March 7, 2024

MEMORANDUM

TO: University Committee on Curriculum

FROM: Subcommittee A

RE: Report of Subcommittee A - Meeting of February 15, 2024

Members present: Schneider [Agriculture & Natural Resources], Walton [Engineering], Schein [Human Medicine], Collins [Lyman Briggs], Purdy for Chadwick [Natural Science], Smith [Nursing], Waner [Osteopathic Medicine], Sonea [Veterinary Medicine], Speas [UCC].

Members absent: None.

Others present: Owen [Engineering].

The Subcommittee considered the agenda dated February 15, 2024. Actions taken by the Subcommittee are noted on the attached copy of the Subcommittee A Agenda dated February 15, 2024.

S:\share\SUBA0215.doc
PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

1. Request to change the requirements for the Bachelor of Science degree in Forestry in the Department of Forestry.
   a. Under the heading Requirements for the Bachelor of Science Degree in Forestry make the following changes:

   **Approved**
   
   (1) In item 3. a. change the total credits from ‘67’ to ‘68’.
   
   (2) In item 3. a. delete the following course:

   - FOR 340L Forest Ecology Laboratory     1
   
   Add the following course:

   - FOR 340L Forest Ecology Laboratory     2

   Effective Fall 2024.

COLLEGE OF ENGINEERING

1. Request to change the requirements in the Bachelor of Science degree in Computational Data Science in the Department of Computer Science and Engineering.
   a. Under the heading Requirements for the Bachelor of Science Degree in Computational Data Science make the following change:

   **Approved**

   (1) In item 3. b. change the total credits from ‘44’ to ‘47’ and add the following course:

   - CSE 380 Information Management and the Cloud   3

   Effective Fall 2024.

2. Request to change the requirements in the Bachelor of Science degree in Computer Science in the Department of Computer Science and Engineering. The University Committee on Undergraduate Education (UCUE) will consider this request at its February 8, 2024 meeting.

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

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

   **Approved**

   (1) In item 3. b. change the total credits from ‘35’ to ‘32’ and delete the following courses:

   - CSE 425 Introduction to Computer Security   3
   - MTH 314 Matrix Algebra with Computational Applications   3

   Add the following course:

   - CSE 380 Information Management and the Cloud   3
(2) In item 3. b. add the following note:

Students must have a minimum grade of 2.0 in each of the following courses: CSE 300, CSE 320, CSE 325, CSE 331, CSE 335, CSE 380.

(3) Reletter item 3. c. to item 3. d. and item 3. d. to item 3. e. respectively.

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

c. One of the following courses (3 or 4 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 314</td>
<td>Matrix Algebra with Computational Applications</td>
<td>3</td>
</tr>
<tr>
<td>MTH 317H</td>
<td>Honors Linear Algebra</td>
<td>4</td>
</tr>
</tbody>
</table>

(5) In item 3. d. add the following course:

CSE 425 Introduction to Computer Security 3

(6) Add the following transcriptable concentrations:

Concentrations in Computer Science
The Department offers the following concentrations to students wishing an area of specialization in their degree. The concentrations are available to, but not required of, any student enrolled in the Bachelor of Science degree program in Computer Science. NOTE: Completing the Bachelor of Science degree in Computer Science with a concentration may require more than 120 credits. Upon completion of the required courses for a concentration, certification will appear on the student’s official transcript. Students may select no more than one concentration.

For any concentration, 3 credits of CSE 499 Undergraduate Research related to the subject area may be applied with approval of the Department of Computer Science and Engineering.

