR	315	Drafting for Theatre	3
THR	337	Compositing and Special Effects for Stage and Screen	3
THR	361	Lighting Technology for Theatre	3
THR	362	Costume Construction	3
THR	363	Costume Crafts	3
THR	365	Props Design and Crafts for Theatre	3
THR	366	Stage Make-up	3
THR	369	Media and Audio Engineering for Theatre	3

Delete the following courses:

THR	361	Topics in Lighting Technology	1 to 6
THR	362	Topics in Costume Technology	1 to 6
THR	364	Topics in Scenery Technology	1 to 6
THR	369	Topics in Digital Technology	1 to 6
THR	413	Stage Make-up	3

Effective Fall 2025.

7. Change the requirements for the **Master of Fine Arts** degree in **Theatre** in the Department of Theatre. The University Committee on Graduate Studies (UCGS) approved this request at its March 17, 2025 meeting.

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

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

(a) Delete the following course:

THR	811	Practicum: Design and Technology	9
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(b) Change the total credits in item (1) from '39' to '29'.

(c) Change the credits of 'THR 894' from '4' to '3'.

(d) Replace item 4. with the following:

Four of the following courses (12 credits):

THR	811	Practicum: Design and Technology	3
THR	814	Stagecraft: Scenic Construction Techniques	3
THR	815	Drafting for Theatre	3
THR	837	Compositing and Special Effects for Stage and Screen	3
THR	861	Lighting Technology for Theatre	3
THR	862	Costume Construction	3
THR	863	Costume Crafts	3
THR	864	Scene Painting for Theatre	3
THR	865	Props Design and Crafts for Theatre	3
THR	866	Theatrical Stage Makeup	3
THR	869	Media and Audio Engineering for Theatre	3

- (e) Add the following item (5):

Electives approved by the student's guidance committee from the above list or from another department at the University (9 credits)

Effective Fall 2025.

ELI BROAD COLLEGE OF BUSINESS

1. Change the **Admission to the College** criteria in the **Eli Broad College of Business**. The University Committee on Undergraduate Education (UCUE) approved this request at its March 20, 2025 meeting.

- (1) Replace the **Admission to the College** section with the following:

Admission to the Broad College of Business and a specific major provides access to enroll in certain courses required for the major. Enrollment in the Broad College of Business is limited, and admission the College is competitive.

Direct Admission for First-Year Students

Direct admission to the Broad College of Business is only offered to first-year students who are entering MSU in the fall semester. Students who matriculate in the spring or summer semester are not eligible for direct admission.

High school seniors are offered the opportunity to enter the Broad College of. To be considered for Direct Admission, applicants must:

1. Be admitted to Michigan State University as a first-year student matriculating in the fall semester.
2. List one of the following majors as the intended major when applying to MSU: accounting, finance, management, human resource management, marketing, supply chain management.

First-year students who are directly admitted to the Broad College designate their major preference as Business-Admitted. To maintain admission to the Broad College and be admitted to a degree-granting major, a direct admit student must meet academic requirements no later than the end of a student's 3rd semester at MSU. The Broad College's Undergraduate Academic Services (UAS) unit maintains the requirement list and monitors student records for completion.

Direct Admission for Transfer Students

Incoming transfer students are offered the opportunity to enter the Broad College of Business. To be considered for Transfer Admission, applicants must:

1. Be admissible to Michigan State University.
2. List one of the following majors as the intended major when applying to MSU: accounting, finance, management, human resource management, marketing, supply chain management.
3. Meet the same academic criteria as students applying for secondary admission.

Competitive grade-point averages will be required. Undergraduate Academic Services will maintain and publish current standards. Admitted transfer students will enter with the Business-Admitted major designation, and be admitted to the Broad College degree-granting major of their choice during the Broad College's New Student Orientation.

Secondary Admission for Current MSU Students

Current MSU students must apply for Broad College in a fall or spring semester.

Admission is a holistic process that is based primarily on the cumulative grade-point average and grades in the pre-core courses listed below. Nonacademic factors and experiences will also be considered.

Students seeking admission should contact the Eli Broad College Undergraduate Academic Services.

Minimum criteria for admission to the college are:

1. Completion of 28 credits.
2. Completion of the following pre-core courses which will be used to calculate a student's precore grade-point average.:
 - a. Statistics 200 or approved substitution.
 - b. University's Tier I writing requirement. One course from WRA 101, WRA 195H, LB 133, MC 111, MC 112, or RCAH 111.
 - c. Economics 201 and 202.

Effective Fall 2025.

2. Establish the **Graduation Requirements for the Bachelor of Science** degree in the **Eli Broad College of Business**. The University Committee on Undergraduate Education (UCUE) approved this request at its March 20, 2025 meeting.
 - a. Add the following:

Graduation Requirements for the Bachelor of Science Degree

1. The University requirements for bachelor's degrees as described in the *Undergraduate Education* section of the catalog.
 The completion of Mathematics 103 and Statistics 200, 201, or 315 [referenced in item 2. a. below] may also satisfy the University mathematics requirement. CREDITS
2. The requirements for the BUSINESS CORE PROGRAM that consists of (60 or 61 credits):
 - a. All of the following courses (16 or 17 credits):

	EC	201	Introduction to Microeconomics	3
	EC	202	Introduction to Macroeconomics	3
	MTH	103	College Algebra	3
	STT	200	Statistical Methods	3
	or			
	STT	201	Statistical Methods	4
	or			
	STT	315	Introduction to Probability and Statistics for Business	3
	WRA	101	Writing as Inquiry	4

 Students who place into Statistics 200, 201, or 315 on the mathematics placement test and who complete Statistics 200, 201, or 315 will not be required to complete Mathematics 103.
 - b. All of the following courses (44 credits):

	ACC	201	Principles of Financial Accounting	3
	ACC	202	Principles of Management Accounting	3
	BUS	100	Business Major and Career Exploration	1
	BUS	200	Foundations of Business: Cross-Functional Perspectives and Practices	3
	BUS	400	Preparing for Professional Success: Transitioning from University to Career	1

FI	311	Financial Management	3
GBL	385	Business Law and Ethical Leadership	3
IBUS	310	International Business	3
ITM	208	Information Systems and Algorithmic Thinking for Business	4
ITM	210	Business Analytics	2
MGT	315	Managing Human Resources and Organizational Behavior	3
MGT	409	Business Policy and Strategic Management	3
MKT	250	Business Communication: Oral and Written Skills	3
MKT	300	Managerial Marketing	3
MKT	317	Market Analytics	3
SCM	303	Introduction to Supply Chain Management	3

c. **Integrative Experiences Requirement.** This requirement is designed to ensure that each Broad undergraduate student has the opportunity to develop and demonstrate competencies in Cultural and Community Competency, Entrepreneurial Mindset, Ethical Mindset, Global Mindset, Philanthropic Mindset, and Strategic Leadership. Students complete this requirement by choosing from options offered through the Broad College Web site.

The Broad College Undergraduate Program Committee will regularly review and update the list of approved experiences to ensure they continue to meet the integrative experiences requirement.

For further information or guidance, students should consult their Broad College academic advisor.

3. The requirements for one of the majors identified below.
4. A minimum grade–point average of 2.00 in courses in the Major Field of Concentration.
5. A maximum of 3 credits of internship or other work experience may be earned towards a Bachelor of Arts degree in the college.

The majors to which the requirements that are referenced in the Graduation Requirements for the Bachelor of Arts Degree statement apply are listed below by the units that administer them:

- Department of Accounting and Information Systems
 - Accounting
- Department of Finance
 - Finance
- Department of Management
 - Management
 - Human Resource Management
- Department of Marketing
 - Marketing
- Department of Supply Chain Management
 - Supply Chain Management

Effective Fall 2025.

3. Change the requirements for the **Master of Business Administration** degree in **Business Administration** in The Eli Broad College of Business and Graduate School of Management. The University Committee on Graduate Studies (UCGS) approved this request at its March 17, 2025 meeting.

a. Under the heading **Requirements for the Master of Business Administration Degree** make the following changes:

(1) In item 1. a., add the following course:

MBA	806	Social Issues in Management	1.5
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Effective Summer 2025.

4. Change the requirements for the **Master of Business Administration** degree in **STEM** in The Eli Broad College of Business and Graduate School of Management. The University Committee on Graduate Studies (UCGS) approved this request at its March 17, 2025 meeting.

a. Under the heading **Requirements for the STEM Master of Business Administration Degree** make the following changes:

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

MBA	823	Information Technology Strategy	1.5
MBA	846	Executive Lecture Series	1

Effective Summer 2025.

5. Change the award of **Bachelor of Arts** degree in **Accounting** to a **Bachelor of Science** degree in **Accounting** in the Department of Accounting and Information Systems.

Effective Fall 2025, no new students are to be admitted to the Bachelor of Arts Degree in Accounting. Effective Fall 2025, no students are to be readmitted to the Bachelor of Arts Degree in Accounting. Effective Fall 2030, coding for the Bachelor of Arts Degree in Accounting will be discontinued and the program will no longer be available in the Department of Accounting and Information Systems. Effective Fall 2025, students admitted to the major will be awarded a Bachelor of Science Degree in Accounting.

6. Change the requirements for the **Master of Science** degree in **Accounting and Data Analytics** in the Department of Accounting and Information Systems. The University Committee on Graduate Studies (UCGS) approved this request at its March 17, 2025 meeting.

The concentrations in the Master of Science degree in Accounting and Data Analytics are noted on the student's academic record when the requirements for the degree have been completed.

a. Under the heading **Requirements for the Master of Science Degree in Accounting and Data Analytics**, make the following changes:

(1) Renumber items 2., 3., and 4., to items 3. and 4. and add the following new item 2:

Complete the following course (3 credits):			
ACC	827	Accounting Analytics	3

(2) In item 3., under the **Accounting Analytics** concentration, delete the following course and requirement (*the remaining three courses will comprise the 9 credits*):

ACC	827	Accounting Analytics	3
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Two of the following courses (6 credits):

(3) In item 3., under the **Taxation** concentration, replace with the following:

Taxation (9 credits)			
ACC	833	Federal Income Tax of Corporations and Shareholders	3
Two of the following courses:			
ACC	830	Tax Research	3
ACC	836	U.S. Taxation of Multinational Transactions	3
ACC	850	Accounting and Tax Implications of Mergers and Acquisitions	3

(4) In item 4., under the **Transaction Services** concentration, replace with the following:

Transaction Services			
ACC	855	Transaction Services	3
Two of the following courses:			
ACC	807	Using Financial Statement Data for Decision Making - An Analytics Approach	3

ACC	850	Accounting and Tax Implications of Mergers and Acquisitions	3
FI	845	Financial Modeling and Simulation I	3

Effective Fall 2025.

7. Change the award of **Bachelor of Arts** degree in **Finance** to a **Bachelor of Science** degree in **Finance** in the Department of Finance.

Effective Fall 2025, no new students are to be admitted to the Bachelor of Arts Degree in Finance. Effective Fall 2025, no students are to be readmitted to the Bachelor of Arts Degree in Finance. Effective Fall 2030, coding for the Bachelor of Arts Degree in Finance will be discontinued and the program will no longer be available in the Department of Finance. Effective Fall 2025, students admitted to the major will be awarded a Bachelor of Science Degree in Finance.

8. Change the requirements for the **Bachelor of Science** degree in **Finance** in the Department of Finance.

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

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

FI	355	Financial Modeling	3
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- (2) In item 3. a. (1) change the total credits from '9' to '12'.

Effective Fall 2025.

9. Change the requirements for the **Minor in Real Estate** in the School of Hospitality Business.

- a. Under the heading **Minor in Real Estate** delete the following item 3.:

FI	355	Financial Modeling	3
HB	472	Real Estate Financial Modeling	1

Effective Summer 2025.

10. Change the award of **Bachelor of Arts** degree in **Human Resource Management** to a **Bachelor of Science** degree in **Human Resource Management** in the Department of Management.

Effective Fall 2025, no new students are to be admitted to the Bachelor of Arts Degree in Human Resource Management. Effective Fall 2025, no students are to be readmitted to the Bachelor of Arts Degree in Human Resource Management. Effective Fall 2030, coding for the Bachelor of Arts Degree in Human Resource Management will be discontinued and the program will no longer be available in the Department of Management. Effective Fall 2025, students admitted to the major will be awarded a Bachelor of Science Degree in Human Resource Management.

11. Change the award of **Bachelor of Arts** degree in **Management** to a **Bachelor of Science** degree in **Management** in the Department of Management.

Effective Fall 2025, no new students are to be admitted to the Bachelor of Arts Degree in Management. Effective Fall 2025, no students are to be readmitted to the Bachelor of Arts Degree in Management. Effective Fall 2030, coding for the Bachelor of Arts Degree in Management will be discontinued and the program will no longer be available in the Department of Management. Effective Fall 2025, students admitted to the major will be awarded a Bachelor of Science Degree in Management.

12. Change the award of **Bachelor of Arts** degree in **Marketing** to a **Bachelor of Science** degree in **Marketing** in the Department of Marketing.

Effective Fall 2025, no new students are to be admitted to the Bachelor of Arts Degree in Marketing. Effective Fall 2025, no students are to be readmitted to the Bachelor of Arts Degree in Marketing. Effective Fall 2030, coding for the Bachelor of Arts Degree in Marketing will be discontinued and the program will no longer be available in the Department of Marketing. Effective Fall 2025, students admitted to the major will be awarded a Bachelor of Science Degree in Marketing.

13. Change the award of **Bachelor of Arts** degree in **Supply Chain Management** to a **Bachelor of Science** degree in **Supply Chain Management** in the Department of Supply Chain Management.

Effective Fall 2025, no new students are to be admitted to the Bachelor of Arts Degree in Supply Chain Management. Effective Fall 2025, no students are to be readmitted to the Bachelor of Arts Degree in Supply Chain Management. Effective Fall 2030, coding for the Bachelor of Arts Degree in Supply Chain Management will be discontinued and the program will no longer be available in the Department of Supply Chain Management. Effective Fall 2025, students admitted to the major will be awarded a Bachelor of Science Degree in Supply Chain Management.

COLLEGE OF EDUCATION

1. Change the requirements for the **Doctor of Philosophy** degree in **Educational Psychology and Educational Technology** in the Department of Counseling, Educational Psychology and Special Education. The University Committee on Graduate Studies (UCGS) approved this request at its March 17, 2025 meeting.

- a. Under the heading **Requirements for the Doctor of Philosophy Degree in Educational Psychology and Educational Technology** make the following changes:

- (1) In item 2., add the following course:

CEP	931	Qualitative Methods in Educational Research	3
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- (2) In item 3., change item c. to item b. and make the following changes:

- (a) Change the requirement to “Two” of the following courses.

- (b) Add the following course:

CEP	905	Cultural Perspectives on Learning and Development	3
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Delete the following course:

CEP	917	Current Applications in Educational Technology	3
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- (c) Add the following note:

CEP 905 may be used to satisfy the “culture/justice” course requirement or used as a course in the Concentration Area if the “culture/justice” requirement is satisfied by another approved course.

- (3) In item 3., add the following item b.:

One of the following courses (3 credits):
One course on culture, critical perspectives, or social justice as approved by the student’s guidance committee.

Effective Fall 2025.

2. Change the requirements for the **Educational Specialist** degree in **School Psychology** in the Department of Counseling, Educational Psychology and Special Education. The University Committee on Graduate Studies (UCGS) approved this request at its March 17, 2025 meeting.

a. Under the heading **Requirements for the Educational Specialist Degree in School Psychology** replace the entire entry with the following:

Students must meet the requirements specified below. Students who hold a Master of Arts degree in School Psychology may already meet some of these requirements.

			CREDITS
1.	All of the following courses (48 credits):		
	a.	School Psychology (45 credits):	
		All of the following courses:	
	CEP	801A Collaboration and Consultation in Special Education	3
	CEP	804B Advanced Diagnosis and Remediation for Students with Literacy Disabilities	3
	CEP	809 Data-Driven Instruction within Multi-Tiered Systems of Support	3
	CEP	840 Policies, Practices, and Perspectives in Special Education	3
	CEP	841 Classroom and Behavior Management in the Inclusive Classroom	3
	CEP	844 Applied Behavior Analysis for Teachers	3
	CEP	847 Research and Program Evaluation in School Psychology	3
	CEP	880 Cognitive Assessment	3
	CEP	881 Social and Emotional Assessment and Intervention	3
	CEP	884 Roles and Functions of School Psychologists	3
	CEP	885 Development and Psychopathology Across the Lifespan	3
	CEP	886 Psychological Assessment and Intervention I	3
	CEP	888 Theories of Child Psychotherapy	3
	CEP	889 Consultation in School Psychology	3
	CEP	932 Quantitative Methods in Educational Research I	3
	b.	Families (3 credits):	
	HDFS	895 Families in Poverty	3
2.	Two enrollments of the following course (6 credits):		
	CEP	893K Practicum in School Psychology	3
3.	Two enrollments of the following course (6 credits):		
	CEP	894K Internship in School Psychology	3

Effective Summer 2025.

3. Change the requirements for the **Doctor of Philosophy** degree in **School Psychology** in the Department of Counseling, Educational Psychology and Special Education. The University Committee on Graduate Studies (UCGS) approved this request at its March 17, 2025 meeting.

a. Under the heading **Requirements for the Doctor of Philosophy Degree in School Psychology** replace the entire entry with the following:

The student must meet the requirements specified below. Students who hold an Educational Specialist or a Master of Arts degree in School Psychology may already meet some of these requirements. Student's doctoral plans must be approved by faculty and be consistent with the following requirements.

1. **Research.** Complete a minimum of 15 credits, including dissertation work as described below:

CEP	932	Quantitative Methods in Educational Research I	3
CEP	933	Quantitative Methods in Educational Research II	3
CEP	934	Multivariate Data Analysis I	4
CEP	968	Research Methods in Counseling and School Psychology	3
CEP	995	Practicum in Research Design and Data Analysis	3

Another advanced quantitative/qualitative methods course as approved by the student's academic advisor
2. **Ethical and Legal Standards.** Complete CEP 963 Ethics in Counseling and School Psychology (3 credits).
3. **Individual and Cultural Diversity.** Complete 15 credits from the following:

CEP	885	Development and Psychopathology Across the Lifespan	3
CEP	903	Cognitive Development Across the Lifespan	3
CEP	919	Multicultural Practice in Mental Health	3
CEP	972	Neurobiological Bases of Learning and Behavior	3
CEP	985A	Discipline-Specific Knowledge: Social Aspects of Behavior	1
CEP	985B	Discipline-Specific Knowledge: Developmental Aspects of Behavior	1
CEP	985C	Discipline-Specific Knowledge: Affective Aspects of Behavior	1
4. **Professional Values, Attitudes and Behaviors.** Complete 15 credits from the following:

CEP	884	Roles and Functions of School Psychologists	3
CEP	986	History of Psychology	3
CEP	894K	Internship in School Psychology-Fall	3
CEP	894K	Internship in School Psychology-Spring	3
CEP	994K	Internship in PhD School Psychology-Summer	3
CEP	994K	Internship in PhD School Psychology-Fall	3
CEP	994K	Internship in PhD School Psychology-Spring	3
5. **Communication and Interpersonal Skills.** Complete 6 credits from the following:

CEP	893K	Practicum in School Psychology-Fall	3
CEP	893K	Practicum in School Psychology-Spring	3
6. **Assessment.** Complete 6 credits from the following:

CEP	880	Cognitive Assessment	3
CEP	881	Social and Emotional Assessment and Intervention	3
7. **Intervention.** Complete 9 credits from the following:

CEP	886	Psychological Assessment and Intervention I	3
CEP	888	Theories of Child Psychotherapy	3
CEP	918	Theories of School-Based Psychological Interventions	3
8. **Supervision.** Complete at least one semester of CEP 993K Practicum in PhD School Psychology (3 credits), which includes a supervision experience.
9. **Consultation and Interprofessional/Interdisciplinary Skills.** Complete 3 credits of CEP 889 Consultation in School Psychology.
10. **Internship.** Participate in the Association of Psychology Postdoctoral and Internship Centers (APPIC) national match and complete a 2000-hour Internship in Psychology at an APPIC-approved internship site. Students enroll in 3 total credits of CEP 994K Internship in PhD School Psychology, for supervision purposes, during the time of the internship, which also fulfill program requirements in Professional, Values, Attitudes and Behaviors, as described above.
11. **Dissertation.** Successful completion and defense of the dissertation. Students may not earn more than 30 credits in CEP 999 Doctoral Dissertation Research, of which 24 credits are required.

4. Change the requirements for the **Bachelor of Arts** degree in **Special Education-Learning Disabilities** in the Department of Counseling, Educational Psychology and Special Education. The Teacher Education Council (TEC) approved this request at its March 13, 2025 meeting.