Artificial Intelligence
To complete a Bachelor of Science degree in Computer Science with an artificial intelligence concentration, students must complete the requirements for the bachelor’s degree, including the following:

Two of the following courses (6 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSE 404</td>
<td>Intro to Machine Learning</td>
<td>3</td>
</tr>
<tr>
<td>CSE 440</td>
<td>Introduction to Artificial Intelligence</td>
<td>3</td>
</tr>
<tr>
<td>CSE 482</td>
<td>Big Data Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

Three of the following courses not taken above (9 to 12 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSE 402</td>
<td>Biometrics and Pattern Recognition</td>
<td>3</td>
</tr>
<tr>
<td>CSE 404</td>
<td>Intro to Machine Learning</td>
<td>3</td>
</tr>
<tr>
<td>CSE 434</td>
<td>Autonomous Vehicles</td>
<td>3</td>
</tr>
<tr>
<td>CSE 440</td>
<td>Introduction to Artificial Intelligence</td>
<td>3</td>
</tr>
<tr>
<td>CSE 482</td>
<td>Big Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CSE 803</td>
<td>Computer Vision</td>
<td>3</td>
</tr>
<tr>
<td>ADV 401</td>
<td>Neuromarketing and Consumer Decisions</td>
<td>3</td>
</tr>
<tr>
<td>LIN 401</td>
<td>Introduction to Linguistics</td>
<td>4</td>
</tr>
<tr>
<td>LIN 424</td>
<td>Introduction to Phonetics and Phonology</td>
<td>3</td>
</tr>
<tr>
<td>LIN 427</td>
<td>Laboratory Phonetics</td>
<td>3</td>
</tr>
<tr>
<td>LIN 431</td>
<td>Introduction to Morphology</td>
<td>3</td>
</tr>
<tr>
<td>LIN 434</td>
<td>Introduction to Syntax</td>
<td>3</td>
</tr>
<tr>
<td>LIN 437</td>
<td>Introduction to Semantics and Pragmatics</td>
<td>3</td>
</tr>
<tr>
<td>LIN 463</td>
<td>Introduction to Cognitive Science</td>
<td>3</td>
</tr>
<tr>
<td>LIN 471</td>
<td>Sociolinguistics</td>
<td>3</td>
</tr>
<tr>
<td>MI 484</td>
<td>Human Robot Interaction (W)</td>
<td>3</td>
</tr>
<tr>
<td>MTH 468</td>
<td>Predictive Analysis</td>
<td>3</td>
</tr>
<tr>
<td>NEU 301</td>
<td>Introduction to Neuroscience I</td>
<td>3</td>
</tr>
<tr>
<td>NEU 302</td>
<td>Introduction to Neuroscience II</td>
<td>3</td>
</tr>
<tr>
<td>PHL 330</td>
<td>Formal Deductive Reasoning</td>
<td>4</td>
</tr>
<tr>
<td>PHL 331</td>
<td>Formal Practical Reasoning</td>
<td>4</td>
</tr>
<tr>
<td>PHL 432</td>
<td>Logic and its Metatheory</td>
<td>4</td>
</tr>
<tr>
<td>PSY 301</td>
<td>Cognitive Neuroscience</td>
<td>3</td>
</tr>
</tbody>
</table>
Computer Systems
To complete a Bachelor of Science degree in Computer Science with a computer systems concentration, students must complete the requirements for the bachelor's degree, including the following:
All of the following courses (9 credits):
CSE 410 Operating Systems 3
CSE 422 Computer Networks 3
CSE 450 Translation of Programming Languages 3
Two of the following courses (6 credits):
CSE 415 Introduction to Parallel Programming 3
CSE 420 Computer Architecture 3
CSE 425 Introduction to Computer Security 3
CSE 434 Autonomous Vehicles 3
CSE 472 Computer Graphics 3
CSE 480 Database Systems 3

Cybersecurity
To complete a Bachelor of Science degree in Computer Science with a cybersecurity concentration, students must complete the requirements for the bachelor's degree, including the following:
All of the following courses (6 credits):
CSE 402 Biometrics and Pattern Recognition 3
CSE 425 Introduction to Computer Security 3
Three of the following courses (9 credits):
CSE 410 Operating Systems 3
CSE 422 Computer Networks 3
CSE 431 Algorithm Engineering 3
CSE 434 Autonomous Vehicles 3
CSE 480 Database Systems 3
CSE 482 Big Data Analysis 3
MI 239 Digital Footprints: Privacy and Online Behavior 3
MTH 416 Introduction to Algebraic Coding 3

Multimedia and Graphics
To complete a Bachelor of Science degree in Computer Science with a multimedia and graphics concentration, students must complete the requirements for the bachelor's degree, including the following:
Two of the following courses (6 credits):
CSE 471 Media Processing and Multimedia Computing 3
CSE 472 Computer Graphics 3
CSE 476 Mobile Application Development 3
CSE 477 Web Application Architecture and Development 3
CSE 803 Computer Vision 3
CMSE 402 Data Visualization Principles and Techniques 3
FLM 230 Introduction to Film 3
FLM 260 Introduction to Digital Film and Emergent Media 3
MI 231 Game and Interactive Media Development 3
MI 247 Three-Dimensional Graphics and Design 3
MI 337 Compositing and Special Effects 3
MI 347 Advanced Three-Dimensional Computer Animation 3
MI 350 Evaluating Human-Centered Technology 3
MI 377 Advanced 3D Modeling 3
MI 445 Game Design and Development I 3
MI 450 Creating Human-Centered Technology 3
MI 455 Game Design and Development II 3
MI 462 Social Media and Social Computing 3
MI 482 Building Virtual Worlds (W) 3
MI 497 Game Design Studio 3
STA 380 Electronic Art 3
Software Engineering
To complete a Bachelor of Science degree in Computer Science with a software engineering concentration, students must complete the requirements for the bachelor’s degree, including the following:
The following course (3 credits):
CSE 435 Software Engineering 3
Four of the following courses (12 credits):
CSE 431 Algorithm Engineering 3
CSE 476 Mobile Application Development 3
CSE 477 Web Application Architecture and Development 3
CSE 480 Database Systems 3
CSE 870 Advanced Software Engineering 3
MI 350 Evaluating Human-Centered Technology 3
MI 420 Interactive Prototyping 3
MI 450 Creating Human-Centered Technology (W) 3

Theory
To complete a Bachelor of Science degree in Computer Science with a theory concentration, students must complete the requirements for the bachelor’s degree, including the following:
The following course (3 credits):
CSE 460 Computability and Formal Language Theory 3
One of the following courses (3 credits):
CSE 431 Algorithm Engineering 3
CSE 830 Design and Theory of Algorithms 3
Three of the following courses (9 or 10 credits):
CSE 835 Algorithmic Graph Theory 3
CSE 860 Foundations of Computing 3
MTH 299 Transitions 4
MTH 416 Introduction to Algebraic Coding 3
MTH 417 Topics in Number Theory 3
MTH 880 Combinatorics I 3
MTH 882 Combinatorics II 3

Effective Fall 2024.

3. Request to change the requirements in the Minor in Computer Science in the Department of Computer Science and Engineering.
   a. Under the heading Requirements for the Minor in Computer Science make the following changes:

   Approved

   (1) In item 1., add the following course:
       CSE 300 Social, Ethical, and Professional Issues in Computing 1
   (2) In item 1., change the total credits from ‘12’ to ‘13’.
   (3) In item 2 add the following courses:
       CSE 380 Information Management and the Cloud 3
       CSE 434 Autonomous Vehicles 3

Effective Fall 2024.
COLLEGE OF NATURAL SCIENCE

1. Request to change the requirements for the Bachelor of Science degree in Environmental Biology/Zoology in the Department of Integrative Biology.

a. Under the heading Requirements for the Bachelor of Science Degree in Environmental Biology/Zoology make the following changes:

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

   The University’s Tier II writing requirement for the Environmental Biology/Zoology major is met by completing both of the following courses: Zoology 355L and 445. Those courses are referenced in item 3. below.