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

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

TE	301A	Children's Literacy Development PK-3 (W)	3
TE	301B	Children's Literacy Development 3-6 (W)	3

Add the following course:

TE	301	Children's Literacy Development (W)	3
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- (2) In item 2. c. in the **Grade Three through Grade Six** concentration, add the following course in item (3):

TE	333	Social Studies Curriculum for Upper Elementary Learners (3-6)	3
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Effective Fall 2025.

5. Change the name of the **Master of Arts** degree in **K-12 Educational Administration** in the Department of Educational Administration to **P-12 Educational Leadership**. The University Committee on Graduate Studies (UCGS) approved this request at its March 17, 2025.

Effective Fall 2025, no new students are to be admitted to the Master of Arts Degree in K-12 Educational Administration. Effective Fall 2025, no students are to be readmitted to the Master of Arts Degree in K-12 Educational Administration. Effective Fall 2025, coding for the Master of Arts Degree in K-12 Educational Administration will be discontinued and the program will no longer be available in the Department of Educational Administration. Effective Fall 2025, students admitted to the major will be awarded a Master of Arts Degree in P-12 Educational Leadership.

6. Change the requirements in the **Master of Arts** degree in **P-12 Educational Leadership** in the Department of Educational Administration. The University Committee on Graduate Studies (UCGS) approved this request at its March 17, 2025.

- a. Under the heading **Requirements for the Master of Arts Degree in P-12 Educational Leadership** replace the entire entry with the following:

The program is available only under Plan B (without thesis). The student must complete 30 credits specified below:

- All of the following courses (21 credits):

EAD	806	Evolving Practice of School Leaders	3
EAD	811	Data-Informed Instructional Leadership	3
EAD	812	Leading Continuous Improvement in Schools	3
EAD	820	School Leadership Internship	3
EAD	822	Engaging Diverse Students, Families, and Communities	3
EAD	852	The School Principalship	3
EAD	853	Education Finance and Policy	3
- A minimum of 9 credits in areas of professional interest and approved by the student's advisor.
- Pass a final certifying examination, embedded in EAD 812.

Effective Fall 2025.

7. Change the requirements for the **Bachelor of Arts** degree in **Elementary Education** in the Department of Teacher Education. The Teacher Education Council (TEC) approved this request at its March 13, 2025 meeting.

The concentrations referenced in the Bachelor of Arts degree in Elementary Education are noted on the student's academic record when the requirements for the degree have been completed.

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

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

The University's Tier II writing requirement for the Elementary Education major is met by completing Teacher Education 301 and Teacher Education 404A or 404B. Those courses are referenced in item 2. below.

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

TE	301A	Children's Literacy Development PK-3 (W)	3
TE	301B	Children's Literacy Development 3-6 (W)	3

Add the following course:

TE	301	Children's Literacy Development (W)	3
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- (3) In item 2. d., make the following changes:

- (a) In item (1) add the following course:

TE	301	Children's Literacy Development (W)	3
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- (b) Delete item (3) and renumber item (4) to item (3).

Effective Fall 2025.

COLLEGE OF ENGINEERING

1. Change the **Admission to the College** statement in the **College of Engineering**. The University Committee on Undergraduate Education (UCUE) recommended approval of this request at its March 20, 2025 meeting.

- a. Under the heading **Admission to the College**, add the following sentence in item 4.:

Biosystems Engineering, Chemical Engineering and Materials Science and Engineering require CEM 151.

Effective Fall 2025.

2. Change the **Graduation Requirements for All Majors** statement in the **College of Engineering**. The University Committee on Undergraduate Education (UCUE) recommended approval of this request at its March 20, 2025 meeting.

a. Under the heading **Graduation Requirements for All Majors**, add the following sentence in item 2. b.:

Biosystems Engineering, Chemical Engineering and Materials Science and Engineering require CEM 151.

Effective Fall 2025.

3. Change the requirements for the **Bachelor of Science** degree in **Technology Engineering** in the College of Engineering.

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

(1) In item 3. a. make the following changes:

(a) Change the total credits from '29' to '26', and delete the following:

A basic math or science elective from a define course pool 3

(b) Reletter items 3. b. and 3. c. to items 3. c. and 3. d. respectively.

(c) Add the following item 3. b.:

b.	One of the following courses (3 or 4 credits):			
	BS	161	Cell and Molecular Biology	3
	CEM	142	General and Inorganic Chemistry	3
	CEM	143	Survey of Organic Chemistry	4
	CEM	144	Organic Chemistry and Applications	3
	CEM	152	Principles of Chemistry	3
	ENT	205	Pests, Society and Environment	3
	IBIO	150	Integrating Biology: From DNA to Populations	3
	MGI	141	Introductory Human Genetics	3
	MGI	201	Fundamentals of Microbiology	3
	PLB	105	Plant Biology	3
	PSL	250	Introductory Physiology	4
	MTH	133	Calculus II	4
	MTH	299	Transitions	4

Students cannot fulfill both the math/basic science elective and the University Bioscience requirement with the same course.

(d) In item 3. d. change the requirement to the following:

In consultation with their academic advisor, students must select one of following: Embedded Cybersecurity concentration OR Mechatronics concentration or the Smart Agricultural Systems minor. The concentration or minor will be noted on the student's academic record.

(e) In item 3. d. add the following minor:

Smart Agricultural Systems Minor

Students must complete a minimum of 16 credits from the following:

1. All of the following courses (10 credits):

BE	221	Introduction to Smart Agriculture	1
BE	321	Principles of Precision Agriculture	3
BE	421	Sensors and Robotics for Agricultural Systems	3
BE	422	Crop Modeling and Optimization	3
2. Two of the following courses (6 or 7 credits):

BE	449	Human Health Risk Analysis for Engineering Controls	3
BE	456	Electric Power and Control 3	
BE	481	Water Resources Systems Analysis and Modeling	3
BE	482	Engineering Ecological Treatment Systems	3
CSE	404	Introduction to Machine Learning	3
CSE	440	Introduction to Artificial Intelligence	3
CSE	480	Database Systems	3
CSE	482	Big Data Analysis	3
CSS	467	Bioenergy Feedstock Production	3
ECE	416	Digital Control	4
ECE	417	Robotics	4
ECE	431	Smart Sensor Systems	3
ECE	434	Autonomous Vehicles	3
ECE	477	Microelectronic Fabrication	3
ME	417	Design of Alternative Energy Systems	3
ME	451	Control Systems	4
ME	456	Mechatronic System Design	3

Effective Fall 2025.

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

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

(1) In item 3. a., change the total credits from '42' to '46' and add the following courses:

CE	271	Introduction to Civil and Environmental Engineering	3
CE	361	Computational Methods in Civil Engineering	3
CE	496	Review for the CE and ENE Fundamentals of Engineering Exams	1

Delete the following course:

ENE	280	Principles of Environmental Engineering and Science	3
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(2) In item 3. b. change 'GLG 301' to 'GLG 203'.

(3) Delete items 3. c. and 3. d. and reletter item 3. e. to 3. c

(4) Relletter item 3. f. to 3. d. and add the following courses:

ENE	380	Principles of Environmental Engineering and Science	3
ENE	381	Environmental Chemistry	3

Delete the following course:

ENE	481	Environmental Chemistry: Equilibrium Concepts	3
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Effective Fall 2025.

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

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

- (1) In item 3. a., change the total credits from '53 to '57 and add the following courses:

CE	271	Introduction to Civil and Environmental Engineering	3
CE	496	Review for the CE and ENE Fundamentals of Engineering Exams	1
ENE	380	Principles of Environmental Engineering and Science	3
ENE	381	Environmental Chemistry	3

Delete the following courses:

ENE	280	Principles of Environmental Engineering and Science	3
ENE	481	Environmental Chemistry: Equilibrium Concepts	3

- (2) In item 3. d. change 'GLG 301' to 'GLG 203'.

- (3) Delete item 3. e. and reletter item 3. f. to 3. e

- (4) In item 3. e. add the following courses:

BE	484	Water Resource Recovery Engineering	3
CE	473	Smart and Sustainable Building Design and Operations	3
CE	485	Landfill Design	3
ENE	472	Life Cycle Assessment of Energy Technologies	3

Delete the following course:

FW	414	Aquatic Ecosystem Management	3
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Effective Fall 2025.

COLLEGE OF HUMAN MEDICINE

1. Change the requirements for the **Professional Program in Human Medicine** leading to the **Doctor of Medicine (M.D.)** degree. The University Committee on Graduate Studies (UCGS) approved this request at its March 17, 2025 meeting.

- a. Under the heading **Requirements for the Doctor of Medicine Degree** make the following changes:

- (1) In item 1. Change the total credits from '140' to '90' and delete the following courses:

FM	641	Family Medicine Clerkship in the Late Clinical Experience	6
HM	553	Medical School II	16
HM	554	Medical School III	16
HM	555	Medical School IV	16
HM	556	Medical School V	16
HM	653	Advanced Skills and Knowledge in Medical School III	3

HM	654	Advanced Skills and Knowledge in Medical School IV	3
HM	655	Advanced Skills and Knowledge in Medical School V	3
OGR	641	Obstetrics and Gynecology Clerkship in the Late Clinical Experience	6
PHD	641	Pediatric Clerkship in the Late Clinical Experience	6
SUR	641	Surgery in the Late Clinical Experience I	6
SUR	642	Surgery in the Late Clinical Experience II	6

Add the following courses:

FM	641	Family Medicine Clerkship	9
HM	553	Medical School II	13
HM	603	Transition to Clerkships I	1
HM	673	Transition to Residency	3
OGR	641	Obstetrics and Gynecology Clerkship	9
PHD	641	Pediatric Clerkship	9
SUR	651	Surgery Clerkship	9

(2) Renumber item 2. to item 3.

(3) Add the following item 2.:

2.	One of the following combinations (32 credits):			
a.	Two (2) semester series			
	HM	565	Integrated Medical School III	16
	HM	566	Integrated Medical School IV	16
b.	Three (3) semester series			
	HM	562	Medical School III	13
	HM	563	Medical School IV	13
	HM	564	Integrated Topics in Human Medicine	6

(4) Delete item 3.

(5) In item 4., make the following changes:

(a) Change the requirement to 'Complete 28 weeks of Elective Clerkships (42 credits)'.

(b) Add the following courses:

ANES	619	Introduction to Anesthesiology - An Anesthesia Primer	3
ANES	620	Chronic Pain Management	6
ANES	621	Concepts in Clinical Anesthesiology I	6
ANES	622	Concepts in Clinical Anesthesiology II	6
FM	614	Breastfeeding and Lactation	3
FM	615	Addiction Medicine	3
FM	619	Telemedicine Medicine Experiences in Rural Clinical Settings	3
FM	621	Advanced Addition Medicine	3
HM	606	Student-Designed Non-Clinical Elective	3 or 6
HM	607	Medical Reading Elective	3 or 6
HM	617	Introduction to Simulation Education Elective	3 or 6
HM	627	Interdisciplinary Exploration with Special Populations: Veterans Affairs	6
HM	628	Racism and Other Health Disparities	3
HM	634	Indigenous Community Health	3 or 6
HM	638	Lifestyle Medicine	3 or 6
HM	648	Care of Migrant and Seasonal Agricultural Workers Elective	3 or 6
MED	617	Sleep Medicine	3 or 6
RAD	610	Advanced Imaging	3
SUR	634	Neurosurgery Sub-Internship	6
SUR	635	Perioperative Trauma Medicine	6

- b. Under the heading **Oral Maxillofacial Surgery Pathway** replace the entire entry with the following:

MSU-CHM provides an Oral Maxillofacial Surgery (OMFS) Pathway for students accepted to the College of Human Medicine who have successfully completed a D.D.S degree and have been accepted to the Henry Ford Hospital Oral Maxillofacial Surgery Residency Program. These students will begin the M2 year upon matriculation, and will complete the remainder of the M.D. program credits through the MD/OMFS residency track program, receiving a waiver for 41 credits. OMFS students must complete all listed Requirements for the Doctor of Medicine degree except for the differences outlined here:

- Exempted from taking HM 552 and HM 553.
- Instead of HM 562, must complete HM 544 Med School III, 10 credits.
- Instead of HM 564, must complete HM 549 Integrated Topics in Human Medicine, 9 credits.
- From the Critical Care Selectives, OMFS students must complete MED 643 Medicine Critical Care, 6 credits.
- Must complete a total of 30 credits of electives for graduation, and are exempted from 12 credits. One elective must be SUR 635 Perioperative Trauma Medicine, 6 credits.

Effective Fall 2025.

JAMES MADISON COLLEGE

1. Change the requirements of the **Minor in Muslim Studies** in James Madison College.
- a. Under the heading **Requirements for the Minor in Muslim Studies** make the following changes:
- (1) Delete item 1., and renumber item 2. to item 1.

Effective Fall 2025.

COLLEGE OF SOCIAL SCIENCE

1. Change the requirements for the **Bachelor of Arts and Bachelor of Science** degree in **Interdisciplinary Studies in Social Science** in the College of Social Science.
- a. Under the heading **Requirements for the Bachelor of Arts or Bachelor of Science Degree in Interdisciplinary Studies in Social Science** make the following changes:
- (1) In item 3., add the following course:
- | | | | |
|-----|-----|---------------------------------|---|
| GEO | 151 | Introduction to Human Geography | 3 |
| | | Or | |
| GEO | 204 | World Regional Geography | 3 |
- (2) Replace the **Geography Cognate** with the following:
- In addition to the GEO 151 or 204 foundation course listed in item 3. above, complete the following:
- a. Two of the following courses:
- | | | | |
|-----|-----|--|---|
| GEO | 113 | Introduction to Economic Geography | 3 |
| GEO | 206 | Physical Geography | 3 |
| GEO | 221 | Introduction to Geographic Information | 3 |
- b. Two Geography courses at the 300-400 level. 6

- (3) Replace the **History Cognate** with the following:
- In addition to the HST 110 foundation course listed in item 3. above, complete the following:
Four History courses at the 300-400 level, only two of which may be on the United States. 12
- (4) Replace the **Liberal Studies Cognate** with the following:
- Integrative Studies Cognate**
Similar to other cognates, students interested in completing an Integrative Studies cognate must complete 15 credits of course work with no more than two courses from a single discipline and at least 9 credits in the College of Social Science. To pursue this cognate, a student must develop a proposal in coordination with an Interdisciplinary Studies in Social Science advisor that includes the following:
- a. A proposed outline for the course work to be taken with a rationale for each course.
 - b. A statement of purpose for the proposed course work.
 - c. A set of learning outcomes that will be achieved through the course work that is not available in other majors at the University, or the College.
- The proposed course of study must be approved by an Interdisciplinary Studies in Social Science advisor, two faculty members in the College of Social Science, and the Center for Integrative Studies director.
- (5) Replace the **Political Science Cognate** with the following:
- In addition to the PLS 200 foundation course listed in item 3. above, complete the following:
Four Political Science courses at the 300-400 level 12
- (6) Replace the **Psychology Cognate** with the following:
- In addition to the PSY 101 foundation course listed in item 3. above, complete the following:
- a. Two of the following courses:

PSY	200	Cognitive Psychology	3
PSY	209	Brain and Behavior	3
PSY	235	Social Psychology	3
PSY	236	Personality	3
PSY	238	Developmental Psychology: Lifespan	3
PSY	244	Developmental Psychology: Infancy Through Childhood	3
PSY	255	Industrial and Organizational Psychology	3
PSY	270	Community Psychology	3
PSY	280	Psychological Disorders	3
PSY	295	Data Analysis in Psychological Research	3

Students who have completed Statistics and Probability 315 should consult an academic advisor before completing PSY 295.
 - b. Two Psychology courses at the 300-400 level. 6
- (6) Replace the **Sociology Cognate** with the following:
- In addition to the SOC 100 foundation course listed in item 3. above, complete the following:
- a. One Sociology course at the 200-level 3
 - b. Three Sociology courses at the 300-400 level. 9

2. Change the requirements for the **Master of Science** degree in **Child Development** in the Department of Human Development and Family Studies. The University Committee on Graduate Studies (UCGS) will consider this request at its April 21, 2025 meeting.

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

(1) Replace the paragraph 'International applicants must take' with the following:

5. International applicants must show language proficiency through a university-approved language exam.

(2) Under the heading **Requirements for Plan A** replace the entire entry with the following:

1. All of the following courses (9 credits):

HDFS 811	Child Development: Ecological Perspectives	3
HDFS 880	Research Design and Measurement	3
HDFS 881	Quantitative Methods in Human Development	3

Another course in quantitative methods may be used to fulfill either course.

2. One 3 credit course in diversity in human development and family studies selected in consultation with the student's adviser. Diversity is defined broadly and could include diversity in race or ethnicity, culture, developmental abilities, socioeconomic status, etc.

3. Four elective courses (12 credits) on topics such as child development, applied methods, child and family policy, family diversity, lifespan development, family studies; or related areas. Course electives may include courses outside of the department.

4. Complete 6 credits of HDFS 899 Master's Thesis Research.

(3) Under the heading **Requirements for Plan B** replace the entire entry with the following:

Plan B master's students may choose from two concentrations: Early Childhood Leadership, Administration, and Policy (30 credits) or Early Childhood Development and Practices (30 credits).

Early Childhood Leadership, Administration, and Policy (30 credits)

1. All of the following (6 credits):

HDFS 473	Administration of Early Childhood Programs	3
HDFS 811	Child Development: Ecological Perspectives	3

2. All of the following courses (12 credits):

These courses are to be taken through the Innovative Digital Education Alliance (IDEA). These courses are offered online only and may be taught by faculty at another university participating in the IDEA..

HDFS 805	Early Childhood Education and Care Policy I: History, Child Development, and Equity	3
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HDFS 806	Early Childhood Education and Care Policy II: Examining Practices, Policies, and Key Issues	3
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HDFS 807	Early Childhood Education and Care Policy III: Theory, Analysis, and Research	3
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HDFS 808	Early Childhood Education and Care Policy IV: Policy Leadership and Policy Advocacy	3
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3. Complete 12 credits of electives determined in consultation with the student's advisor, and may include courses offered outside of the department. Topics may include child development, parenting, early childhood education, applied methods, child and family policy, family diversity, lifespan development, assessment and evaluation, or related areas.

Early Childhood Development and Practices (30 credits)

1. All of the following (9 credits):

HDFS	473	Administration of Early Childhood Programs	3
HDFS	811	Child Development: Ecological Perspectives	3
HDFS	825	Families with Special Needs Children: An Ecological Perspective	3

With permission of the student's advisor, HDFS 449 may be used in lieu of HDFS 825.
2. Complete 21 credits of 800-level electives determined in consultation with the student's advisor, and may include courses offered outside of the department. Topics may include from 800-level courses on topics such as child development, parenting, early childhood education, applied methods, child and family policy, family diversity, lifespan development, assessment and evaluation, or related areas.

Effective Fall 2025.

3. Change the name of the **Minor in Resource Management from the Individual, Family and Societal Perspective** in the Department of Human Development and Family Studies to **Financial Literacy for Personal and Community Success**.

Effective Fall 2025, no new students are to be admitted to the Minor in Resource Management from the Individual, Family and Societal Perspective. Effective Fall 2025, no students are to be readmitted to the Minor in Resource Management from the Individual, Family and Societal Perspective. Effective Fall 2025, coding for the Minor in Resource Management from the Individual, Family and Societal Perspective will be discontinued and the program will no longer be available in the Department of Human Development and Family Studies. Effective Fall 2025, students admitted to the major will be awarded a Minor in Resource Management from the Individual, Family and Societal Perspective.

4. Change the requirements in the **Minor in Financial Literacy for Personal and Community Success** in the Department of Human Development and Family Studies.

- a. Under the heading **Requirements for the Minor in Financial Literacy for Personal and Community Success** make the following changes:

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

HST	413	Families in Historical Perspective	3
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Effective Fall 2025.

5. Change the requirements for the **Master of Science** degree in **Human Development and Family Studies** in the Department of Human Development and Family Studies. The University Committee on Graduate Studies (UCGS) will consider this request at its April 21, 2025 meeting.

- a. Under the heading **Admission**, replace the paragraph following item 4. with the following:

All international applicants and applicants whose native language is not English must be able to provide evidence of English language proficiency. Please see the MSU Policy on English Language Competency for accepted tests and acceptable scores.

- b. Under the heading **Requirements for the Master of Science Degree in Human Development and Family Studies** make the following changes:

- (1) Under the heading **Requirements for Both Plan A and Plan B** replace the entire entry with the following:

1. All of the following courses (9 credits):
 - HDFS 810 Theories of Human Development 3
 - HDFS 880 Research Design and Measurement 3
 - A course in diversity, approved by committee 3
- (2) Under the heading **Additional Requirements for Plan A** change the credits in item 2. from '9' to '12'.
- (3) Under the heading **Additional Requirements for Plan B** replace the entire entry with the following:
 1. One of the following courses (3 credits):
 - HDFS 481 Research and Quantitative Methods in Human Development and Family Studies 3
 - HDFS 881 Quantitative Methods in Human Development 3
 2. Complete 18 credits chosen in consultation with the student's advisor.

Effective Fall 2025.

6. 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) will consider this request at its April 21, 2025 meeting.
 - a. Under the heading **Requirements for the Doctor of Philosophy Degree in Human Development and Family Studies**, make the following changes:
 - (1) Delete items 5., 6., and 7.
 - (2) Under the **Couple and Family Therapy** concentration make the following changes:
 - (a) Change the total credits from '18' to '15'.
 - (b) Delete the following course:
 - HDFS 911 Outcome Research: What Works in Couple and Family Therapy Theories 3
 - (3) Replace the **Diversity, Youth, and Family Development** concentration with the following:

Complete all of the following (12 to 15 credits):

 - HDFS 810 Theories of Human Development 3
 - A course in diversity chosen in consultation with the student's guidance committee.
 - Two or three additional courses chosen in consultation with the student's guidance committee. 6 to 9
 - (4) Add the following requirements:
 5. Training in Responsible and Ethical Conduct of Research (RECR).
 6. Successfully pass the comprehensive examination.
 7. Successfully propose and defend the doctoral dissertation.
 8. Complete the HDFS PhD Portfolio, including:
 - a. Minimum of two conference presentations
 - b. Authorship on a minimum of one peer-reviewed publication
 - c. Research statement
 - d. Teaching philosophy statement
 - e. Curriculum Vitae

Effective Spring 2026.

7. Change the requirements for the **Master of Social Work** degree with majors in **Clinical Social Work, Clinical Social Work-Advanced Standing, Organization and Community Leadership**, and **Organization and Community Leadership-Advanced Standing** in the School of Social Work. The University Committee on Graduate Studies (UCGS) will consider this request at its April 21, 2025 meeting.
 - a. Under the heading **Admission to the Master of Social Work Degree Program**, make the following changes:
 - (1) In paragraph two, delete item 4.
 - (2) In paragraph three, delete items 1., 4., and the “For Weekend, applicants must” section and renumber respectively.
 - b. Under the heading **Requirements for the Master of Social Work Degree Program**, make the following changes:
 - (1) Under **Organization and Community Leadership**, delete item 3. and replace with the following:

Complete 3 credits of general electives from a preapproved list of courses. Courses are reviewed on an annual basis and may require permission for enrollment. Student should consult advising staff prior to selection.
 - c. Under the heading **Admission to the Advanced Standing Master of Social Work Degree Program**, make the following changes:
 - (1) In paragraph three, delete item 4.
 - (2) In paragraph four, delete items 1. and 4. and renumber respectively.
 - d. Under the heading **Requirements for the Advanced Standing Master of Social Work Program** make the following changes:
 - (1) Under **Organization and Community Leadership**, delete item 3. and replace with the following:

Complete 3 credits of general electives from a preapproved list of courses. Courses are reviewed on an annual basis and may require permission for enrollment. Student should consult advising staff prior to selection.

Effective Fall 2025.

PART II - NEW COURSES

DEPARTMENT OF ACCOUNTING AND INFORMATION SYSTEMS

- ACC 855 Transaction Services
Spring of every year. 3(3-0) R: Open to master's students in the Department of Accounting and Information Systems or in the Accounting Major. Approval of department.
Presentation, discussion and analysis of the various stages of a transaction, from strategic planning to post-close transaction matters
Effective Spring Semester 2025
- ITM 208 Information Systems and Algorithmic Thinking for Business
Fall of every year. Spring of every year. Summer of every year. 4(4-0) R: Open to undergraduate students in the Accounting major or in the Business - Admitted major or in the Finance Major or in the Human Resource Management Major or in the Information Technology Minor or in the Management Major or in the Marketing Major or in the Supply Chain Management Major and not open to undergraduate students in the Hospitality Business Major.
Fundamentals of information systems concepts and applications relevant to business. Use common business software and programming language(s) to develop their algorithmic thinking abilities, gain hands-on experience with business software packages and learn information system topics necessary for technology literacy the digital workplace. The course will include programming and problem solving using a high-level language (such as Python) and the intersection with common business applications.
Effective Fall Semester 2025

DEPARTMENT OF ADVERTISING AND PUBLIC RELATIONS

- ADV 801 Theories of Digital Media 1
Fall of every year. 2(2-0) R: Open to master's students in the College of Communication Arts and Sciences or in the Department of Advertising and Public Relations or in the International Digital Advertising Major or in the International Digital Advertising Dual Major.
Key concepts and theoretical frameworks of consumer behavior, advertising, and public relations in the context of the digital media environment.
Effective Fall Semester 2025
- ADV 802 Theories of Digital Media 2
Spring of every year. 1(1-0) R: Open to master's students in the College of Communication Arts and Sciences or in the Department of Advertising and Public Relations or in the International Digital Advertising Major or in the International Digital Advertising Dual Major.
Further exploration of key concepts and theoretical frameworks of digital advertising.
Effective Fall Semester 2025
- ADV 827 Digital Advertising and Public Relations Practices
Fall of every year. 3(3-0) R: Open to master's students in the College of Communication Arts and Sciences or in the Department of Advertising and Public Relations or in the International Digital Advertising Major or in the International Digital Advertising Dual Major.
Digital practices for advertising and public relations. Data-informed strategic planning for digital campaigns; engaging with stakeholders strategically, ethically, and with cultural sensitivity.
Effective Fall Semester 2025
- ADV 837 Digital Creativity and Entrepreneurship
Fall of every year. 3(3-0) R: Open to master's students in the College of Communication Arts and Sciences or in the Department of Advertising and Public Relations or in the International Digital Advertising Major or in the International Digital Advertising Dual Major.
Creativity, critical thinking and entrepreneurship in digital advertising.
Effective Fall Semester 2025

- ADV 891 Special Topics in Digital Advertising
Fall of every year. Spring of every year. 1(1-0) R: Open to master's students in the College of Communication Arts and Sciences or in the Department of Advertising and Public Relations or in the International Digital Advertising Major or in the International Digital Advertising Dual Major.
Varied topics pertaining to digital advertising and public relations processes.
Effective Fall Semester 2025

DEPARTMENT OF ART, ART HISTORY, AND DESIGN

- STA 352 Introduction to Sculpture
Fall of every year. Spring of every year. 3(0-6) P: STA 110 and STA 112 and STA 113 and STA 114 or approval of department R: Open to undergraduate students in the College of Arts and Letters or in the Department of Art, Art History, and Design or in the Bachelor of Fine Arts in Studio Art.
A survey of contemporary sculpture concepts and practices, combining traditional techniques with the discipline's latest fabrication methods and ideas.
Effective Fall Semester 2025
- STA 474S Senior Project in Studio and Location Lighting
Spring of every year. 3(0-6) R: Open to seniors in the Bachelor of Fine Arts in Studio Art. Approval of department. ~~C: STA 474 concurrently~~ C: STA 474 concurrently
Intensive studio work in studio and location lighting.
Effective Spring Semester 2025
- STA 480 Advanced Electronic Arts and Intermedia
Spring of every year. 4(0-8) A student may earn a maximum of 20 credits in all enrollments for this course. P: STA 384 or STA 385 or approval of department
Presentation of student's ongoing research and creative projects within an interdisciplinary framework.
Effective Spring Semester 2025

BIOLOGICAL SCIENCE PROGRAM

- BS 200 Biological Sciences Fellows Directed Studies
Fall of every year. Spring of every year. 2(2-0) A student may earn a maximum of 8 credits in all enrollments for this course. RB: Recommended for students who have taken or are enrolled in BS161, BS171, BS162, BS172, BS181H, BS191H, BS182H, and/or BS192H. R: Approval of department.
Develop and implement a collaborative project that improves student experiences and success in STEM and BioSci.
Effective Fall Semester 2025

THE ELI BROAD COLLEGE OF BUSINESS

- BUS 200 Foundations of Business: Cross-Functional Perspectives and Practices
Fall of every year. Spring of every year. 3(3-0) RB: Admitted to Broad College of Business R: Open to students in the Accounting major or in the Business - Admitted major or in the Finance Major or in the Human Resource Management Major or in the Management Major or in the Marketing Major or in the Supply Chain Management Major.
Overview of business disciplines to create understanding of the cross-functional nature of business. Foundations of accounting, finance, human resources, consulting, marketing, and supply chain management; global business; analytics; law/ethics; strategy; introduction to teamwork; leadership; project management.
Effective Fall Semester 2025

- BUS 400 Preparing for Professional Success: Transitioning from University to Career
Fall of every year. Spring of every year. 1(1-0) R: Open to juniors or seniors in the Accounting major or in the Finance Major or in the Human Resource Management Major or in the Management Major or in the Marketing Major or in the Supply Chain Management Major.
Prepares Broad students for the transition from university to professional careers. Covers workplace expectations, professional development, and life skills. Features guest speakers, alumni insights, and practical guidance on navigating the real world. Topics include personal finance, workplace etiquette, ethics, wellness, and post-graduation planning. Provides resources for career success and lifelong learning.
Effective Fall Semester 2025

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

- CE 271 Introduction to Civil and Environmental Engineering
Fall of every year. 3(2-2) P: (EGR 100 and EGR 102) and completion of Tier I writing requirement R: Open to undergraduate students in the College of Engineering.
Introduction to the civil and environmental engineering professions. Overview of the primary subject areas in civil and environmental engineering, cultural and societal impacts of engineering decisions, sustainability, economics, data analysis, technical communication, and professional practice. Applications of civil and environmental engineering in daily life.
Effective Fall Semester 2025

DEPARTMENT OF COUNSELING, EDUCATIONAL PSYCHOLOGY, AND SPECIAL EDUCATION

- CEP 847 Research and Program Evaluation in School Psychology
Summer of every year. 3(3-0) P: CEP 932 R: Open to educational specialist in the Educational Specialist in School Psychology Major.
Research and program evaluation methods for school psychologists practicing in schools, including critique and dissemination of findings, applied practice working on an outside research project.
Effective Summer Semester 2025
- CEP 860 Stress Management
Fall of every year. Spring of every year. 3(3-0)
Physiological and psychological foundations of the human stress response. Therapeutic approaches to stress management.
Effective Spring Semester 2026
- CEP 985A Discipline-Specific Knowledge: Social Aspects of Behavior
Summer of every year. 1(1-0) R: Open to doctoral students in the School Psychology Major.
Foundational knowledge in social aspects of behavior for health service psychologists--including group processes, attributions, discrimination, attitudes, motivation.
Effective Summer Semester 2025
- CEP 985B Discipline-Specific Knowledge: Developmental Aspects of Behavior
Summer of every year. 1(1-0) R: Open to doctoral students in the School Psychology Major.
Foundational knowledge for health service psychologists in key concepts and theories related to lifespan developmental processes.
Effective Summer Semester 2025
- CEP 985C Discipline-Specific Knowledge: Affective Aspects of Behavior
Summer of every year. 1(1-0) R: Open to doctoral students in the School Psychology Major.
Foundational knowledge for health service psychologists about key concepts and theories related to affective influences on learning and behavior.
Effective Summer Semester 2025
- CEP 986 History of Psychology
Summer of odd years. 3(3-0) R: Open to doctoral students in the School Psychology Major.
Psychology's philosophical and physiological roots, major schools of thought, historical influences, major thought leaders. Selective nature of history, missing aspects of history, evolution of the field over time.
Effective Summer Semester 2025

DEPARTMENT OF EARTH AND ENVIRONMENTAL SCIENCES

- GLG 330 Biogeochemistry
Spring of every year. 3(3-0) P: CEM 141 or CEM 151 or CEM 181H or LB 171 RB: (GLG 200 or GLG 201 or GEO 206 or IBIO 355) and CEM 161
Physical, chemical, and biological processes that govern the flow of chemical elements. How humans have altered the movement of these chemical elements through the environment. Biogeochemical cycling of elements between the hydrosphere, lithosphere, atmosphere, and biosphere across time and space.
Effective Spring Semester 2025

COLLEGE OF ENGINEERING

- TNG 290 Independent Study in Technology Engineering
Fall of every year. Spring of every year. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. R: Open to freshmen or sophomores in the Technology Engineering Major. Approval of department.
Supervised individual study in an area of Technology Engineering.
Effective Fall Semester 2025
- TNG 291 Selected Topics in Technology Engineering
Fall of every year. Spring of every year. 1 to 4 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Open to freshmen or sophomores in the Technology Engineering Major. Approval of department.
Topics selected to supplement and enrich existing courses and lead to the development of new courses.
Effective Fall Semester 2025
- TNG 490 Independent Study in Technology Engineering
Fall of every year. Spring of every year. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. R: Open to juniors or seniors in the Technology Engineering Major. Approval of department.
Supervised individual study in an area of Technology Engineering
Effective Fall Semester 2025
- TNG 491 Selected Topics in Technology Engineering
Fall of every year. Spring of every year. 1 to 4 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Open to juniors or seniors in the Technology Engineering Major. Approval of department.
Topics selected to supplement and enrich existing courses and lead to the development of new courses.
Effective Fall Semester 2025

DEPARTMENT OF FOOD SCIENCE AND HUMAN NUTRITION

- FSC 870 Applied Project in Food Regulatory Affairs
Fall of every year. Spring of every year. Summer of every year. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. RB: Open to degree-seeking graduate students admitted to the master's program in food regulatory affairs who have completed at least 24 credits for their food regulatory affairs degree. R: Open to master's students in the Department of Food Science and Human Nutrition. Approval of department.
Application of research, theoretical, or practical problem in food regulatory affairs.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Fall Semester 2025

- HNF 850 Nutrition and Adult Mental Health
Spring of every year. 3(3-0) RB: Undergraduate degree in Dietetics R: Open to master's students in the College of Agriculture and Natural Resources or in the Department of Food Science and Human Nutrition or in the Nutrition and Dietetics Major or approval of department.
Explores the intersection of where nutrition, food and the registered dietitian plays a role in supporting individuals with mental and behavioral health related diagnoses and care settings.
Effective Spring Semester 2026

DEPARTMENT OF FORESTRY

- FOR 838 Forest Resource Economics and Finance
Spring of every year. 1(1-0) R: Open to graduate students in the Department of Forestry .
Basic economic and social science principles and techniques that govern human consumption and production of forest resources, including investment and benefit-cost. Offered first half of semester.
Effective Spring Semester 2025
- FOR 845 Nature and Health
Spring of every year. 3(3-0) RB: Prior coursework in social science or health-related disciplines.
Multidisciplinary theories, concepts, and methods for understanding contributions of nature to human health and well-being. Application of environmental justice principles to address inequities in access to nature and health disparities.
Effective Spring Semester 2026

DEPARTMENT OF HISTORY

- HST 255 American Cinema and the American Century
Fall of every year. Summer of every year. 3(3-0)
History, evolution and transformation of the film industry in the extended twentieth century. From penny arcades and nickelodeons to the leading section of the global entertainment industry.
Social and economic circumstances shaping developments in the film industry. Representations of race, gender and class in motion pictures. Production, distribution, consumption and reception of motion pictures in specific historical periods.
Effective Spring Semester 2026

COLLEGE OF HUMAN MEDICINE

- HM 562 Medical School III
Summer of every year. 13(13-0) A student may earn a maximum of 26 credits in all enrollments for this course. P: HM 553 R: Open to graduate-professional students in the College of Human Medicine.
The beginning of an interdisciplinary, patient centered experience, integrating necessary biomedical and social sciences and humanities with clinical skills and professional development, with clinical rotations.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Summer Semester 2026
- HM 563 Medical School IV
Fall of every year. 13(13-0) A student may earn a maximum of 26 credits in all enrollments for this course. P: HM 562 R: Open to graduate-professional students in the College of Human Medicine.
The continuation of an interdisciplinary, patient centered experience, integrating necessary biomedical and social sciences and humanities with clinical skills and professional development, with clinical rotations.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Fall Semester 2026

- HM 564 Integrated Topics in Human Medicine
Spring of every year. 6(6-0) A student may earn a maximum of 12 credits in all enrollments for this course. P: HM 563 R: Open to graduate-professional students in the College of Human Medicine.
Human organ system/topic rotations integrating necessary biomedical and social sciences and humanities with clinical skills and professional development.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Spring Semester 2027
- HM 565 Integrated Medical School III
Summer of every year. 16(16-0) A student may earn a maximum of 32 credits in all enrollments for this course. P: HM 553 R: Open to graduate-professional students in the College of Human Medicine.
The beginning of an interdisciplinary, patient centered experience, integrating necessary biomedical and social sciences and humanities with clinical skills and professional development. Incorporates clinical and human organ system/topic rotations.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Summer Semester 2026
- HM 566 Integrated Medical School IV
Fall of every year. 16(16-0) A student may earn a maximum of 32 credits in all enrollments for this course. P: HM 565 R: Open to graduate-professional students in the College of Human Medicine.
The continuation of an interdisciplinary, patient centered experience, integrating necessary biomedical and social sciences and humanities with clinical skills and professional development. Incorporates clinical and human organ system/topic rotations.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Fall Semester 2026
- HM 603 Transition to Clerkships
Spring of every year. Summer of every year. 1 credit. P: HM 549 or HM 563 or HM 565 R: Open to graduate-professional students in the College of Human Medicine.
Core knowledge and skills for the medical student entering the clinical clerkship years.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Spring Semester 2027
- HM 634 Indigenous Community Health
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 18 credits in all enrollments for this course. P: HM 556 R: Approval of college.
Patient centered and community-based experience in Indigenous medicine.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.
Effective Spring Semester 2023

- HM 648 Care of Migrant and Seasonal Agricultural Workers Elective
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 18 credits in all enrollments for this course. P: FM 641 or MED 641 or OGR 641 or PHD 641 or PSC 641 or SUR 641 R: Approval of college.
Mobile health experience addressing health disparities faced by migrant and seasonal agricultural workers. Proficiency in medical Spanish is a requirement.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.
Effective Fall Semester 2024
- HM 673 Transition to Residency
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: HM 652 and FM 641 and PHD 641 and MED 641 and PSC 641 and OGR 641 and SUR 651 R: Open to graduate-professional students in the College of Human Medicine.
Practice of skills and knowledge application to the activities of a resident, including common day to day patient care activities and responding to emergencies.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Fall Semester 2028

DEPARTMENT OF KINESIOLOGY

- KIN 910 Issues in Exercise Physiology
Spring of every year. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course.
Selected issues in exercise physiology and related fields of study.
SA: PES 910
Effective Fall Semester 2025
- KIN 930 Issues in Biomechanical Aspects of Physical Activity
Spring of every year. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. RB: KIN 830
Selected issues of biomechanical analyses of sport and physical activity.
SA: PES 930
Effective Fall Semester 2025
- KIN 950 Current Issues in the Design and Evaluation of Physical Activity Programs
Fall of every year. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course.
Selected issues in the design and evaluation of physical activity programs.
SA: PES 950
Effective Fall Semester 2025

MSU COLLEGE OF LAW

- LAW 631Z Public Defender Clinic II
On Demand. 0 to 6 credits. P: LAW 631X R: Open to Law students in the MSU College of Law.
Continuation of LAW 631X.
Effective Summer Semester 2025

DEPARTMENT OF LINGUISTICS, LANGUAGES AND CULTURES

- LLT 491 Topics in Second Language Learning and Teaching
Fall of every year. Spring of every year. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
Selected topics and issues in second language research and teaching. Course can be repeated with different topics.
Effective Fall Semester 2025

COLLEGE OF NATURAL SCIENCE

- HBIO 300 Special Topics in Human Biology
Fall of every year. Spring of every year. 1 to 3 credits. A student may earn a maximum of 4 credits in all enrollments for this course. P: HBIO 295 R: Open to sophomores or juniors or seniors in the Human Biology Major.
Exploration of contemporary and emerging issues in biomedical and health sciences.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Fall Semester 2025

COLLEGE OF OSTEOPATHIC MEDICINE

- OST 587 Directed Study in Human Prosection
Fall of every year. Spring of every year. Summer of every year. 1 to 15 credits. A student may earn a maximum of 15 credits in all enrollments for this course. P: OST 510 or approval of college R: Open to graduate-professional students in the College of Osteopathic Medicine.
Prosection of selected regions and isolated structures of preserved human cadavers. Oral presentation.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.
Effective Summer Semester 2025
- OST 588 I Independent Study in Clinical Human Morphology
Fall of every year. Spring of every year. Summer of every year. 1 to 15 credits. A student may earn a maximum of 15 credits in all enrollments for this course. P: OST 510 R: Open to graduate-professional students in the College of Osteopathic Medicine.
Independent study of a specific topic from gross anatomy, histology, radiological anatomy, cytology, neuroscience, or embryology.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.
Effective Summer Semester 2025
- OST 630 Psychiatry and Behavioral Science Clerkship
Fall of every year. Spring of every year. Summer of every year. 1.5 to 30 credits. 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.
Supervised practice with in-patient, out-patient, emergency, and community mental health services.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.
Effective Summer Semester 2025
- OST 631 Adult Psychiatry Clerkship
Fall of every year. Spring of every year. Summer of every year. 1.5 to 30 credits. 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. Not open to students with credit in PSC 609.
Experience in psychiatry in clinical settings with adults.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.
Effective Summer Semester 2025