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

   One of the following groups of courses (8 or 10 credits):
   (1) PHY 221 Studio Physics for Life Scientists I  4
       PHY 222 Studio Physics for Life Scientists II  4
   (2) PHY 231 Introductory Physics I  3
       PHY 232 Introductory Physics II  3
       PHY 251 Introductory Physics Laboratory I  1
       PHY 252 Introductory Physics Laboratory II  1
   (3) PHY 183 Physics for Scientists and Engineers I  4
       PHY 184 Physics for Scientists and Engineers II  4
       PHY 191 Physics Laboratory for Scientists, I  1
       PHY 192 Physics Laboratory for Scientists, II  1
   (4) LB 273 Physics I  4
       LB 274 Physics II  4
   (5) PHY 193H Honors Physics I-Mechanics  4
       PHY 294H Honors Physics II-Electromagnetism  4
       PHY 191 Physics Laboratory for Scientists, I  1
       PHY 192 Physics Laboratory for Scientists, II  1
   (3) In item 3. g. delete the following courses:

       IBIO 306 Invertebrate Biology  4
       IBIO 483 Environmental Physiology (W)  4

   Add the following courses:

       GEO 221 Introduction to Geographic Information  3
       GEO 221L Introduction to Geographic Information Laboratory  1

   Replace the note with the following:

   Both Geography 221 and 221L must be completed to satisfy this requirement. Forestry 419 may be substituted for GEO 221/221L. Forestry 340 may be substituted for Plant Biology 441.

   (4) Replace item 3. h. with the following:

   At least one course from each of the following three groups of courses totaling at least 13 credits:
   (1) FW 471 Ichthyology  4
       IBIO 306 Invertebrate Biology  4
       IBIO 328 Comparative Anatomy and Biology of Vertebrates  4
       IBIO 360 Biology of Birds  4
       IBIO 365 Biology of Mammals  4
       IBIO 384 Biology of Amphibians and Reptiles (W)  4
   (2) PLB 218 Plants of Michigan  3
       PLB 418 Plant Systematics  3
Effective Fall 2024.

2. Request to change the requirements for the Bachelor of Science degree in Integrative Biology in the Department of Integrative Biology.

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

   **Approved**

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

       The University's Tier II writing requirement for the Zoology major is met by completing both of the following courses: Zoology 355L and 445. Those courses are referenced in item 3. below.

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

       One of the following groups of courses (8 or 10 credits):

       (1) PHY 221 Studio Physics for Life Scientists I 4
           PHY 222 Studio Physics for Life Scientists II 4
       (2) PHY 231 Introductory Physics I 3
           PHY 232 Introductory Physics II 3
           PHY 251 Introductory Physics Laboratory I 1
           PHY 252 Introductory Physics Laboratory II 1
       (3) PHY 183 Physics for Scientists and Engineers I 4
           PHY 184 Physics for Scientists and Engineers II 4
           PHY 191 Physics Laboratory for Scientists, I 1
           PHY 192 Physics Laboratory for Scientists, II 1
       (4) LB 273 Physics I 4
           LB 274 Physics II 4
       (5) PHY 193H Honors Physics I-Mechanics 4
           PHY 294H Honors Physics II-Electromagnetism 4
           PHY 191 Physics Laboratory for Scientists, I 1
           PHY 192 Physics Laboratory for Scientists, II 1

   (3) In item 3. j. delete the following course:

       IBIO 483 Environmental Physiology (W) 4

       Add the following course:

       IBIO 483 Environmental Physiology 3

   Effective Fall 2024.
Request to change the requirements for the Bachelor of Arts degree in Zoology in the Department of Integrative Biology.

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

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

   The University's Tier II writing requirement for the Zoology major is met by completing both of the following courses: Zoology 355L and 445. Those courses are referenced in item 3. below.

   (2) In item 3. d., add the following course:

   PHY 221 Studio Physics for Life Scientists I 4

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

   WRA 341 Nature, Environmental, and Travel Writing 3

   (4) In item 3. i. (2) Communications, delete the following courses:

   CSUS 325 Study and Practice of Communication for Sustainability (W) 3
   FW 435 Integrated Communications for the Fisheries and Wildlife Professional 3

   Add the following course:

   CMSE 201 Computational Modeling and Data Analysis I 4

Effective Fall 2024.