- OST 632 Child Psychiatry Clerkship
Fall of every year. Spring of every year. Summer of every year. 1.5 to 30 credits. 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. Not open to students with credit in PSC 610.
Experience in psychiatry in clinical settings with child patients and their families.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.
Effective Summer Semester 2025
- OST 633 Addiction Psychiatry Clerkship
Fall of every year. Spring of every year. Summer of every year. 1.5 to 30 credits. A student may earn a maximum of 30 credits in all enrollments for this course. RB: OST 630 R: Open to graduate-professional students in the College of Osteopathic Medicine. Not open to students with credit in PSC 611.
Knowledge and skills in psychopathology, psychiatric diagnosis, psychiatric therapies and prevention with addiction patients and their families.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.
Effective Summer Semester 2025
- OST 634 Geriatric Psychiatry Clerkship
Fall of every year. Spring of every year. Summer of every year. 1.5 to 30 credits. A student may earn a maximum of 30 credits in all enrollments for this course. RB: OST 630 R: Open to graduate-professional students in the College of Osteopathic Medicine. Not open to students with credit in PSC 612.
Knowledge and skills in psychopathology, psychiatric diagnosis, psychiatric therapies and prevention of psychiatric illness with geriatric patients and their families.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.
Effective Summer Semester 2025
- OST 640 Radiology Clerkship
Fall of every year. Spring of every year. Summer of every year. 1.5 to 30 credits. 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. Not open to students with credit in RAD 609.
Diagnostic imaging consultation. Participation in image interpretation and observation in hospital or out-patient radiology setting. Radiological procedure guideline and patient safety and comfort. Complications of radiological procedures.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.
Effective Summer Semester 2025
- OST 641 Interventional Radiology
Fall of every year. Spring of every year. Summer of every year. 1.5 to 30 credits. 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. Not open to students with credit in RAD 612.
Fundamentals of radiation biology, diagnostic and therapeutic techniques, safety, and follow-up of interventional radiology procedures.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.
Effective Summer Semester 2025

OST 670 Directed Study in Clinical Prosection
Fall of every year. Spring of every year. Summer of every year. 1.5 to 30 credits. A student may earn a maximum of 30 credits in all enrollments for this course. P: OST 510 R: Open to graduate-professional students in the College of Osteopathic Medicine. Not open to students with credit in ANTR 685.
Anatomical prosection and body-region specific pathologies.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.
Effective Summer Semester 2025

OST 671 Pathology Clerkship
Fall of every year. Spring of every year. Summer of every year. 1.5 to 30 credits. 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. Not open to students with credit in HM 610.
Anatomic and clinical pathology with emphasis on clinical-pathological correlation. Conducted in pathology departments of affiliated hospitals.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.
Effective Summer Semester 2025

DEPARTMENT OF RADIOLOGY

ANTR 354L Human Gross Anatomy Model Laboratory
Fall of every year. Spring of every year. 1(0-2) P: ANTR 350 or concurrently
An introductory, structured survey of human, regional gross anatomy using anatomical models, medical imaging, and multimedia for students in allied medical fields. Usage and pronunciation of medical terminology.
Effective Fall Semester 2025

COLLEGE OF SOCIAL SCIENCE

SSC 190 Thriving Together: First Year Success and Belonging in the College of Social Science
Fall of every year. 2(2-0) R: Open to freshmen in the College of Social Science.
Navigating the college transition, building a sense of belonging, fostering independence and responsibility, strengthening academic skills, leveraging campus resources, promoting wellness and resilience, and engaging in social and personal growth.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Fall Semester 2026

DEPARTMENT OF SURGERY

SUR 651 Surgery Clerkship
Fall of every year. Spring of every year. Summer of every year. 9 credits. P: HM 549 or HM 556 or HM 564 or HM 566 R: Open to graduate-professional students in the College of Human Medicine.
Diagnosis and management of common patient problems in the general surgical and trauma setting.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Spring Semester 2027

DEPARTMENT OF THEATRE

- DAN 494 Performance Tour
Fall of odd years. 3(1-4) C: DAN 351 concurrently or DAN 352 concurrently
Rehearsal for and participation in various departmental touring productions.
Effective Fall Semester 2025
- THR 103 Voice for Musical Theatre
Fall of every year. 1(0-2) A student may earn a maximum of 6 credits in all enrollments for this course. R: Open to undergraduate students in the Musical Theatre minor or approval of department.
Musical theatre singing techniques for developing vocal awareness in acting the song through group study.
Effective Fall Semester 2025
- THR 203 Individual Voice for Musical Theatre
Fall of every year. Spring of every year. 1(0-2) A student may earn a maximum of 6 credits in all enrollments for this course. P: THR 103 R: Open to students in the Musical Theatre minor. Approval of department.
Musical theatre singing techniques for developing vocal awareness in acting the song through individual study.
Effective Fall Semester 2025
- THR 209 Improvisation for Actors
Fall of odd years. 2(0-4) P: THR 101 or THR 101N R: Open to undergraduate students in the Department of Theatre. Not open to students with credit in THR 208.
Principles and processes of improvisation, focused on applying concepts to performance
Effective Fall Semester 2025
- THR 309 Advanced Improvisation for Actors
On Demand. 2(0-4) P: THR 208 or THR 209 Not open to students with credit in THR 308.
Successful methods of improvisation across a variety of forms
Effective Fall Semester 2025
- THR 337 Compositing And Special Effects for Stage and Screen
Fall of odd years. 3(2-2) A student may earn a maximum of 6 credits in all enrollments for this course. RB: THR 219 or CAS 112 Not open to students with credit in THR 837.
Design and technical aspects of motion graphics, animation and compositing for stage and screen.
Effective Fall Semester 2025
- THR 366 Theatrical Stage Makeup
Spring of every year. 3(2-2) RB: THR 212 Not open to students with credit in THR 866.
Theory and application of two-dimensional and three-dimensional make-up for the stage.
Effective Fall Semester 2025
- THR 814 Stagecraft: Scenic Construction Techniques
Fall of every year. 3(2-2) A student may earn a maximum of 6 credits in all enrollments for this course. R: Open to graduate students in the Department of Theatre or approval of department. Not open to students with credit in THR 314.
Tools, materials, and techniques in theatrical scenic construction.
Effective Fall Semester 2025
- THR 837 Compositing And Special Effects for Stage and Screen
Fall of odd years. 3(2-2) A student may earn a maximum of 6 credits in all enrollments for this course. R: Open to graduate students in the Department of Theatre or approval of department. Not open to students with credit in THR 337.
Design and technical aspects of motion graphics, animation and compositing for stage and screen.
Effective Fall Semester 2025

THR 866 Theatrical Stage Makeup
Spring of every year. 3(2-2) R: Open to graduate students in the Department of Theatre or approval of department. Not open to students with credit in THR 366.
Theory and application of two-dimensional and three-dimensional make-up for the stage.
Effective Fall Semester 2025

PART III – COURSE CHANGES

DEPARTMENT OF ART, ART HISTORY, AND DESIGN

- STA 330 ~~Lithography~~ Printmaking: Lithography
Spring of every year. 3(0-6) A student may earn a maximum of 15 credits in all enrollments for this course. P: STA 110 and STA 112 and STA 113 and STA 114
Basic processes of image-making in lithography, including both traditional and contemporary methods. Fundamentals of drawing and design as applied to printmaking, as well as development of personally innovative imagery and concept. Final independent project explores both two and three dimensional applications of print techniques.
Effective Fall Semester 2025
- STA 335 ~~Etching~~ Printmaking: Etching
Fall of every year. 3(0-6) A student may earn a maximum of 15 credits in all enrollments for this course. P: STA 110 and STA 112 and STA 113 and STA 114
Aesthetic principles and techniques such as soft ground, aquatint, dry point, transfer ground and crosshatching.
Effective Fall Semester 2025
- STA 350 ~~Exploration of the Human Figure~~ Sculpture: Exploration of the Human Figure
Fall of every year. Spring of every year. 3(0-6) P: STA 110 and STA 112 and STA 113 and STA 114
Aspects of the human figure studied in relation to artistic media
Effective Fall Semester 2025
- STA 351 ~~Installation and Expanded Media~~ Sculpture: Installation and Expanded Media
Fall of every year. Spring of every year. 3(0-6) P: STA 110 and STA 112 and STA 113 and STA 114
Interdisciplinary approach to studio practice. Exploration of artistic and cultural expression using installation and expanded media.
Effective Fall Semester 2025
- STA 354 ~~Casting~~ Sculpture: Casting
Fall of every year. Spring of every year. 3(0-6) P: STA 110 and STA 112 and STA 113 and STA 114
Casting concepts and techniques as a means of artistic and cultural expression.
Effective Fall Semester 2025
- STA 355 ~~Construction and Fabrication~~ Sculpture: Construction and Fabrication
Fall of every year. Spring of every year. 3(0-6) P: STA 110 and STA 112 and STA 113 and STA 114
Sculptural concepts using methods of construction and fabrication as an approach to artistic and cultural expression.
Effective Fall Semester 2025
- STA 380 ~~Electronic Art~~ EAI: Introduction to Electronic Art
Fall of every year. Spring of every year. 3(0-6) P: STA 110 and STA 112 and STA 113 and STA 114 or approval of department
Using the computer as a tool for making art. Creation of innovative electronic art and new media projects that introduce students to conceptual as well as technical skill sets.
Effective Fall Semester 2025
- STA 384 ~~Experiments in Digital Video~~ EAI: Experiments in Digital Video
Fall of every year. 3(0-6) P: STA 110 and STA 112 and STA 113 and STA 114 or approval of department
Introduction to core skills and concepts used in digital video production, with an emphasis on art-making, conceptual thinking, and experimentation.
Effective Fall Semester 2025

- STA 385 ~~Interactive Environments and Digital Fabrication~~ EAI: Digital Fabrication
Fall of every year. Spring of every year. 3(0-6) P: STA 110 and STA 112 and STA 113 and STA 114 or approval of department
Systems-based approach to design and fabrication of functional experimental art devices, combining principles of mechanical, electronic, software design, robotics, sensors, actuators, and other control devices. Exposure to new paradigms of creative practice and will develop intricate, interdisciplinary group projects.
Effective Fall Semester 2025
- STA 488 ~~Art and Science in the Laboratory~~ EAI: Art and Science in the Laboratory
Fall of every year. 3(3-6) A student may earn a maximum of 6 credits in all enrollments for this course. P: STA 380 or approval of department Not open to students with credit in STA 888.
Introduction to laboratory science through a set of conceptual, technical, and analytical experiments, tools and research practices geared to enable novel artistic practices.
Effective Fall Semester 2025
- STA 820 Painting
Fall of every year. Spring of every year. 2 to 8 credits. A student may earn a maximum of 40 credits in all enrollments for this course. R: Open only to Master of Fine Arts students in Studio Art. Approval of department.
Advanced study in a variety of painting media to foster independent development.
DELETE COURSE
Effective Fall Semester 2025
- STA 840 Ceramics
Fall of every year. Spring of every year. 2 to 8 credits. A student may earn a maximum of 40 credits in all enrollments for this course. R: Open only to Master of Fine Arts students in Studio Art. Approval of department.
Advanced study in ceramics to foster independent development.
DELETE COURSE
Effective Fall Semester 2025
- STA 850 Sculpture
Fall of every year. Spring of every year. 2 to 8 credits. A student may earn a maximum of 40 credits in all enrollments for this course. R: Open only to Master of Fine Arts students in Studio Art. Approval of department.
Advanced study in a variety of three-dimensional media to foster individual development.
DELETE COURSE
Effective Fall Semester 2025
- STA 896 Master of Fine Arts Studio: Integration in Studio Art
Fall of every year. Spring of every year. ~~2 to 8 credits.~~ 2 to 9 credits. A student may earn a maximum of 16 credits in all enrollments for this course. RB: 8 credits STA 895 R: Open to master of fine arts students in the Master of Fine Arts in Studio Art.
Further study in Studio Art focused on the increased integration of form and content. Individual artistic development.
Effective Fall Semester 2025

BIOMEDICAL LABORATORY DIAGNOSTICS PROGRAM

- BLD 838 Clinical Context of Blood Product Management
~~Fall of even years.~~ Spring of odd years. 1(1-0) RB: Experience in transfusion medicine
Effective blood product management in the context of high use, high demand clinical settings.
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 Spring Semester 2025

DEPARTMENT OF CHEMISTRY

- CEM 142 General and Inorganic Chemistry
Fall of every year. Spring of every year. Summer of every year. ~~3(4-0)~~ 4(4-0) P: CEM 141 or CEM 151 or CEM 181H or LB 171 Not open to students with credit in CEM 182H or CEM 152 or LB 172.
~~Kinetics; gaseous equilibria; acids and bases; pH; buffers; hydrolysis; titrations; heterogeneous equilibria; thermodynamics; redox and electrochemistry; transition metal chemistry; nuclear chemistry; main group chemistry.~~ Thermodynamics; solutions; kinetics; gaseous equilibria; acids and bases; pH; buffers; hydrolysis; titrations; aqueous equilibria; redox
Effective Fall Semester 2025
- CEM 152 Principles of Chemistry
Spring of every year. ~~3(4-0)~~ 4(4-0) P: CEM 151 or CEM 181H or LB 171 Not open to students with credit in CEM 182H or LB 172.
Gases, liquids, and solids; thermodynamics; changes of state; solutions and colligative properties; chemical equilibria; acids, bases, and aqueous equilibria; kinetics; redox reactions and electrochemistry; nuclear chemistry.
Effective Fall Semester 2025
- CEM 251 Organic Chemistry I
Fall of every year. Spring of every year. Summer of every year. ~~3(4-0)~~ 4(4-0) P: CEM 141 or CEM 151 or CEM 181H or LB 171 RB: CEM 142 or CEM 152 or CEM 182H or LB 172 Not open to students with credit in CEM 351.
Common classes of organic compounds including their nomenclature, structure, bonding, reactivity, and spectroscopic characterization.
Effective Fall Semester 2025
- CEM 252 Organic Chemistry II
Fall of every year. Spring of every year. Summer of every year. ~~3(4-0)~~ 4(4-0) P: CEM 251 or LB 271 Not open to students with credit in CEM 352.
Continuation of CEM 251 with emphasis on polyfunctional compounds, particularly those of biological interest.
Effective Fall Semester 2025
- CEM 351 Organic Chemistry I
Fall of every year. ~~3(4-0)~~ 4(4-0) P: CEM 152 or CEM 182H or CEM 142 or LB 172
Structure, bonding, and reactivity of organic molecules.
Effective Fall Semester 2025
- CEM 352 Organic Chemistry II
Spring of every year. ~~3(4-0)~~ 4(4-0) P: CEM 351
Carboxylate derivatives. Conjugation. Aromaticity. Amino acids. Proteins. Carbohydrates. Nucleic acids.
Effective Fall Semester 2025

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

- CE 305 Introduction to Structural Analysis
Fall of every year. Spring of every year. 3(3-0)-P: ~~ME 222 and (CE 273 or concurrently) and (CE 274 or concurrently)~~ P: ME 222 and (CE 273 or concurrently) and (CE 274 or concurrently) and CE 271 R: Open to juniors or seniors in the Department of Civil and Environmental Engineering.
Theory of structural analysis for statically determinate structures. Qualitative structural analysis and behavior. Load estimation and placement. Introduction to structural analysis computer software. Introduction to statically indeterminate structures.
Effective Fall Semester 2025

- CE 312 Soil Mechanics
Fall of every year. Spring of every year. 4(3-3)-P: ~~ME 222 and (CE 273 or concurrently) and (CE 274 or concurrently)~~ P: (ME 222 and (CE 273 or concurrently) and (CE 274 or concurrently) and (CE 271 or concurrently)) and completion of Tier I writing requirement R: Open to juniors or seniors in the Department of Civil and Environmental Engineering and open to juniors or seniors in the Biosystems Engineering major.
Engineering properties of soil and their measurement. Effective-stress concept. Permeability and seepage. Compaction. Consolidation, shear strength, and stress-strain behavior.
Effective Fall Semester 2025
- CE 321 Introduction to Fluid Mechanics
Fall of every year. Spring of every year. 4(3-2)-P: ~~(MTH 235) and CE 221 and Completion of Tier I Writing Requirement~~ P: (MTH 235) and CE 221 and ((CE 271 or (BE 230 or concurrently)) and completion of Tier I writing requirement) R: ~~Open to juniors or seniors in the Department of Civil and Environmental Engineering or in the Biosystems Engineering Major. R: Open to juniors or seniors in the Department of Biosystems and Agricultural Engineering or in the Biosystems Engineering Major or in the Civil Engineering Major or in the Environmental Engineering Major.~~ Not open to students with credit in ME 332.
Fluid properties, fluid statics, fluids in motion. Conservation of mass, energy, and momentum. Dimensional analysis and similitude. Internal and external flows. Applications.
Effective Fall Semester 2025
- CE 337 Civil Engineering Materials
Fall of every year. Spring of every year. 4(3-3)-P: ~~(ME 222 or concurrently) and (CE 273 or concurrently) and (CE 274 or concurrently)~~ P: ((ME 222 or concurrently) and (CE 273 or concurrently) and (CE 274 or concurrently) and CE 271) and completion of Tier I writing requirement R: Open to juniors or seniors in the Department of Civil and Environmental Engineering.
Common civil engineering construction and paving materials: aggregates, inorganic cements, asphalts, concretes, wood, and steel. Composition, structure, physical and mechanical properties, tests, and production mix design.
Effective Fall Semester 2025
- CE 341 Transportation Engineering
Fall of every year. Spring of every year. 3(3-0)-P: ~~((MTH 234 or concurrently) or (MTH 254H or concurrently) or (LB 220 or concurrently)) and (((CE 273 or concurrently) and (CE 274 or concurrently)) and completion of Tier I writing requirement) and ((CE 372 or concurrently) or (STT 200 or concurrently) or (STT 201 or concurrently))~~ P: ((MTH 234 or concurrently) or (MTH 254H or concurrently) or (LB 220 or concurrently)) and (((CE 273 or concurrently) and (CE 274 or concurrently) and CE 271) and completion of Tier I writing requirement) and (CE 372 or concurrently) R: ~~Open to juniors or seniors in the Department of Civil and Environmental Engineering or in the Urban and Regional Planning Major. R: Open to juniors or seniors in the Department of Civil and Environmental Engineering.~~
Fundamentals of transportation planning, traffic flow and level-of-service, traffic signal design, geometric design of highways, and highway safety.
SA: CE 346
Effective Fall Semester 2025
- ~~CE 461~~
~~CE 361~~ Computational Methods in Civil Engineering
Spring of every year. 3(3-2) 3(3-0)-P: ~~(EGR 102 and CE 221) and (MTH 235 or MTH 340 or MTH 347H)~~ P: (EGR 102 and CE 221 and CE 271) and (MTH 235 or MTH 340 or MTH 347H) R: Open to juniors or seniors or graduate students in the Civil Engineering Major. Not open to students with credit in ME 361.
Theoretical, numerical, and computational methods for civil engineering problems. Physical modeling, numerical techniques, and programming methods. Focus on civil engineering dynamics, solving systems of differential equations, and visualizing the results.
SA: CE 390 SA: CE 390, CE 461
Effective Fall Semester 2025

- CE 400 Structural Mechanics
Fall of every year. ~~3(3-0) P: CE 305~~ P: CE 305 and CE 361 R: Open to juniors or seniors or graduate students in the College of Engineering.
Matrix methods of structural analysis. Flexibility method. Direct stiffness method for plane structures. Elastic supports, inclined supports, member releases and non-prismatic members.
Application software.
Effective Fall Semester 2025
- CE 405 Design of Steel Structures
Spring of every year. 3(3-0) P: CE 305 R: Open to juniors or seniors or graduate students in the Department of Civil and Environmental Engineering or in the College of Engineering.
Design of steel beams, columns, tension members and connections. Stability and plastic strength.
Effective Fall Semester 2025
- CE 406 Design of Concrete Structures
Fall of every year. 3(3-0) P: CE 305 and CE 337 R: Open to juniors or seniors or graduate students in the Department of Civil and Environmental Engineering or in the College of Engineering.
Design of reinforced concrete beams, slabs, columns and footings.
Effective Fall Semester 2025
- CE 407 Materials Engineering: Properties, Selection and Processing
Spring of every year. 3(3-0) P: CE 221 and ME 222 RB: MSE 250 ~~R: Open to juniors or seniors in the Chemical Engineering Major or in the Mechanical Engineering Major or in the Civil Engineering Major.~~ R: Open to juniors or seniors.
General families of materials, materials design process for civil and environmental engineering problems, structural materials properties, processing methods and environment, microstructure of materials, structural materials selection by utilizing bubble charts.
Effective Fall Semester 2025
- CE 418 Geotechnical Engineering
Fall of every year. 3(3-0) ~~P: CE 312 and (GLG 201 or GLG 301)~~ P: (CE 312) and (GLG 201 or GLG 203) R: Open to juniors or seniors or graduate students in the College of Engineering.
Shallow foundation design: bearing capacity, stress distribution, and settlement analysis. Pile foundations. Design of retaining structures, including rigid walls, braced excavations, and sheet-pile walls. Stability of slopes and embankments.
Effective Fall Semester 2025
- CE 431 Design and Analysis for New and Rehabilitated Pavements
Fall of every year. ~~4(4-0)~~ 3(3-0) P: CE 337 R: Open to juniors or seniors or graduate students in the College of Engineering.
~~Highway and airfield pavement structural design. Performance measures. Failure mechanisms. Popular thickness design procedures for new and rehabilitated pavements. Design considerations for surface friction, pavement joints, and drainage.~~ Highway and airfield pavement structural design. Performance measures. Failure mechanisms. Current thickness design procedures for new and rehabilitated pavements. Design considerations for surface roughness, pavement joints, and drainage.
Effective Fall Semester 2025
- CE 444 Principles of Traffic Engineering
Fall of every year. 3(3-0) P: CE 341 R: Open to juniors or seniors or graduate students in the Civil Engineering Major.
Driver and vehicle characteristics affecting traffic flow and safety. Speed, density, capacity relationships. Signal control in street networks. Freeway management systems. Risk management and liability.
Effective Fall Semester 2025

- CE 448 Transportation Planning
Spring of every year. 3(3-0) P: CE 341
Transportation planning process and procedures. Estimation of travel demand using traditional models of trip generation, trip distribution, modal split, and traffic assignment. Use of "quick-response" procedures. Traffic impact of new facilities.
Effective Fall Semester 2025
- CE 449 Highway Design
~~Fall of every year.~~ Spring of every year. 3(3-0) P: CE 341 R: Open to juniors or seniors or graduate students in the College of Engineering.
~~Geometric design of highways. Operation, capacity, safety, and geometric features. Alignment, drainage and pavement design. Use of CAD systems in preparing contract plans. Geometric design of highways. Design controls and standards, alignments, cross-sections, sight distances, highway capacity, safety, traffic control, and drainage. Use of CAD systems~~
Effective Fall Semester 2025
- CE 471 Construction Engineering - Equipment, Methods and Planning
Spring of every year. 3(3-0) P: (CE 305 and CE 312 and CE 337) or (CMP 305 and CMP 322) ~~R: Open to juniors or seniors or graduate students in the College of Engineering or in the Department of Management or in the Construction Management major. R: Open to juniors or seniors or graduate students in the Department of Civil and Environmental Engineering or in the School of Planning, Design and Construction.~~
Engineering and construction fundamentals of earthwork operations, moving of materials, concrete construction, formwork, false work, and other temporary structures. Relationship to a construction project's constructability, cost, and schedule.
Effective Fall Semester 2025
- CE 473 Smart and Sustainable Building Design and Operations
~~Spring of odd years.~~ Fall of every year. 3(3-0) ~~Interdepartmental with Environmental Engineering~~ P: CE 371 or approval of department
Elements of the design and operation of smart and sustainable buildings. Current and future energy-related challenges of existing buildings.
Effective Fall Semester 2025
- CE 485 Landfill Design
Spring of every year. 3(3-0) ~~Interdepartmental with Environmental Engineering~~ P: ENE 280 and CE 324 P: CE 321 RB: CE 312
Geotechnical and environmental design of solid waste landfills.
Effective Fall Semester 2025
- CE 495 Senior Design in Civil and Environmental Engineering
Fall of every year. Spring of every year. 4(2-3) ~~P: (CE 274 and CE 371 and CE 372) and (ENE 421 or ENE 422 or ENE 483 or ENE 489 or CE 418 or CE 431 or CE 405 or CE 406 or CE 444 or CE 449) and (ENE 421 or ENE 422 or ENE 483 or ENE 489 or CE 405 or CE 406 or CE 418 or CE 431 or CE 444 or CE 449) and (ENE 421 or ENE 422 or ENE 483 or ENE 489 or CE 405 or CE 406 or CE 418 or CE 431 or CE 444 or CE 449) and (ENE 421 or ENE 422 or ENE 483 or ENE 489 or CE 405 or CE 406 or CE 418 or CE 431 or CE 444 or CE 449) and (CE 361 or ENE 380)~~ R: Open to seniors in the Civil Engineering Major or in the Environmental Engineering Major.
Preliminary design. Application of design concepts in civil engineering. Integrated design solutions using geotechnical, hydrological, pavement, structural, environmental, and transportation considerations. Planning the design process. Design Specifications. Cost. Written and oral presentations. Issues of professional practice.
Effective Fall Semester 2025

- CE 496 Review for the CE and ENE Fundamentals of Engineering Exams
Fall of every year. Spring of every year. 1(1-0)-P: ~~CE 495 or concurrently~~ P: (CE 495 or concurrently) or (BE 485 or concurrently) R: Open to seniors or graduate students in the Biosystems Engineering Major or in the Civil Engineering Major or in the Environmental Engineering Major or in the Chemical Engineering Major.
~~Review of general, civil, and environmental engineering topics in preparation for sitting the NCEES Fundamentals of Engineering Exam~~ Review of general, civil, and environmental engineering topics in preparation for the NCEES Fundamentals of Engineering Exam
~~Request the use of the Pass-No-Grade (P-N) system.~~
Effective Fall Semester 2025
- CE 374
ENE 371 Sustainable Civil and Environmental Engineering Systems
Fall of every year. Spring of every year. 3(3-0)-~~Interdepartmental with Environmental Engineering~~ P: (MTH 234 or concurrently) or (LB 220 or concurrently) or (MTH 254H or concurrently) R: Open to juniors or seniors in the Applied Engineering Sciences Major or in the Energy Minor or in the Civil Engineering Major or in the Environmental Engineering Major.
Principles and tools of sustainable design and engineering economics in Civil and Environmental Engineering.
SA: CE 272
Effective Fall Semester 2025
- ENE 280
ENE 380 Principles of Environmental Engineering and Science
Fall of every year. Spring of every year. ~~Fall of every year.~~ 3(3-0)-~~Interdepartmental with Civil Engineering~~ P: ~~(CEM 141 or CEM 151 or LB 171) and (MTH 133 or MTH 153H or LB 119)~~ P: (CEM 142 or CEM 152 or LB 172) and (MTH 133 or MTH 153H or LB 119) and CE 271
~~Analysis of environmental problems and engineering solutions based on physical, chemical, and biological processes. Mass balance modeling of contaminant fate, transport and removal in environmental media.~~ Physical, chemical and biological processes related to environmental science and engineering. Analysis of environmental problems and solutions. Mass balance modeling of contaminant fate, transport and removal in environmental media engineering.
SA: ENE 280
Effective Fall Semester 2025
- ENE 481
ENE 381 Environmental Chemistry: Equilibrium Concepts Environmental Chemistry
Fall of every year. 3(3-0)-~~Interdepartmental with Civil Engineering~~ P: ~~{{(CEM 141 and CEM 142) or (CEM 151 and CEM 152) or (CEM 181H and CEM 182H) or (LB 171 and LB 172)} and (ENE 280 or BE 230 or GLG 201 or GLG 301 or approval of department) and ((CHE 201 or concurrently) or (CEM 251 or concurrently))~~ P: {{(CEM 141 and CEM 142) or (CEM 151 and CEM 152) or (CEM 181H and CEM 182H) or (LB 171 and LB 172)} and ((ENE 380 or concurrently) or BE 230 or GLG 201 or GLG 203 or approval of department) and ((CHE 201 or concurrently) or (CEM 251 or concurrently)) R: Open to sophomores or juniors or seniors or graduate students in the Department of Biosystems and Agricultural Engineering or in the Department of Chemical Engineering and Materials Science or in the Department of Civil and Environmental Engineering or in the Department of Earth and Environmental Sciences.
Chemistry of environmental systems and air, water, and soil pollutants as applied to environmental engineering.
SA: ENE 481
Effective Fall Semester 2025
- ENE 421 Engineering Hydrology
~~Fall of every year.~~ Fall of every year. Spring of every year. 3(3-0)-~~Interdepartmental with Civil Engineering~~ P: ~~(CE 321) and (GLG 201 or GLG 301) and (CE 372 or STT 351)~~ P: (CE 321) and (GLG 201 or GLG 203) and (CE 372 or STT 201 or STT 231 or STT 351) R: Open to juniors or seniors or graduate students in the College of Engineering or in the College of Natural Science or in the Department of Plant, Soil and Microbial Sciences.
Hydrologic design of storm water systems. Equilibrium hydrograph analysis, unit hydrographs, infiltration, hydrograph synthesis, and reservoir routing. Groundwater: Darcy's law, flow nets, well hydraulics, design of capture wells.
Effective Fall Semester 2025

- ENE 422 Applied Hydraulics
Spring of every year. ~~3(2-2)-Interdepartmental with Civil Engineering~~ P: CE 321 or ME 332 R: Open to juniors or seniors or graduate students in the College of Engineering.
Fundamentals of open-channel flow. Rapidly and gradually varied nonuniform flow analysis. Confined flows past submerged bodies, in pipe networks, and in turbo machinery. Design applications.
Effective Fall Semester 2025
- ENE 472 Life Cycle Assessment of Energy Technologies
~~Spring of every year. Fall of every year. 3(2-2)-Interdepartmental with Civil Engineering~~ P: CE 371 or approval of department P: ENE 371 or approval of department R: Open to students in the College of Engineering.
Use of life-cycle assessment (LCA) for energy technologies to evaluate trade-offs between various energy options and guide energy choices.
Effective Fall Semester 2025
- ENE 480 Environmental Measurements Laboratory
Fall of every year. ~~2(1-3)-Interdepartmental with Civil Engineering~~ 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 P: (CEM 161 or CEM 185H or LB 171L) and ENE 380 and (CEM 142 or CEM 152 or CEM 182H or LB 172) and (ENE 381 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.
Effective Fall Semester 2025
- ENE 483 Water and Wastewater Engineering
Fall of every year. ~~4(3-2)-Interdepartmental with Civil Engineering~~ P: (ENE 280 or BE 230) and (CE 321 or CHE 311) P: (ENE 380 or BE 230) and (CE 321 or CHE 311) R: Open to juniors or seniors or graduate students in the College of Engineering.
Engineering and scientific basis and design of physical, chemical and biological methods for the treatment of drinking water and wastewater. Operation process selection and design. Field trips required.
Effective Fall Semester 2025
- ENE 487 Microbiology for Environmental Science and Engineering
Spring of every year. ~~3(3-0)-Interdepartmental with Civil Engineering~~ P: ENE 280 P: (ENE 380) and completion of Tier I writing requirement
Fundamentals of microbiology. Application of these concepts to environmental processes such as wastewater treatment, human health and bioremediation.
Effective Fall Semester 2025
- ENE 489 Air Pollution: Science and Engineering
Spring of every year. ~~3(3-0)-Interdepartmental with Civil Engineering~~ P: (CEM 141 or CEM 151 or LB 171) and (MTH 133 or MTH 153H or LB 119) and (ENE 280 or BE 230) and (CE 321 or CHE 311) and (CE 372 or CHE 316) and ((ME 201 or concurrently) or (BE 351 or concurrently) or (CHE 321 or concurrently)) P: (CEM 141 or CEM 151 or LB 171) and (MTH 133 or MTH 153H or LB 119) and (ENE 380 or BE 230) and (CE 321 or CHE 311) and (CE 372 or CHE 316) and ((ME 201 or concurrently) or (BE 351 or concurrently) or (CHE 321 or concurrently)) R: Open to juniors or seniors or graduate students in the College of Engineering.
Basic physical and chemical principles governing indoor and atmospheric air pollutant fate, transport and control technologies.
Effective Fall Semester 2025

DEPARTMENT OF COMMUNICATIVE SCIENCES AND DISORDERS

- CSD 830 ~~Fluency Disorders~~ Stuttering
Fall of every year. 3(3-0) R: Open to graduate students in the Department of Communicative Sciences and Disorders.
~~History, theories, symptomatology, diagnosis, and treatment of fluency disorders in children and adults.~~ History, theories, symptomatology, diagnosis, and treatment of stuttering, cluttering, and fluency impairments in children and adults.
SA: ASC 823D, CSD 823D
Effective Spring Semester 2025

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

- CSE 260 Discrete Structures in Computer Science
Fall of every year. Spring of every year. Summer of every year. 4(5-0) ~~P: MTH 133 or MTH 126 or MTH 153H or LB 149~~ P: MTH 124 or MTH 132 or MTH 152H or LB 118
Propositional and first order logic. Equivalence and methods of proof. Basics of counting. Set operations, relations, functions. Grammars and finite state automata. Discrete probability. Applications to computer science and engineering.
SA: CPS 260
Effective Fall Semester 2025
- CSE 380 Information Management and the Cloud
Fall of every year. Spring of every year. 3(3-0) ~~P: CSE 232~~ R: Open to students in the College of Engineering or in the Lyman Briggs Computer Science Coordinate Major or in the Lyman Briggs Computer Science Major. ~~R: Open to students in the College of Engineering or in the Lyman Briggs Computer Science Coordinate Major or in the Lyman Briggs Data Science Coordinate Major or in the Data Science Major.~~
Introduction to information management and cloud computing
Effective Fall Semester 2025
- CSE 402 Biometrics and Pattern Recognition
Fall of every year. 3(3-0) ~~P: (CSE 331) and (STT 351 or STT 380 or STT 430 or STT 441) and MTH 314 and (MTH 234 or MTH 254H or LB 220)~~ P: (CSE 331) and (STT 351 or STT 380 or STT 430 or STT 441) and (MTH 314 or MTH 317H) and (MTH 234 or MTH 254H or LB 220) ~~R: Open to juniors or seniors in the College of Engineering or in the Computer Science Minor or in the Lyman Briggs Computer Science Coordinate Major or in the Lyman Briggs Computer Science Major or in the Data Science Major.~~ R: Open to juniors or seniors in the College of Engineering or in the Lyman Briggs Computer Science Coordinate Major or in the Lyman Briggs Computer Science Major or in the Computer Science Minor or in the Lyman Briggs Data Science Coordinate Major or in the Data Science Major.
Automated techniques used for feature extraction and pattern matching focusing on face, fingerprint and iris recognition.
Effective Fall Semester 2025
- CSE 404 Introduction to Machine Learning
~~Fall of every year.~~ Fall of every year. Spring of every year. 3(3-0) Interdepartmental with Computational Mathematics, Science, & Engineering, Statistics and Probability ~~P: (CSE 331) and (STT 351 or STT 380 or STT 430 or STT 441) and MTH 314~~ P: (CSE 331) and (STT 351 or STT 380 or STT 430 or STT 441) and (MTH 314 or MTH 317H) ~~RB: Basic linear algebra~~ R: Open to juniors or seniors in the College of Engineering or in the Computer Science Minor or in the Lyman Briggs Computer Science Coordinate Major or in the Lyman Briggs Computer Science Major or in the Data Science Major. ~~R: Open to juniors or seniors in the College of Engineering or in the Lyman Briggs Computer Science Coordinate Major or in the Lyman Briggs Computer Science Major or in the Computer Science Minor or in the Data Science Major or in the Lyman Briggs Data Science Coordinate Major.~~
Core principles and techniques for machine learning including algorithms, model design, and programming.
Effective Fall Semester 2025

- CSE 440 Introduction to Artificial Intelligence
~~Fall of every year. Fall of every year. Spring of every year. 3(3-0)-P: (CSE 331) and (MTH 314 or ECE 280) P: (CSE 331) and (MTH 314 or ECE 280 or MTH 317H) R: Open to juniors or seniors in the College of Engineering or in the Computer Science Major or in the Lyman Briggs Computer Science Coordinate Major or in the Lyman Briggs Computer Science Major or in the Data Science Major. R: Open to juniors or seniors in the College of Engineering or in the Lyman Briggs Computer Science Coordinate Major or in the Lyman Briggs Computer Science Major or in the Computer Science Minor or in the Data Science Major or in the Lyman Briggs Data Science Coordinate Major.~~
Fundamental algorithms and methods in intelligent systems and artificial intelligence.
SA: CPS 440
Effective Fall Semester 2025
- CSE 471 Media Processing and Multimedia Computing
~~Spring of every year. Fall of every year. 3(3-0)-P: (CSE 320 or CSE 331 or CSE 335) and (MTH 314 or ECE 280) P: (CSE 320 or CSE 331 or CSE 335) and (MTH 314 or ECE 280 or MTH 317H) R: Open to juniors or seniors in the College of Engineering or in the Computer Science Minor or in the Lyman Briggs Computer Science Coordinate Major or in the Lyman Briggs Computer Science Major.~~
Theory and practice for manipulation of digital images, video, and audio in computer applications.
Effective Fall Semester 2025
- CSE 472 Computer Graphics
~~Spring of every year. 3(3-0)-P: (CSE 331 or CSE 335) and (MTH 314 or ECE 280) P: (CSE 331 or CSE 335) and (MTH 314 or ECE 280 or MTH 317H) R: Open to juniors or seniors in the College of Engineering or in the Computer Science Minor or in the Lyman Briggs Computer Science Coordinate Major or in the Lyman Briggs Computer Science Major.~~
Theory and practice for the generation of two- and three-dimensional imagery.
SA: CPS 472
Effective Fall Semester 2025
- CSE 482 Big Data Analysis
~~Spring of every year. Fall of every year. Spring of every year. 3(3-0)-P: (CSE 331 and CSE 380) and (STT 351 or STT 380 or STT 430 or STT 441) and (MTH 314 or MTH 317H) and (MTH 234 or MTH 254H or LB 220) P: (CSE 331) and (STT 351 or STT 380 or STT 430 or STT 441) and (MTH 314 or MTH 317H) and (MTH 234 or MTH 254H or LB 220) and (CSE 380 or CMSE 381) R: Open to juniors or seniors in the College of Engineering or in the Lyman Briggs Computer Science Coordinate Major or in the Lyman Briggs Computer Science Major or in the Data Science Major. R: Open to juniors or seniors in the College of Engineering or in the Lyman Briggs Computer Science Coordinate Major or in the Lyman Briggs Computer Science Major or in the Computer Science Minor or in the Data Science Major or in the Lyman Briggs Data Science Coordinate Major.~~
Principles and techniques for large-scale data analysis and applications.
Effective Fall Semester 2025

DEPARTMENT OF EARTH AND ENVIRONMENTAL SCIENCES

- GLG 440 Planetary Geology
Spring of every year. 3(2-2) P: GLG 201 and GLG 304 and GLG 321 or approval of department RB: (PHY 232 or PHY 184 or PHY 294H or LB 274) and (MTH 132 or MTH 152H or LB 118)
Surficial and internal properties and processes of planets and their natural satellites, asteroids, comets, and meteorites. Origin, composition, structure, tectonics, volcanism, impact phenomena, atmospheric evolution, atmosphere-surface interactions, and history of solar system bodies.
Results of recent space exploration programs, projects and missions.
DELETE COURSE
Effective Fall Semester 2025

- GLG 470 Solid Earth Geophysics and Geodynamics
Spring of odd years. Spring of even years. 3(3-0)-P: (GLG 201) and (MTH 133 or LB 119 or MTH 153H or MTH 126) and (PHY 183 or PHY 183B or PHY 193H or PHY 233B or LB 273 or PHY 173 or PHY 221 or PHY 241 or PHY 231 or PHY 231C) P: (GLG 201) and (MTH 133 or LB 119 or MTH 153H or MTH 126) and (PHY 183 or PHY 231 or PHY 193H or LB 273 or PHY 221)-RB: (MTH 234 or concurrently) or (LB 220 or concurrently) or (MTH 254H or concurrently)
Theory and applications of solid-earth geophysics including geochronology, geothermics, geomagnetism and paleomagnetism, geodesy and gravity, rheology, and seismology.
SA: GLG 472
Effective Spring Semester 2026