Request to change the requirements for the Bachelor of Science degree in Zoology in the Department of Integrative Biology.

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

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

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

   One of the following groups of courses (8 or 10 credits):
   (1) PHY 221 Studio Physics for Life Scientists I 4
   (2) PHY 222 Studio Physics for Life Scientists II 4
   (2) PHY 231 Introductory Physics I 3
   (2) PHY 232 Introductory Physics II 3
   (3) PHY 251 Introductory Physics Laboratory I 1
   (3) PHY 252 Introductory Physics Laboratory II 1
   (4) PHY 183 Physics for Scientists and Engineers I 4
   (4) PHY 184 Physics for Scientists and Engineers II 4
   (4) LB 273 Physics I 4
   (4) LB 274 Physics II 4
(5) PHY 193H Honors Physics I-Mechanics  4
PHY 294H Honors Physics II-Electromagnetism  4
PHY 191 Physics Laboratory for Scientists, I   1
PHY 192 Physics Laboratory for Scientists, II   1

(2) In item 3. g. Animal Behavior and Neurobiology concentration, make the following changes:

(a) In item (2), delete the following course:
IBIO 402 Neurobiology     3
Add the following course:
IBIO 300 Neurobiology     3

(b) Replace item (3) with the following:
One of the following, either (a) or (b) (4 or 8 credits):
   (a) One of the following courses (4 credits):
       IBIO 306 Invertebrate Biology   4
       IBIO 328 Comparative Anatomy and Biology of Vertebrates  4
   (b) Two of the following courses (8 credits):
       FW 471 Ichthyology    4
       IBIO 360 Biology of Birds    4
       IBIO 365 Biology of Mammals    4
       IBIO 384 Biology of Amphibians and Reptiles (W)  4

(c) In item (4) delete the following courses:
ANS 405 Endocrinology of Reproduction   4
FW 419 Applications of Geographic Information Systems to Natural Resource Management  4
GEO 324 Remote Sensing of the Environment  4
GEO 325 Geographic Information Systems  3
IBIO 483 Environmental Physiology (W)   4
PSY 402 Sensation and Perception (W)   3

Add the following courses:
FW 419 Applications of Geographic Information Systems to Natural Resource Management  4
IBIO 483 Environmental Physiology   3
NEU 310 Psychology and Biology of Human Sexuality   3
NEU 416 Development of the Nervous System Through the Lifespan   3

(3) Delete the Cell and Developmental Biology concentration.

Students currently enrolled in the major have until US28 to complete the requirements for this concentration and have it noted on the student’s academic record.

(4) In item 3. g. Ecology, Evolution, and Organismal Biology concentration make the following changes:

(a) Replace item (2) with the following:
Two of the following courses (8 credits):
FW 471 Ichthyology    4
IBIO 306 Invertebrate Biology    4
IBIO 328 Comparative Anatomy and Biology of Vertebrates 4
IBIO 360 Biology of Birds 4
IBIO 365 Biology of Mammals 4
IBIO 384 Biology of Amphibians and Reptiles (W) 4

(b) In item (3) delete the following courses:
IBIO 316 General Parasitology 3
IBIO 483 Environmental Physiology (W) 4

Add the following course:
IBIO 483 Environmental Physiology 3

(c) In item (4) delete the following courses:
GEO 324 Remote Sensing of the Environment 4
GEO 325 Geographic Information Systems 3

(5) Delete the Genetics concentration.

Students currently enrolled in the major have until US28 to complete the requirements for this concentration and have it noted on the student's academic record.

(6) Delete the General Zoology concentration.

Students currently enrolled in the major have until US28 to complete the requirements for this concentration and have it noted on the student's academic record.

(7) In item 3. g. Marine Biology concentration, make the following changes:

(a) In item (1) change the total credits from ‘23’ to ‘21’.