DEPARTMENT OF EDUCATIONAL ADMINISTRATION

- EAD 811 Inquiry and Analysis of Teaching and Learning Data-Informed Instructional Leadership
Fall of every year. 3(3-0)-~~Not open to students with credit in EAD 854.~~
Inquiry and applied research methods and skills. Data-based decision making for instructional improvement. Computer skills for data analysis. Methods of data use for teachers and leaders. Legal and ethical use of data.
Effective Fall Semester 2025
- EAD 812 Inquiry and Analysis of School Organizations Leading Continuous Improvement in Schools
Spring of every year. 3(3-0)-P: ~~EAD 814 Not open to students with credit in EAD 855 or EAD 856.~~
Inquiry and applied research methods and skills. Data-based decision making for organizational improvement. Analyzing schools as rational, natural, and open systems. Methods of data use for school administration. Legal and ethical concerns of data use.
Effective Fall Semester 2025
- EAD 822 Engaging Diverse Students and Families Engaging Diverse Students, Families, and Communities
Fall of every year. 3(3-0)-~~Not open to students with credit in EAD 853B.~~
Comparative and historical analysis of education within the broader social, cultural, and linguistic contexts of schools. Students in contemporary schools. Social problems, social policies, and school practice. School, family, and community relationships.
Effective Fall Semester 2025
- EAD 830 Issues in Urban Education: Racial Achievement Gap
Race, Class, and Education Disparities in U.S. Schooling
Spring of every year. 3(3-0)
Institutional, class, race systemic factors that contribute to the racial achievement gap. Strategies for improving urban schools; uncover areas of study for future research.
Effective Fall Semester 2025
- EAD 921A Educational Leadership and Transformation I
Fall of every year. 2(2-0)
Creating organizational value through leadership. Leading through conflict. Personal and collective leadership development. Connecting schools with civic life. Convening community groups for democratic deliberation.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
SA: EAD 921
Effective Fall Semester 2025

- EAD 922A Analyzing Educational Systems I
Fall of every year. 1(1-0)
Analyzing systems of educational organizations, including schools, local education agencies, and state education agencies. Theory and research on educational organizations to actual cases in order to identify interdependent strengths and weaknesses that support and/or undermine instructional improvement.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
SA: EAD 922
Effective Fall Semester 2025
- EAD 924A Data and Decisions I
Fall of every year. 3(3-0) R: Open to graduate students in the Educational Leadership Major.
Data collection and analysis for school improvement. Decision making criteria. Assessment of resource use and instructional learning outcomes. Data management. Legal and ethical use of data. Communication strategies. Basic quantitative statistics.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
SA: EAD 924
Effective Fall Semester 2025

COLLEGE OF ENGINEERING

- TNG 210 Manufacturing Processes and Prototyping
Fall of every year. Spring of every year. 2(0-4) ~~P: EGR 100 and (ME 280 or concurrently)~~ P: EGR 100 R: Open to students in the Technology Engineering Major.
Large and small scale conventional and additive manufacturing processes as well as electronics and chip manufacturing. Laboratory provides hands-on experiences with machine shop tools selection, use, and safe operation.
Effective Fall Semester 2025
- TNG 220 Electrical Circuits
Fall of every year. Spring of every year. 4(3-2) ~~P: PHY 232 and PHY 252 and MTH 132~~ P: PHY 232 and MTH 132 R: Open to students in the Technology Engineering Major. Not open to students with credit in ECE 201.
Applications and theory of circuits and circuit design including common standard electrical components. Laboratory provides hands-on study of both AC and DC circuits.
Effective Fall Semester 2025
- TNG 310 Advanced Graphic Communications
Fall of every year. Spring of every year. 3(1-4) P: TNG 210 and ME 280 R: Open to students in the Technology Engineering Major. Not open to students with credit in ME 385.
Continuation of graphic communications including electrical schematics, geometric design and tolerancing, electrical and mechanical system design, and the integration of computer aided design, computer aided manufacturing, and computer numerical control.
Effective Spring Semester 2026
- TNG 445 Troubleshooting Mechatronic Systems
Spring of every year. 4(2-4) P: TNG 440 R: Open to students in the Technology Engineering Major.
Concepts, devices, and common practices associated with modern industrial control systems. Emphasis is on testing the output performance of the control system and troubleshooting techniques to address common issues.
Effective Spring Semester 2026

- TNG 450 Hardware Cybersecurity
Fall of every year. ~~3(2-2) P: TNG 322 and TNG 350~~ P: TNG 322 and TNG 355 R: Open to students in the Technology Engineering Major.
Reverse engineering process and how to methodically learn about a system from the ground up. Techniques for observing system components, measuring internal traces, and dumping important system resources and defense techniques.
Effective Fall Semester 2025
- TNG 455 Engineering Secure Hardware and Software
Spring of every year. 4(2-4) P: TNG 355 and TNG 450
Projects centered on the design of a resilient system, defining the attack surface area, and fortifying against potential attacks. Forensic analyses of hardware and software systems.
Effective Spring Semester 2026
- TNG 480 Technology Engineering Capstone (W)
Fall of every year. Spring of every year. 3(1-4) P: (TNG 430) and completion of Tier I writing requirement R: Open to students in the Technology Engineering Major.
Planning and execution of a team project involving the development of an engineered product or system, utilizing knowledge and skills acquired in prior engineering coursework. Project considerations include engineering standards, system constraints, design for customer needs, ethical issues, budget, timing, and safety.
Effective Spring Semester 2026

DEPARTMENT OF FAMILY MEDICINE

- FM 641 ~~Family Medicine Clerkship in the Late Clinical Experience~~ Family Medicine Clerkship
Fall of every year. Spring of every year. Summer of every year. ~~6 credits.~~ 6 to 9 credits. ~~P: HM 556 P: HM 549 or HM 556 or HM 564 or HM 566~~ R: Open to graduate-professional students in the College of Human Medicine.
Clinical experience in which students take primary responsibility for managing the care of patients in a primary care setting under the supervision of attending physicians.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Spring Semester 2027

DEPARTMENT OF FOOD SCIENCE AND HUMAN NUTRITION

- FSC 421 Food Laws and Regulations
~~Spring of odd years. Summer of even years.~~ Summer of every year. 3(3-0) P: HNF 150 or FSC 211 or AFRE 100
Adoption, interpretation, and enforcement of laws and regulations governing food processing and foodservice systems. Impact of regulation on food production, availability, marketing, and safety.
Effective Spring Semester 2025
- FSC 812 Food Laws and Regulations in the European Union
~~Fall of every year.~~ Spring of every year. ~~Fall of every year.~~ 3(3-0) RB: (FSC 810) or food science, law, food safety. international development or related disciplines.
Introduction to the European Union (EU), the role of case law, official controls, the European Food Safety Authority, food labeling, food additives, food fortification, genetically modified foods, organic foods, imports, food safety, inspections, enforcement and compliance, and the role of science in EU food law.
Effective Spring Semester 2025

DEPARTMENT OF FORESTRY

- FOR 128 Practical Computing and Data Science Tools
~~Spring of every year.~~ Fall of every year. 3(2-2)
Foundational skills to work efficiently in a computing environment. Introduction to exploratory data analysis, spreadsheets, and R programming language.
Effective Fall Semester 2025

~~FOR 335~~

~~FOR 435~~

~~Business Innovation Toward a Sustainable BioEconomy~~

~~Fall of every year. 3(3-0) RB: FOR 212 R: Not open to freshmen.~~

~~Role of forest bioproducts in developing sustainable communities. Resource planning and availability for value added bioproducts. Bioproducts supply-chains analysis and principles of life cycle implementation. Role of forest bioproducts in business innovation to develop sustainable businesses and communities. Addresses business principles and practices, entrepreneurial leadership, bioproducts supply-chains analysis and principles of life cycle analysis.~~

~~SA: FOR 335~~

~~Effective Spring Semester 2026~~

FOR 831

~~Forest Biogeochemistry and Global Climate Change~~ Forest Biogeochemistry and Climate Change

~~Fall of every year. Summer of every year. 3(3-1) RB: Background course in ecology~~

~~Biogeochemical cycling of carbon and nutrients within forest ecosystems. Disturbance, harvesting and forest management effects on the exchange of greenhouse gases between forest ecosystems and the atmosphere.~~

~~Effective Summer Semester 2025~~

DEPARTMENT OF GEOGRAPHY, ENVIRONMENT, AND SPATIAL SCIENCES

GEO 414

GEO 406

~~Stream Systems and Landforms~~ Geomorphology of River and Coastal Systems

~~Spring of even years. Spring of odd years. 3(3-0) Interdepartmental with Geological Sciences RB:~~

~~GEO 206 or GEO 306 or GLG 201 or GLG 431 R: Open to sophomores or juniors or seniors or graduate students.~~

~~Themes associated with stream systems. Evolution of drainage basins and channel hydrology. The nature of flowing water, stream discharge, and flooding. Controls of stream behavior.~~

~~Channel patterns and landform development. Character of Michigan stream systems. Field project. Topics associated with the geomorphology of coastal and river systems. Processes and responses of fluvial and coastal systems to natural and anthropogenic drivers (e.g., development, sea level rise, climate change). Emphasis on field methods, data analysis, and coastal and stream management applications. Optional class projects using data collected in the field.~~

~~SA: GEO 411~~

~~Effective Spring Semester 2026~~

SCHOOL OF HOSPITALITY BUSINESS

HB 105

Service Management Principles

Fall of every year. Spring of every year. 2(2-0) R: Open to students in the Hospitality Business Major.

Concept of service organizations. Key issues in delivering and managing services. Service intangibility. Needs, expectations, habituation and customer satisfaction. Prepurchase and postpurchase behaviors.

DELETE COURSE

Effective Summer Semester 2025

HB 201

Hospitality Professional Development

Fall of every year. Spring of every year. 1(1-0) R: Open to undergraduate students in the Hospitality Business Major.

Self-assessment of personal and professional interests, skills, and values. Development of professional identity. Career exploration, planning, and development. Building professional relationships through networking and mentorships. Workplace competencies including diversity and multicultural awareness, interpersonal communication, team membership, and leadership.

DELETE COURSE

Effective Summer Semester 2025

HB 210

Casino Operations and Management

~~Fall of every year. Spring of every year.~~ Spring of every year. 3(3-0) R: Open to students in the Hospitality Business Major.

Social issues of gaming, casino games of chance, management controls and marketing plans.

Effective Summer Semester 2025

- HB 267 Management of Food and Beverage Systems
Fall of every year. Spring of every year. 3(3-0) RB: HB 100 or concurrently R: Not open to seniors.
Principles of menu planning, designing and pricing. Control of food and beverage products during purchasing, receiving, storing and issuing. Labor control principles. Control of revenue during sale. Food and beverage segment overview.
DELETE COURSE
Effective Summer Semester 2025
- HB 280 Introduction to Event Management
~~Spring of every year.~~ Fall of every year. Spring of every year. 3(3-0) R: Open to students in the Hospitality Business Major.
Key elements of planning a meeting or event. Understanding the process of planning meetings and events, including key industry terminology and protocol. Identifying current trends and developing a knowledge base of the event industry.
Effective Summer Semester 2025
- HB 291 Hospitality Current Topics and Trends
On Demand. 1 to 3 credits. ~~A student may earn a maximum of 9 credits in all enrollments for this course.~~ A student may earn a maximum of 18 credits in all enrollments for this course.
Emerging topics or issues confronting the hospitality industry.
Effective Summer Semester 2025
- HB 307 Hospitality Human Resources
Fall of every year. Spring of every year. 3(3-0) P: HB 203 RB: Completion of Level I internship. R: Open to juniors or seniors in the Hospitality Business Major. Not open to students with credit in MGT 315.
Human resource management and employee relations in the hospitality industry. Managing in a culturally diverse workplace. Benefits, compensation, labor relations, equal opportunity, ethics, interviewing, job analysis and description, labor laws, performance management and appraisal, workforce planning, recruitment, retention, risk management, strategic planning, talent management, testing and selection, training, and development, and managing global human resources.
Effective Summer Semester 2025
- HB 345 Hospitality Food Production Systems
Fall of every year. Spring of every year. 3(3-0) P: HB 265 R: Open to sophomores or juniors or seniors in the Hospitality Business Major.
Organization of food and beverage operations. Product knowledge, especially purchasing, storing, preparing and production in food service operations. Menu development and recipe management.
DELETE COURSE
Effective Summer Semester 2025
- HB 345L Hospitality Food Production Systems Lab
Fall of every year. Spring of every year. 1(0-2) P: HB 265 R: Open to juniors or seniors in the Hospitality Business Major.
Practical applications of organization in food and beverage operations. Product knowledge, especially purchasing, storing, preparing, and production in food service operations. Menu development and recipe management.
DELETE COURSE
Effective Summer Semester 2025
- HB 380 Event Planning and Management
~~Fall of every year.~~ Spring of every year. 3(3-0) P: HB 280 R: ~~Open to juniors or seniors in the Hospitality Business Major.~~ R: Open to sophomores or juniors or seniors in the Hospitality Business Major.
Identify the logistical steps for planning an event. The relationship between the goal and objectives for holding an event. Pre-event planning and project management. Understand the detailed components of creating an event.
Effective Summer Semester 2025

- HB 411L Hospitality Beverages Lab
Fall of every year. Spring of every year. 1(0-2) RB: Must be 21 years of age R: Open to juniors or seniors in the Hospitality Business Major. Approval of school.
Safe service and menu pricing of alcoholic and non-alcoholic beverages within a hospitality establishment. Evaluation of cost and visual, aroma, and flavor attributes.
DELETE COURSE
Effective Summer Semester 2025
- HB 415 Managing Quality in Hospitality Businesses
Fall of every year. 3(3-0) R: Open to juniors or seniors in the School of Hospitality Business.
Quality management and leadership in hospitality businesses. Quality planning and improvement, assessment, internal and external customer surveys and feedback, costs of quality, strategic quality planning.
DELETE COURSE
Effective Summer Semester 2025
- HB 420 The Business of Golf
~~Fall of every year. Spring of every year.~~ Fall of every year. 3(3-0) R: Open to juniors or seniors or graduate students.
Accounting, branding, expensing, logistics, negotiations, recruiting, risk management, operations, and promotion in golf. Business considerations in the development and location of golf courses.
Effective Summer Semester 2025
- HB 425 Golf Operations and Management
~~Fall of every year. Spring of every year.~~ Spring of every year. 3(3-0) R: Open to juniors or seniors or graduate students.
Golf course operations including human resource management, golf course and facility design, equipment, pro shop operations, golf cart fleet and tee sheet management. Golf tournament and outing planning and operations, common golf course legal issues, sustainable golf course maintenance and how the weather impacts the industry. Current trends and strategies in golf facility marketing and advertising. Importance of hospitality in golf operations as well as strategic food and beverage selection.
Effective Summer Semester 2025
- HB 491 Hospitality Current Topics and Trends
On Demand. 1 to 3 credits. ~~A student may earn a maximum of 9 credits in all enrollments for this course.~~ A student may earn a maximum of 18 credits in all enrollments for this course. R: Open to students in the Hospitality Business Major.
Emerging topics or issues confronting the hospitality service industry.
Effective Summer Semester 2025

DEPARTMENT OF HUMAN DEVELOPMENT AND FAMILY STUDIES

- HDFS 910 Contemporary Couple and Family Therapy Theories
~~Fall of even years.~~ Spring of even years. 3(3-0)
Emerging theories and issues related to couple and family therapy. Review of evidence based family-based interventions.
Effective Spring Semester 2026
- HDFS 911 Outcome Research: What Works in Couple and Family Therapy Theories
Spring of even years. 3(3-0)
Common and unique change processes in couple and family therapy. Review of common factors and other non-technique approaches to change.
DELETE COURSE
Effective Spring Semester 2026

HDFS 995 Couple and Family Therapy Supervision
~~Fall of every year.~~ Fall of odd years. 3(2-3) R: Open to doctoral students in the Department of Human Development and Family Studies. Approval of department.
Models of couple and family therapy and related supervision principles. Development of perceptual, cognitive, and executive supervisory skills. Ethical, legal, and educational issues.
SA: FCE 995
Effective Spring Semester 2026

COLLEGE OF HUMAN MEDICINE

HM 544 Medical School III
Summer of every year. ~~16(16-0)~~ 10(10-0) A student may earn a maximum of 32 credits in all enrollments for this course. A student may earn a maximum of 20 credits in all enrollments for this course. RB: Degree in DDS or DMD R: Open to graduate-professional students in the College of Human Medicine.
~~The beginning of an interdisciplinary, patient centered experience, integrating necessary biomedical and social sciences and humanities with clinical skills and professional development. Includes history and physical exam basics.~~ The beginning of an interdisciplinary, patient centered experience, integrating necessary biomedical and social sciences and humanities with clinical skills and professional development. Includes history and physical exam basics as well as clinical and human organ system/topic rotations.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Summer Semester 2026

HM 549 ~~Medical School V~~ Integrated Topics in Human Medicine
Spring of every year. ~~10(10-0)~~ 9(9-0) A student may earn a maximum of 20 credits in all enrollments for this course. A student may earn a maximum of 18 credits in all enrollments for this course. P: HM 555 P: HM 563 RB: Degree in DDS or DMD R: Open to graduate-professional students in the College of Human Medicine.
~~Continuation of an interdisciplinary, patient centered experience, integrating necessary biomedical and social sciences and humanities with clinical skills and professional development.~~ Human organ system/topic rotations integrating necessary biomedical and social sciences and humanities with clinical skills and professional development. Includes clinical rotations.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Spring Semester 2027

HM 552 Medical School I
Fall of every year. ~~16 credits.~~ 16(16-0) A student may earn a maximum of 32 credits in all enrollments for this course. R: Open to graduate-professional students in the College of Human Medicine.
~~A first course in a primary care, patient centered experience, integrating necessary biomedical and social sciences and humanities with clinical skills and professional development.~~ Foundational course integrating biomedical and social sciences and humanities with clinical skills and professional development.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Fall Semester 2025

- HM 553 Medical School II
Spring of every year. ~~16 credits. 13(13-0)~~ A student may earn a maximum of 32 credits in all enrollments for this course. A student may earn a maximum of 26 credits in all enrollments for this course. P: HM 552 R: Open to graduate-professional students in the College of Human Medicine.
~~Continuation of a primary care, patient centered experience, integrating necessary biomedical and social sciences and humanities with clinical skills and professional development. Includes selectives to develop areas of strength and remediate gaps. Primary care clinical experience with integrated development of biomedical and social science knowledge. Scholarly project.~~
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Spring Semester 2026
- HM 651 Advanced Skills and Knowledge in Medical School I
Fall of every year. Fall of every year. Summer of every year. 3(3-0) A student may earn a maximum of 20 credits in all enrollments for this course. A student may earn a maximum of 6 credits in all enrollments for this course. P: HM 556 P: HM 549 or HM 556 or HM 564 or HM 566 R: Open to graduate-professional students in the College of Human Medicine.
~~Interdisciplinary small group course for advanced medical students combining advanced clinical skills, ongoing development of research skills, and principles of biomedical science and humanities. Interdisciplinary course for advanced medical students combining advanced clinical skills, ongoing development of research skills, and principles of biomedical science and humanities.~~
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Summer Semester 2027
- HM 652 Advanced Skills and Knowledge in Medical School II
Spring of every year. Fall of every year. Spring of every year. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. P: HM 651 R: Open to graduate-professional students in the College of Human Medicine.
~~Interdisciplinary small group course for advanced medical students combining advanced clinical skills, ongoing development of research skills, and principles of biomedical science and humanities. Interdisciplinary course for advanced medical students combining advanced clinical skills, ongoing development of research skills, and principles of biomedical science and humanities.~~
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Fall Semester 2027

SCHOOL OF HUMAN RESOURCES AND LABOR RELATIONS

- HRLR 201 Human Capital, Human Resources, and Labor Relations
Fall of every year. Spring of every year. Summer of every year. Fall of every year. Spring of every year. 3(3-0)
Human capital and society from cultural, organizational, and worker perspectives.
Interdisciplinary and professional aspects of human resources and labor relations.
Effective Spring Semester 2026
- HRLR 493 Internship in Human Resources and Labor Relations
Fall of every year. Spring of every year. Summer of every year. Fall of every year. Summer of every year. 3 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. RB: HRLR 201 R: Open to undergraduate students in the College of Social Science or approval of school. Not open to students with credit in SSC 493.
Faculty-guided internship in field related to human capital & society
Request the use of the Pass-No Grade (P-N) system.
Effective Spring Semester 2026

- HRLR 818 Leadership
~~Spring of every year.~~ Fall of every year. 3(3-0) R: Open to graduate students in the School of Human Resources and Labor Relations or approval of school.
Leadership theories relevant to human resources.
Effective Fall Semester 2025
- HRLR 825 Compensation
~~Fall of every year.~~ ~~Spring of every year.~~ Fall of every year. 3(3-0) R: Open to graduate students in the School of Human Resources and Labor Relations or approval of school.
Concepts, principles, theories, tools and techniques in the design and administration of employee compensation systems. Strategic, managerial, and operational considerations and roles in compensation system design.
SA: LIR 825
Effective Fall Semester 2025
- HRLR 891 Special Topics in Human Resources and Labor Relations
~~Fall of every year.~~ On Demand. 3(3-0) A student may earn a maximum of 15 credits in all enrollments for this course. R: Open to graduate students in the School of Human Resources and Labor Relations or approval of school.
Special topics in collective bargaining, human resources, employment, and training.
Effective Fall Semester 2025
- HRLR 991A Theoretical Perspectives in Human Resource Management
~~Fall of every year.~~ Fall of even years. 3(3-0) R: Open to graduate students in the School of Human Resources and Labor Relations or approval of school.
Theoretical perspectives and foundations for human resource management
Effective Fall Semester 2025
- HRLR 991B Theoretical Perspectives in Labor and Employment Relations
~~Fall of every year.~~ Fall of odd years. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. R: Open to graduate students in the School of Human Resources and Labor Relations or approval of school.
Theoretical perspectives and foundations for labor and employment relations.
Effective Fall Semester 2025
- HRLR 992A Research Perspectives in Human Resource Management
~~Spring of every year.~~ Spring of odd years. 3(3-0) RB: HRLR 991A R: Open to graduate students in the School of Human Resources and Labor Relations or approval of school.
Research and policy analysis of selected topics in human resource management.
SA: LIR 992A
Effective Spring Semester 2027
- HRLR 992B Research Perspectives in Labor and Employment Relations
~~Spring of every year.~~ Spring of even years. 3(3-0) RB: HRLR 991B R: Open to graduate students in the School of Human Resources and Labor Relations or approval of school.
Research and policy analysis of selected topics in labor and employment relations.
SA: LIR 992B
Effective Spring Semester 2026

DEPARTMENT OF INTEGRATIVE BIOLOGY

- IBIO 150 Integrating Biology: From DNA to Populations
Fall of every year. Spring of every year. 3(3-0) ~~P: ((MTH 103 or concurrently) or (MTH 110 or concurrently) or (MTH 112 or concurrently) or (MTH 116 or concurrently) or (MTH 124 or concurrently) or (MTH 132 or concurrently) or (LB 118 or concurrently) or (MTH 201 or concurrently) or (STT 200 or concurrently) or (STT 201 or concurrently))~~ or designated score on Mathematics Placement test P: ((MTH 103 or concurrently) or (MTH 116 or concurrently) or (MTH 124 or concurrently) or (MTH 132 or concurrently) or (LB 118 or concurrently) or (MTH 201 or concurrently) or (STT 200 or concurrently) or (STT 201 or concurrently)) or designated score on Mathematics Placement test R: Not open to undergraduate students in the Department of Integrative Biology.
Examine biological systems across multiple levels of organization - spatial, temporal, taxonomic - using evolutionary biology as the common thread.
Effective Fall Semester 2025

CENTER FOR INTEGRATIVE STUDIES IN SOCIAL, BEHAVIORAL AND ECONOMIC SCIENCES

- ISS 205 Big Ideas in the Social Sciences (D)
Fall of every year. Spring of every year. Summer of every year. 4(4-0) Not open to students with credit in ISS 210 or ISS 215 or ISS 220 or ISS 225 or ISS 230 or ISS 235.
Introduction to the inquiry and research of complex issues in the social, behavioral, and economic sciences. Special topics to engage new students' interests, analyze complex ideas, and consider empirical evidence.
Effective Spring Semester 2026
- ISS 210 Society and the Individual (D)
Fall of every year. Spring of every year. Summer of every year. 4(4-0) Not open to students with credit in ISS 205 or ISS 215 or ISS 220 or ISS 225 or ISS 230 or ISS 235.
Interdisciplinary exploration of social problems, relationships, institutions. Exploring diverse perspectives and cultural practices associated with diverse characteristics.
Effective Spring Semester 2026
- ISS 215 Social Differentiation and Inequality (D)
Fall of every year. Spring of every year. Summer of every year. 4(4-0) Not open to students with credit in ISS 205 or ISS 210 or ISS 220 or ISS 225 or ISS 230 or ISS 235.
Interdisciplinary exploration of social hierarchies. Exploring diverse perspectives and cultural practices associated with diverse characteristics.
Effective Spring Semester 2026
- ISS 220 Time, Space and Change in Human Society (D)
Fall of every year. Spring of every year. Summer of every year. 4(4-0) Not open to students with credit in ISS 205 or ISS 210 or ISS 215 or ISS 225 or ISS 230 or ISS 235.
Interdisciplinary exploration of human biological, geographic, and cultural variation and adaptation. Theories of change from evolutionary, ecological, and social science perspectives. Exploring diverse perspectives and cultural practices associated with diverse characteristics.
Effective Spring Semester 2026
- ISS 225 Power, Authority, and Exchange (D)
Fall of every year. Spring of every year. Summer of every year. 4(4-0) Not open to students with credit in ISS 205 or ISS 210 or ISS 215 or ISS 220 or ISS 230 or ISS 235.
Interdisciplinary exploration of power and authority in social and economic exchange. Exploring diverse perspectives and cultural practices associated with diverse characteristics.
Effective Spring Semester 2026
- ISS 230 Government and the Individual (D)
Fall of every year. Spring of every year. Summer of every year. 4(4-0) Not open to students with credit in ISS 205 or ISS 210 or ISS 215 or ISS 220 or ISS 225 or ISS 235.
Critical examination of the role of government in regulating individual behavior. Exploring diverse perspectives and cultural practices associated with diverse characteristics.
Effective Spring Semester 2026

- ISS 235 Liberal Democracy as a Way of Life (D)
Fall of every year. 4(4-0) Not open to students with credit in ISS 205 or ISS 210 or ISS 215 or ISS 220 or ISS 225 or ISS 230.
Interdisciplinary exploration of democracy in philosophy, history, or literature and its influence on the lives of individuals and the forms and functioning of institutions; political ideology, governance, social and financial economies; liberalism and democracy; freedom and civil rights; civic duties, religion, and secularism. Exploring diverse perspectives and cultural practices associated with diverse characteristics.
Effective Spring Semester 2026
- ISS 305 Evaluating Evidence: Becoming a Smart Research Consumer (N)
Fall of every year. 4(4-0) P: ISS 210 or ISS 215 or ISS 220 or ISS 225 or ISS 230 or ISS 235 or MC 201 or ISS 205 R: Open to sophomores or juniors or seniors. Not open to students with credit in ISS 308 or ISS 310 or ISS 315 or ISS 318 or ISS 320 or ISS 325 or ISS 327 or ISS 328 or ISS 330A or ISS 330B or ISS 330C or ISS 335.
Statistical and methodological principles from the perspective of a critical consumer of social science research results. Recognizing non-empirical assertions, necessary bases for inferring relationships and causal relationships, common threats to research validity, and pertinent biases in human judgment.
Effective Spring Semester 2026
- ISS 308 Social Science Approaches to Law (D)
Spring of every year. 4(4-0) P: ISS 210 or ISS 215 or ISS 220 or ISS 225 or ISS 230 or ISS 235 or MC 201 or ISS 205 R: Open to sophomores or juniors or seniors. Not open to students with credit in ISS 305 or ISS 310 or ISS 315 or ISS 318 or ISS 320 or ISS 325 or ISS 327 or ISS 328 or ISS 330A or ISS 330B or ISS 330C or ISS 335.
Law theories, practices, methodologies. Social, cultural, institutional, global, environmental, family, or historical context.
Effective Spring Semester 2026
- ISS 310 People and Environment (I)
Fall of every year. Spring of every year. Summer of every year. 4(4-0) P: ISS 210 or ISS 215 or ISS 220 or ISS 225 or ISS 230 or ISS 235 or MC 201 or ISS 205 R: Open to sophomores or juniors or seniors. Not open to students with credit in ISS 305 or ISS 308 or ISS 310 or ISS 315 or ISS 320 or ISS 325 or ISS 327 or ISS 328 or ISS 330A or ISS 330B or ISS 330C or ISS 335.
Contemporary issues related to the interaction of socio-cultural and ecological systems. Global, regional, national and local environmental problems and responses.
Effective Spring Semester 2026
- ISS 315 Global Diversity and Interdependence (I)
Fall of every year. Spring of every year. Summer of every year. 4(4-0) P: ISS 210 or ISS 215 or ISS 220 or ISS 225 or ISS 230 or ISS 235 or MC 201 or ISS 205 R: Open to sophomores or juniors or seniors. Not open to students with credit in ISS 305 or ISS 308 or ISS 310 or ISS 315 or ISS 320 or ISS 325 or ISS 327 or ISS 328 or ISS 330A or ISS 330B or ISS 330C or ISS 335.
Contemporary issues in global political economy. Social forces and competing ideologies in a world context. Global resource distribution and development strategies. National identities and transnational linkages. First and Third World dichotomies.
Effective Spring Semester 2026
- ISS 318 Lifespan Development Across Cultures (I)
Fall of every year. 4(4-0) P: ISS 210 or ISS 215 or ISS 220 or ISS 225 or ISS 230 or ISS 235 or MC 201 or ISS 205 R: Open to sophomores or juniors or seniors. Not open to students with credit in ISS 305 or ISS 308 or ISS 310 or ISS 315 or ISS 320 or ISS 325 or ISS 327 or ISS 328 or ISS 330A or ISS 330B or ISS 330C or ISS 335.
Cultural aspects of biopsychosocial development across the lifespan. Physical development, health and healing. Cognition and language socialization. Views of self, gender, family, and social relationships. Adult development and intergenerational relationships within the context of culture. National and international issues related to human development.
Effective Spring Semester 2026

- ISS 320 World Urban Systems (I)
Fall of every year. Spring of every year. Summer of every year. 4(4-0) P: ISS 210 or ISS 215 or ISS 220 or ISS 225 or ISS 230 or ISS 235 or MC 201 or ISS 205 R: Open to sophomores or juniors or seniors. Not open to students with credit in ISS 305 or ISS 308 or ISS 310 or ISS 315 or ISS 318 or ISS 325 or ISS 327 or ISS 328 or ISS 330A or ISS 330B or ISS 330C or ISS 335.
Patterns of urbanization in various areas of the world over time. Linkage within and between urban centers. Economic, political and social/behavioral accommodation and adaptation to urban growth and change.
Effective Spring Semester 2026
- ISS 325 War and Revolution (I)
Fall of every year. Spring of every year. Summer of every year. 4(4-0) P: ISS 210 or ISS 215 or ISS 220 or ISS 225 or ISS 230 or ISS 235 or MC 201 or ISS 205 R: Open to sophomores or juniors or seniors. Not open to students with credit in ISS 305 or ISS 308 or ISS 310 or ISS 315 or ISS 318 or ISS 320 or ISS 327 or ISS 328 or ISS 330A or ISS 330B or ISS 330C or ISS 335.
Social conflict, wars and revolutions. Patterns of individual and collective action. Violence and conflict resolution.
Effective Spring Semester 2026
- ISS 327 Risk and Society (D)
Fall of every year. Spring of every year. 4(4-0) P: ISS 210 or ISS 215 or ISS 220 or ISS 225 or ISS 230 or ISS 235 or MC 201 or ISS 205 R: Open to sophomores or juniors or seniors. Not open to students with credit in ISS 305 or ISS 308 or ISS 310 or ISS 315 or ISS 318 or ISS 320 or ISS 325 or ISS 328 or ISS 330A or ISS 330B or ISS 330C or ISS 335.
Assessment, management, and communication of risk. Role of media in amplifying risk. Topics may include gangs, terrorism, health, stock markets, job markets, sports, food, and traffic. Similarities and differences in understanding risk among scientists and the public, and between natural and social scientists.
Effective Spring Semester 2026
- ISS 328 The Social Science of Sports (I)
Fall of every year. Spring of every year. 4(4-0) P: ISS 210 or ISS 215 or ISS 220 or ISS 225 or ISS 230 or ISS 235 or MC 201 or ISS 205 R: Open to sophomores or juniors or seniors. Not open to students with credit in ISS 305 or ISS 308 or ISS 310 or ISS 315 or ISS 318 or ISS 320 or ISS 325 or ISS 327 or ISS 330A or ISS 330B or ISS 330C or ISS 335.
Contemporary issues in sports. Critical examination of the industrial organization, public finance, labor relations, earnings, discrimination, and historical context of sports in society. Analysis of sports gambling, performance enhancement, and strategic decision-making.
Effective Spring Semester 2026
- ISS 330A Africa: Social Science Perspectives (I)
Fall of every year. Spring of every year. Summer of every year. 4(4-0) P: ISS 210 or ISS 215 or ISS 220 or ISS 225 or ISS 230 or ISS 235 or MC 201 or ISS 205 R: Open to sophomores or juniors or seniors. Not open to students with credit in ISS 305 or ISS 308 or ISS 310 or ISS 315 or ISS 318 or ISS 320 or ISS 325 or ISS 327 or ISS 328 or ISS 330B or ISS 330C or ISS 335.
Comparative study of geography, cultures, politics, and economies of Africa. Diversity and change.
Effective Spring Semester 2026
- ISS 330B Asia: Social Science Perspectives (I)
Fall of every year. Spring of every year. Summer of every year. 4(4-0) P: ISS 210 or ISS 215 or ISS 220 or ISS 225 or ISS 230 or ISS 235 or MC 201 or ISS 205 R: Open to sophomores or juniors or seniors. Not open to students with credit in ISS 305 or ISS 308 or ISS 310 or ISS 315 or ISS 318 or ISS 320 or ISS 325 or ISS 327 or ISS 328 or ISS 330A or ISS 330C or ISS 335.
Comparative study of geography, cultures, politics, and economies of Asia. Diversity and change.
Effective Spring Semester 2026

- ISS 330C Latin America: Social Science Perspectives (I)
Fall of every year. Spring of every year. Summer of every year. 4(4-0) P: ISS 210 or ISS 215 or ISS 220 or ISS 225 or ISS 230 or ISS 235 or MC 201 or ISS 205 R: Open to sophomores or juniors or seniors. Not open to students with credit in ISS 305 or ISS 308 or ISS 310 or ISS 315 or ISS 318 or ISS 320 or ISS 325 or ISS 327 or ISS 328 or ISS 330A or ISS 330B or ISS 335.
Comparative study of geography, cultures, politics, and economies of Latin America. Diversity and change.
Effective Spring Semester 2026
- ISS 335 National Diversity and Change: United States (N)
Fall of every year. Spring of every year. Summer of every year. 4(4-0) P: ISS 210 or ISS 215 or ISS 220 or ISS 225 or ISS 230 or ISS 235 or MC 201 or ISS 205 R: Open to sophomores or juniors or seniors. Not open to students with credit in ISS 305 or ISS 308 or ISS 310 or ISS 315 or ISS 318 or ISS 320 or ISS 325 or ISS 327 or ISS 328 or ISS 330A or ISS 330B or ISS 330C.
Racial, ethnic, class, gender, and other forms of diversity in the United States. Systems of dominant-minority relations and forms of prejudice and discrimination. Scope of and responses to group inequalities.
SA: ISS 335A
Effective Spring Semester 2026

JAMES MADISON COLLEGE

- MC 337 Global Public Health
Fall of every year. 4(3-0) ~~P: Completion of Tier I Writing Requirement~~ P: MC 220 or MC 230 or MC 270 or MC 280
Comprehensive, interdisciplinary and policy-orientated approach to global public health. Examination of infectious disease, as well as case studies.
Effective Fall Semester 2025
- MC 364 ~~Policy Evaluation~~ Quantitative Methods for Policy Analysis: Intermediate Level
Spring of every year. 4(3-0) P: ((EC 201 or concurrently) or (EC 251H or concurrently)) and ((EC 202 or concurrently) or (EC 252H or concurrently)) and ((SOC 281 or concurrently) or (MC 295 or concurrently) or (PLS 201 or concurrently)) and Completion of Tier I Writing Requirement Not open to students with credit in PLS 313.
Economic concepts and analytic techniques for the design and evaluation of public policies. Political environment of policy formation and implementation. Basic data analysis. Application of concepts and techniques to selected government policies.
SA: MC 444
Effective Spring Semester 2026

MSU COLLEGE OF LAW

- LAW 631X Public Defender Clinic I
On Demand. 0 to 6 credits. ~~R: Open to students in the MSU College of Law.~~ R: Open to Law students in the MSU College of Law.
~~Representation in preconviction appellate matters which provide opportunities to interact with clients, strategize with trial counsel, argue in appellate courts, and appear in trial courts on ancillary matters.~~ Students represent indigent defendants in criminal matters. This includes representation in preconviction appellate matters which provide opportunities to interact with clients, strategize with trial counsel, argue in appellate courts, and appear in trial courts on ancillary matters.
Effective Spring Semester 2025

DEPARTMENT OF MATHEMATICS

- MTH 202 Elementary Mathematics for Teachers II
Fall of every year. Spring of every year. 3(3-0) P: MTH 201 R: Open to students in the Education Major or in the Special Education-Learning Disabilities Major or in the Child Development major or in the Teacher Certification Internship Year Studies Program.
A continuation of MTH 201. Measurement, elementary geometry, and elementary number theory with an emphasis on children's mathematical thinking.
DELETE COURSE
Effective Fall Semester 2025
- MTH 301 Foundations of Higher Mathematics
Fall of every year. Spring of every year. 3(3-0) P: (MTH 133 or MTH 153H or LB 119) and MTH 202 R: Open to students in the Mathematics Elementary Teaching Major or in Mathematics-Elementary Disciplinary Teaching Minor or approval of department.
Elementary set theory including permutations, combinations, cardinality theorems, relations, functions and quotient sets. Basic principles of logic and proof techniques. Elementary number theory and abstract algebra.
DELETE COURSE
Effective Fall Semester 2025

DEPARTMENT OF MEDICINE

- MED 641 ~~Internal Medicine Clerkship in the Late Clinical Experience~~ Internal Medicine Clerkship
Fall of every year. Spring of every year. Summer of every year. 6 to 9 credits. ~~P: HM 556~~ P: HM 549 or HM 556 or HM 564 or HM 566 R: Open to graduate-professional students in the College of Human Medicine.
Clinical experience in which students take primary responsibility for managing the care of adult patients under the supervision of senior residents and/or attending physicians
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Spring Semester 2027

COLLEGE OF MUSIC

- MUS 463 ~~Music in Early Childhood~~ Music in Early Childhood Education and Care
Fall of every year. Spring of every year. 3(3-0) RB: Upper-level undergraduate students in B-K teacher certification programs; Students in PK-3 teacher certification programs; students in family studies and related programs. R: Not open to students in the College of Music.
Rationale, pedagogy, strategies and skills for integrating music and movement in care and education settings serving children ages birth-8 years old (3rd grade).
Effective Fall Semester 2025

DEPARTMENT OF OBSTETRICS, GYNECOLOGY AND REPRODUCTIVE BIOLOGY

- OGR 641 ~~Obstetrics and Gynecology Clerkship in the Late Clinical Experience~~
Obstetrics and Gynecology Clerkship
Fall of every year. Spring of every year. Summer of every year. ~~6 credits.~~ 6 to 9 credits. P: ~~HM 556~~ P: HM 549 or HM 556 or HM 564 or HM 566 R: Open to graduate-professional students in the College of Human Medicine.
Diagnosis and management of common patient problems in obstetrics and gynecology.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Spring Semester 2027

DEPARTMENT OF OSTEOPATHIC MEDICAL SPECIALTIES

- IM 618 ~~Clinical Tropical Medicine~~ Global Health: Clinical Fundamentals
Fall of every year. 2(2-0) ~~R: Open to osteopathic medicine students or approval of college.~~
Selected topics such as African AIDS, malaria, onchocerciasis, tuberculosis, and schistosomiasis. Pathophysiology, treatments, epidemiology, current research, and controversies.
Request the use of the Pass-No Grade (P-N) system.
~~SA: CMS 618~~
Effective Fall Semester 2025
- IM 621 ~~Clinical Tropical Medicine Clerkship~~ Global Health: Elective Clerkship in Malawi
Spring of every year. ~~4 to 20 credits. 1.5 to 30 credits.~~ A student may earn a maximum of 30 credits in all enrollments for this course. ~~P: IM 618 RB: IM 618 R: Open to graduate-professional students in the College of Osteopathic Medicine. R: Open to osteopathic medicine students in the College of Osteopathic Medicine. Approval of college.~~
Supervised clinical experiences in a large African teaching hospital and its outpatient clinics; students must spend at least six weeks on site. Small group discussions led by MSU faculty.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.
~~SA: CMS 621~~
Effective Fall Semester 2025