(b) In item (1) delete the following courses:
IBIO 303 Oceanography 4
IBIO 483 Environmental Physiology (W) 4

Add the following courses:
GLG 303 Oceanography 3
IBIO 483 Environmental Physiology 3

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

One course from each of the following groups of courses (7 or 8 credits):

(a) FW 471 Ichthyology 4
IBIO 306 Invertebrate Biology 4
IBIO 360 Biology of Birds 4
IBIO 365 Biology of Mammals 4
IBIO 384 Biology of Amphibians and Reptiles (W) 4

(b) BMB 401 Comprehensive Biochemistry 4
CEM 383 Introductory Physical Chemistry I 3
FW 416 Marine Ecology and Management 3
FW 424 Wildlife Population Analysis and Management 3
GEO 221 Introduction to Geographic Information 3
And GEO 221L Introduction to Geographic Information Laboratory 1
IBIO 357 Global Change Biology (W) 3
MMG 425 Microbial Ecology 3

Both GEO 221 and 221L must be completed to satisfy this requirement.
PART I - NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES – continued

February 15, 2024

(d) In item (3) delete the following courses:

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

Add the following course:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLB 424</td>
<td>Algal Biology</td>
<td>3</td>
</tr>
</tbody>
</table>

(8) Replace the Zoo and Aquarium Science concentration with the following:

(1) All of the following courses (25 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBIO 313</td>
<td>Animal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>IBIO 341</td>
<td>Fundamental Genetics</td>
<td>4</td>
</tr>
<tr>
<td>IBIO 355</td>
<td>Ecology</td>
<td>3</td>
</tr>
<tr>
<td>IBIO 355L</td>
<td>Ecology Laboratory (W)</td>
<td>1</td>
</tr>
<tr>
<td>IBIO 369</td>
<td>Zoo Animal Biology and Conservation</td>
<td>3</td>
</tr>
<tr>
<td>IBIO 369</td>
<td>Introduction to Zoo and Aquarium Science</td>
<td>3</td>
</tr>
<tr>
<td>IBIO 445</td>
<td>Evolution (W)</td>
<td>3</td>
</tr>
<tr>
<td>IBIO 489</td>
<td>Seminar in Zoo and Aquarium Science</td>
<td>1</td>
</tr>
<tr>
<td>IBIO 498</td>
<td>Internship in Zoo and Aquarium Science</td>
<td>4</td>
</tr>
</tbody>
</table>

(2) Two of the following courses (8 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FW 471</td>
<td>Ichthyology</td>
<td>4</td>
</tr>
<tr>
<td>IBIO 306</td>
<td>Invertebrate Biology</td>
<td>4</td>
</tr>
<tr>
<td>IBIO 328</td>
<td>Comparative Anatomy and Biology of Vertebrates</td>
<td>4</td>
</tr>
<tr>
<td>IBIO 360</td>
<td>Biology of Birds</td>
<td>4</td>
</tr>
<tr>
<td>IBIO 365</td>
<td>Biology of Mammals</td>
<td>4</td>
</tr>
<tr>
<td>IBIO 384</td>
<td>Biology of Amphibians and Reptiles (W)</td>
<td>4</td>
</tr>
</tbody>
</table>

(3) Three additional courses of at least 3 credits selected from a list of approved courses that is available from the Department of Integrative Biology.

(4) Integrative Biology courses that are not listed above must be approved in advance by the student’s academic advisor. Courses offered by other departments may be substituted if approved in advance by the student’s academic advisor.

Effective Fall 2024.
PART II - NEW COURSES AND CHANGES

COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

CSS 865   Environmental Organic Chemistry
Spring of even years. Fall of odd years. 3(3-0) RB: Students with an environmental science background and course training in general or organic chemistry
Fate and transformation of organic contaminants in the environment Effective Fall Semester 2025

CSS 880   Scientific Communication and Professional Development
Spring of every year. Fall of every year. 4(0-2) 2(2-0) RB: Recommended for graduate students in CSS
Interactive professional experiences including grant preproposal preparation and presentation, scientific presentations, mock position interviews, and resume preparation. Career management and pathways, scientific communication, and leadership skills designed to prepare students to become successful professionals in STEM. Request the use of the Pass-No Grade (P-N) system. Effective Fall Semester 2025