COLLEGE OF OSTEOPATHIC MEDICINE

- OST 521 Musculoskeletal System
Fall of every year. 4(8-2) ~~P: OST 520 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 2025
- OST 522 Hematology, Oncology and Infectious Diseases
Fall of every year. 3(3-0) ~~P: OST 520 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 2025

DEPARTMENT OF PEDIATRICS AND HUMAN DEVELOPMENT

- PHD 641 ~~Pediatric Clerkship in the Late Clinical Experience~~ Pediatric Clerkship
Fall of every year. Spring of every year. Summer of every year. ~~6 credits. 6 to 9 credits.~~ ~~P: HM 556 P: HM 549 or HM 556 or HM 564 or HM 566 R: Open to graduate-professional students in the College of Human Medicine.~~
Clinical experience in which students take primary responsibility for managing the care of pediatric patients under the supervision of senior residents and/or attending physicians.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Spring Semester 2027

DEPARTMENT OF PHYSICS AND ASTRONOMY

- AST 304 Stars
~~Fall of even years.~~ Fall of every year. 3(3-0) P: AST 208 and (PHY 215 or PHY 215B) and (PHY 321 or concurrently) P: (AST 208) and PHY 215 and (PHY 321 or concurrently) RB: AST 208
Physical processes that determine the structure and evolution of stars. Observations of stars and star clusters. Spectra of stars.
Effective Fall Semester 2025

SCHOOL OF PLANNING, DESIGN AND CONSTRUCTION

- 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.
DELETE COURSE
Effective Fall Semester 2025
- UP 488 The Sustainable and Climate Resilient City
Spring of every year. 3(3-0) Not open to students with credit in UP 888.
Multidisciplinary research in sustainability and climate resilience of urban places. Characteristics of sustainable and resilient cities, comparative analysis, and international perspective.
DELETE COURSE
Effective Fall Semester 2025
- UP 800 Special Topics in Urban Planning
On Demand. 2 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
Issues and current research in urban planning.
DELETE COURSE
Effective Fall Semester 2025
- UP 816 Advanced Research Methods for Planning and Development
Spring of every year. 3(3-0) P: UP 814 or concurrently R: Open to students in the Master in Urban and Regional Planning and open to doctoral students.
Advanced qualitative and quantitative data analysis and research methods for academic research in urban planning and related fields.
DELETE COURSE
Effective Fall Semester 2025
- UP 868 Planning Resilience against Extreme Events
Spring of every year. 1 to 4 credits. Interdepartmental with Global Urban Studies Program A student may earn a maximum of 4 credits in all enrollments for this course.
Theory on ephemeral planning and contemporary urbanism. Characteristics of disruptive technologies, disaster planning, and mega-events. Case studies of US and international cities in duress and recovery. Strategic and tactical planning, management practices, and 'winging it' in a state of exception. Implications for policy, management, operations, and planning.
DELETE COURSE
Effective Fall Semester 2025
- UP 878 Autonomous Futures: Self-driving Vehicles, Domatics, and Artificial Intelligence in Smart Cities
Fall of every year. 3(3-0) Interdepartmental with Civil Engineering
Characteristics of autonomous systems and emerging technology. Perceptions of people on future transport, mobility, housing, and living. International perspectives on ethics and transitions towards autonomous futures. Implications for engineering, policy, business, and planning.
Effective Fall Semester 2025

UP 892 Research Seminar in Planning and Construction Management
Fall of every year. 2(2-0) RB: Second-year master's student in Urban and Regional Planning R: Open to graduate students in the Master in Urban and Regional Planning.
Research concepts. Research writing. Presentation methods.
SA: UP 897
DELETE COURSE
Effective Fall Semester 2025

DEPARTMENT OF POLITICAL SCIENCE

PLS 363 International and Domestic Political Conflict
Fall of even years. 3(3-0) ~~P: (PLS 160 or concurrently) or (MC 221 or concurrently)~~
Civil war, conflict, and conflict resolution in the international system.
Effective Fall Semester 2025

PLS 422 Seminar in Political Science (W)
Fall of every year. Spring of every year. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. ~~P: (PLS 201) and completion of Tier I writing requirement~~ P: (PLS 201 or PLS 202) and completion of Tier I writing requirement RB: Political Science major or student with background in political science or international studies.
Variable topics including legislative behavior, policy analysis, political development, human rights, international conflict, foreign policy, international political economy, and constitutionalism.
Effective Fall Semester 2025

PLS 481 Undergraduate Research Seminar (W)
Fall of every year. Spring of every year. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. ~~P: (PLS 201 or concurrently) and completion of Tier I writing requirement~~ P: ((PLS 201 or PLS 202) and completion of Tier I writing requirement) and Completion of Tier I Writing Requirement RB: Political Science major or student with background in political science or international studies. R: Open to undergraduate students in the College of Social Science or in the Department of Political Science or in the Political Science Major.
Advanced research seminar for students in the political science program.
Effective Fall Semester 2025

PLS 490 Guided Research
Fall of every year. Spring of every year. ~~4 to 6 credits. 1 to 3 credits.~~ A student may earn a maximum of 6 credits in all enrollments for this course. A student may earn a maximum of 3 credits in all enrollments for this course. ~~P: (PLS 200 or concurrently) or (PLS 201 or concurrently) or approval of department~~ P: (PLS 201 or concurrently) or (PLS 202 or concurrently) or approval of department ~~RB: PLS 200 and PLS 201~~ R: Approval of department.
Guided research on selected topics for students in the political science program.
SA: PLS 490H
Effective Fall Semester 2025

PLS 491H Senior Honors Thesis
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: PLS 200 and PLS 201 or approval of department
Original research and writing under direction of a faculty member.
DELETE COURSE
Effective Fall Semester 2025

DEPARTMENT OF PSYCHIATRY

- PSC 641 ~~Psychiatry and Behavioral Science Clerkship in the Late Clinical Experience~~
Psychiatry and Behavioral Science Clerkship
Fall of every year. Spring of every year. Summer of every year. 6 credits. ~~P: HM 556~~ P: HM 549 or HM 556 or HM 564 or HM 566 R: Open to graduate-professional students in the College of Human Medicine.
Supervised practice with in-patient, out-patient, emergency, and community mental health services.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Spring Semester 2027

DEPARTMENT OF SOCIOLOGY

- SOC 412 Animals, People, and Nature
Fall of every year. Spring of every year. 3(3-0) R: Not open to freshmen.
Sociological overview of the intersecting roles of animals, culture, and nature in contemporary society.
DELETE COURSE
Effective Spring Semester 2025
- SOC 830 Animals and Environmental Sustainability
Fall of every year. Spring of every year. Summer of every year. 3(3-0)
Study of sustainable relationships among humans, animals, and the natural world.
DELETE COURSE
Effective Spring Semester 2025
- SOC 840 Animals and Social Transformations
Fall of every year. Spring of every year. Summer of every year. 3(3-0)
Historical examination of human-animal relationships.
DELETE COURSE
Effective Spring Semester 2025
- SOC 850 Special Topics in Animal Studies
Fall of every year. Spring of every year. Summer of every year. 3(3-0)
Special topics and emerging issues in animal studies, including animal subjectivity and agency and intersecting race-gender-animal forms of oppression.
DELETE COURSE
Effective Spring Semester 2025

DEPARTMENT OF SURGERY

- SUR 643 Surgical Critical Care
Fall of every year. Spring of every year. Summer of every year. 6 credits. ~~P: SUR 641 and SUR 642~~ P: SUR 642 or SUR 651 R: Open to graduate-professional students in the College of Human Medicine.
Hospital-based clinical experience in evaluating and managing acutely ill surgical patients.
Request the use of the Pass-No Grade (P-N) system.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Spring Semester 2028

DEPARTMENT OF TEACHER EDUCATION

- TE 202 Engaging Elementary Learners with Mathematics
Fall of every year. Spring of every year. 3(3-0) P: TE 101 ~~RB: MTH 201~~
Math curriculum standards for grades PK-6. Building positive math identities in diverse learners. Eliciting children's mathematical thinking. Pedagogical practices for small- and whole-group math activities.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Fall Semester 2025
- TE 301 Children's Literacy Development (W)
Fall of every year. Spring of every year. Summer of every year. ~~3(2-4) 3(3-0) P: (TE 150) and Completion of Tier I Writing Requirement P: (TE 101) and Completion of Tier I Writing Requirement R: Open to students in the elementary teacher certification program (admitted) and open to students in the elementary teacher certification program (admitted).~~ R: Open to students in the Elementary Teacher Certification Program (Admitted).
Children's development in motivation and engagement, phonological awareness, phonics, spelling, word recognition, morphology, syntax, reading fluency, handwriting, comprehension, composition, and speaking and listening. Formative assessment tools in and out of school.
Effective Summer Semester 2025
- TE 301A Children's Literacy Development PK-3 (W)
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: (TE 101) and completion of Tier I writing requirement
Children's development in motivation and engagement, phonological awareness, phonics, spelling, word recognition, morphology, syntax, reading fluency, handwriting, comprehension, composition, and speaking and listening. Formative assessment tools in and out of school.
DELETE COURSE
Effective Fall Semester 2025
- TE 301B Children's Literacy Development 3-6 (W)
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: (TE 101) and completion of Tier I writing requirement
Children's development in motivation and engagement, phonological awareness, phonics, spelling, word recognition, morphology, syntax, reading fluency, handwriting, comprehension, composition, and speaking and listening. Formative assessment tools in and out of school.
DELETE COURSE
Effective Fall Semester 2025
- TE 371 Justice and Equity Seminar I
~~Fall of every year. Spring of every year. Summer of every year.~~ Fall of every year. Spring of every year. 1(1-0) P: TE 102 R: Open to students in the Elementary Teacher Certification Program (Admitted).
Application of equity and justice principles in co-occurring course- and/or field-based work.
Effective Fall Semester 2025
- TE 372 Justice and Equity Seminar II
Fall of every year. Spring of every year. Summer of every year. 1(1-0) P: TE 102 R: Open to students in the Elementary Teacher Certification Program (Admitted).
Application of equity and justice principles in co-occurring course- and/or field-based work.
DELETE COURSE
Effective Fall Semester 2025
- TE 403 Teaching Science to Diverse Learners - Elementary
Fall of every year. 3(3-2) P: TE 330 or TE 332 R: Open to students in the elementary teacher certification program (admitted) and open to students in the elementary teacher certification program (admitted).
Engaging diverse learners in grades PK-6 to make sense of the natural world. Lesson planning, formative assessment, discourse strategies, and resources for learning science. Supporting children's sense-making through engagement in scientific practices.
DELETE COURSE
Effective Fall Semester 2025

- TE 404 Teaching Social Studies to Diverse Learners - Elementary (W)
Fall of every year. 3(3-2) P: (TE 333) and completion of Tier I writing requirement R: Open to students in the elementary teacher certification program (admitted) and open to students in the elementary teacher certification program (admitted).
Teaching social studies to diverse learners at the elementary level (PK-6). Inquiry into and construction of subject-specific meaning. Social studies subject matter adapted to learner diversity. Teachers' roles, including professional, intellectual, and sociopolitical responsibilities.
DELETE COURSE
Effective Fall Semester 2025
- TE 405 Teaching Literacy to Diverse Learners I (3-6)
Fall of every year. 3(3-0) P: ~~(TE 202 or MTH 202)~~ and ~~(TE 301 or TE 301B)~~ P: (TE 202 or MTH 202) and TE 301 R: Open to students in the Elementary Teacher Certification Program (Admitted).
Teaching language and literacy to diverse learners in grades 3-6. Literacy learning environments. Culturally responsive practices in literacy. Literacy curriculum design and assessment. Teaching motivation and engagement, phonics, spelling, syntax, reading fluency, vocabulary, comprehension, composition, and speaking and listening in grades 3-6.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Fall Semester 2025
- TE 406 Teaching Mathematics to Diverse Learners I (3-6)
Spring of every year. 3(3-0) P: (MTH 202 or TE 202) and TE 405 R: Open to students in the Elementary Teacher Certification Program (Admitted).
Building mathematical relationships with diverse learners in Grades 3-6. Choosing representations, eliciting children's thinking, and implementing tasks to develop children's understanding of whole numbers and operations and fractions, decimals, and operations.
Teacher's roles, including professional, intellectual, and sociopolitical responsibilities.
Request the use of ET-Extension to postpone grading.
The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.
Effective Fall Semester 2025
- TE 407 Teaching Subject Matter to Diverse Learners – Secondary (W)
Fall of every year. 5(3-8) P: (TE 301 or TE 302) and Completion of Tier I Writing Requirement R: Not open to freshmen or sophomores and open to students in the Secondary Teacher Certification Program (Admitted)..
Examining teaching as enabling diverse learners to inquire into and construct subject-specific meanings at the secondary level (7-12). Adapting subject matter to learner diversity. Exploring multiple ways diverse learners make sense of the curriculum.
DELETE COURSE
Effective Fall Semester 2025
- TE 408 Crafting Teaching Practices – Secondary (W)
Spring of every year. 5(4-6) P: (TE 407) and completion of Tier I writing requirement R: Not open to freshmen or sophomores and open to students in the Secondary Teacher Certification Program (Admitted).
Gathering data on learners to inform content and instructional decisions. Learning what should be taught and how it should be taught for specific disciplines at the secondary level (6-12). Teachers' multiple roles and their professional, intellectual, sociopolitical, and communal responsibilities.
DELETE COURSE
Effective Fall Semester 2025

- TE 409 Crafting Teaching Practices in the Secondary Teaching Minor
Spring of every year. 1(1-0) A student may earn a maximum of 5 credits in all enrollments for this course. P: (TE 407 and (TE 408 or concurrently)) and completion of Tier I writing requirement R: Not open to freshmen or sophomores and open to students in the Secondary Teacher Certification Program (Admitted).
Deciding what should be taught for specific disciplines at the secondary level (7-12). Discipline-specific strategies for gathering data on learners to inform content and instructional decisions.
Discipline-specific instructional strategies and student management and safety strategies.
DELETE COURSE
Effective Fall Semester 2025
- TE 939D Advanced Qualitative Methods: Case Studies
Spring of even years. 3(3-0) P: TE 931
Aims and methods of case study research; conceptions of case study research as well as interpretive methods frequently used in case studies, including ethnographic observations, textual analysis, multimodal/video analysis, interviews, and focus groups.
Effective Fall Semester 2025

DEPARTMENT OF THEATRE

- THR 110 Theatrical Play Analysis
Fall of every year. Spring of every year. 3(2-2) ~~R: Open to undergraduate students in the Bachelor of Arts Theatre Major or in the Bachelor of Fine Arts Theatre Major.~~ R: Open to undergraduate students in the Dance Minor or in the Musical Theatre minor or in the Bachelor of Arts Theatre Major or in the Bachelor of Fine Arts Theatre Major or in the Theatre Minor or approval of department.
Play study in relation to theatrical production.
Effective Fall Semester 2025
- THR 201 Acting II
~~Fall of every year. Spring of every year. Fall of every year.~~ 3(0-6) ~~P: THR 104 P: THR 101 or THR 101N~~ P: THR 104 P: THR 101 or THR 101N RB: THR 110 R: Open to undergraduate students in the Bachelor of Fine Arts Theatre Major.
Intensive practicum including scene study, rehearsal, and performance of works by contemporary playwrights.
Effective Fall Semester 2025
- THR 202 Voice Studio I
Fall of every year. 2(0-4) A student may earn a maximum of 6 credits in all enrollments for this course. ~~P: THR 104 P: THR 101 or THR 101N~~ P: THR 104 P: THR 101 or THR 101N ~~R: Open to students in the Department of Theatre.~~ R: Open to students in the .
Practicum in techniques for developing physical awareness in voice as an instrument of expression.
Effective Fall Semester 2025
- THR 204 Topics in Acting/Directing I
On Demand. 1 to 6 credits. A student may earn a maximum of 9 credits in all enrollments for this course. ~~P: THR 104 P: THR 101 or THR 101N~~ P: THR 104 P: THR 101 or THR 101N R: Approval of department.
Topics supplementing regular acting and directing course offerings on a group study basis.
Effective Fall Semester 2025
- THR 205 Media Acting I
~~On Demand. Fall of every year.~~ 2(1-3) ~~P: THR 104 P: THR 101 or THR 101N~~ P: THR 104 P: THR 101 or THR 101N
Introduction to On-Camera Acting technique and pertinent film production terminology.
~~SA: THR 204~~
Effective Fall Semester 2025
- THR 206 Musical Theatre I
~~On Demand. Fall of every year.~~ 2(1-3) ~~P: THR 104 P: THR 101 or THR 101N~~ P: THR 104 P: THR 101 or THR 101N
~~Introduction to the Musical Theatre canon, new musical development and performance.~~ Introduction to acting the song, Musical Theatre canon and new musical development.
Effective Fall Semester 2025

- THR 207 Movement Studio I
~~Spring of every year.~~ Fall of every year. 2(0-4) A student may earn a maximum of 6 credits in all enrollments for this course. ~~P: THR 404~~ P: THR 101 or THR 101N R: Open to students in the Department of Theatre.
Practicum in techniques for developing physical and expressive awareness and movement range for the emerging performer.
Effective Fall Semester 2025
- THR 304 Topics in Acting/Directing II
On Demand. 1 to 6 credits. A student may earn a maximum of 9 credits in all enrollments for this course. ~~P: THR 404~~ P: THR 101 or THR 101N RB: THR 201 R: Approval of department.
Topics supplementing regular acting and directing course offerings on a group study basis.
Effective Fall Semester 2025
- THR 306 Musical Theatre II
~~On Demand.~~ Spring of even years. 2(1-3) P: THR 206
~~Advanced approach to Musical Theatre canon, new musical development, and performance.~~ Advanced approach to acting the song, deeper exploration of the Musical Theatre canon and new musical development
Effective Fall Semester 2025
- THR 341 Beginning Play Directing
Fall of every year. Spring of every year. ~~3(0-6)~~ 3(1-4) P: ~~(THR 101 and THR 110 and THR 111 and THR 111L) and (THR 211 or THR 212 or THR 214 or THR 216 or THR 219)~~ P: (THR 110 and THR 111 and THR 111L) and (THR 211 or THR 212 or THR 214 or THR 216 or THR 219) and (THR 101 or THR 101N)
Intensive study in concepts and techniques of stage directing and directing theories.
Effective Fall Semester 2025
- THR 404 Topics in Acting/Directing III
On Demand. 1 to 6 credits. A student may earn a maximum of 9 credits in all enrollments for this course. ~~P: THR 404~~ P: THR 101 or THR 101N RB: THR 201 R: Approval of department.
Topics supplementing regular acting and directing course offerings on a group study basis.
Effective Fall Semester 2025
- THR 406 Musical Theatre III
~~On Demand.~~ Fall of odd years. 2(1-3) P: THR 306
Professionalization in Musical Theatre, new musical development and performance.
Effective Fall Semester 2025
- THR 409 Auditioning
~~On Demand.~~ Spring of every year. ~~2(2-2)~~ 3(2-2) P: THR 104 P: THR 201 RB: THR 205 R: Open to juniors or seniors in the Department of Theatre.
Auditioning for work as an actor in stage, screen, and new media.
Effective Fall Semester 2025
- THR 413 Stage Make-up
Fall of every year. Spring of every year. Summer of every year. 3(2-2) P: THR 111 and THR 111L or approval of department RB: THR 212 and THR 212L
Theory application of two-dimensional and three-dimensional make-up for the stage.
DELETE COURSE
Effective Fall Semester 2025

COLLEGE OF VETERINARY MEDICINE

- VM 120 Veterinary Comparative Nutrition
Spring of every year. 2(2-0) P: VM 250 R: Approval of college.
Energy metabolism, nutrients and nutrient requirements of common domestic species.
Effective Fall Semester 2025

- VM 210 Surgical Nursing for Veterinary Nurses
Fall of every year. ~~2(1-1)~~ 3(3-0) P: VM 160 and VM 130 and VM 250 R: Approval of department. ~~C: VM 215 concurrently and VM 303 concurrently~~ C: VM 215 concurrently and VM 303 concurrently
Role of the veterinary nurse as a member of the veterinary surgical team.
Effective Fall Semester 2025
- VM 303 Anesthesiology for Veterinary Nurses
Fall of every year. ~~2(1-1)~~ 3(3-0) P: VM 140 and VM 160 and VM 130 and VM 250 R: Approval of college. ~~C: VM 215 concurrently and VM 210 concurrently~~ C: VM 215 concurrently and VM 210 concurrently
Pharmacologic action of preanesthetic and anesthetic drugs. Principles and techniques of induction, maintenance, monitoring, and recovery of the patient. Humane methods of euthanasia.
Effective Fall Semester 2025