FOR 340L   Forest Ecology Laboratory
Fall of every year. 4(0-3) 2(0-6) P: ((CSS 210) and completion of Tier I writing requirement) and (FOR 340 or concurrently) and (PLB 105 or BS 162 or LB 144) RB: IBIO 355
Field studies and data analysis of ecological processes central to the sustainable management of forest ecosystems. Field exercises cover primary production, community structure, soil resources, biodiversity, succession, nutrient cycling, critiques of primary literature. Weekend field trips required. Field studies and data analysis of ecological processes central to the sustainable management of forest ecosystems. Field exercises cover primary production, community structure, soil resources, biodiversity, succession, nutrient cycling, critiques of primary literature. Pre-semester field camp required. SA: FOR 404L Effective Fall Semester 2023

COLLEGE OF ENGINEERING

CE 840   Introduction to Transportation Engineering
Fall of every year. Spring of every year. 3(3-0) A student may earn a maximum of 3 credits in all enrollments for this course. R: Open to graduate students in the College of Engineering or in the Department of Civil and Environmental Engineering or in the Civil Engineering Major. A student may earn a maximum of 3 credits Not open to students with credit in CE 341.
Introduction to transportation engineering, including: transportation planning, traffic engineering, geometric design, traffic flow and highway capacity, queuing theory, traffic control, and highway safety. Effective Fall Semester 2024

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.
Introduction to information management and cloud computing. Effective Fall Semester 2024
CSE 415  Introduction to Parallel Computing  
Spring of every year. 3(3-0)  P: (CSE 320 or ECE 331) and (MTH 314 or ECE 280) and CSE 331  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. Not open to students with credit in CMSE 401.  
Principles and techniques of parallel computing including architectures, programming models, and algorithm design.  
Effective Fall Semester 2024

CSE 425  Introduction to Computer Security  
Fall of every year. Spring of every year. Spring of every year. 3(3-0)  P: CSE 325  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.  
Theory and practice of computer security engineering.  
Effective Fall Semester 2025

CSE 476  Mobile Application Development  
Spring of every year. 3(3-0)  P: CSE 320 or CSE 331 or CSE 335  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.  
Software development techniques for mobile devices such as smart phones and tablet computers.  
Effective Fall Semester 2025

CSE 477  Web Application Architecture and Development  
Spring of every year. 3(3-0)  P: CSE 320 or CSE 331 or CSE 335  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.  
Fundamentals of World Wide Web (WWW) programming, including protocols, client-server interaction, markup languages, client- and server-side programming, databases, and remote procedure calls. Development of a WWW server and WWW sites with browser-based interfaces to remote databases. Students will incorporate scaling, throughput, and latency considerations in the development of widely distributed systems. Fundamentals of World Wide Web (WWW) programming, including protocols, client-server interaction, markup languages, client- and server-side programming, databases, and remote procedure calls. Development of a WWW server and WWW sites with browser-based interfaces to remote databases.  
Effective Fall Semester 2025

CSE 480  Database Systems  
Spring of every year. 3(3-0)  P: CSE 331 or CSE 335  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.  
Principles and technologies for database systems, algorithms, languages, and applications.  
SA: CPS 480  
Effective Fall Semester 2025

CSE 482  Big Data Analysis  
Spring 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)  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.  
Principles and techniques for large-scale data analysis and applications.  
Effective Fall Semester 2025
PART II - NEW COURSES AND CHANGES – continued - 13
February 15, 2024

CSE 493   Selected Topics in Computing
Fall of every year. Spring of every year.1 to 4 credits. A student may earn a maximum of 9 credit
in all enrollments for this course. R: Approval of department; application required.
NEW
Topics selected to supplement and enrich existing courses and lead to the development
of new courses.
Effective Fall Semester 2024

CSE 494   Independent Study in Data Science
Fall of every year. Spring of every year. Summer of every year.1 to 3 credits. Interdepartmental
with Computational Mathematics, Science, & Engineering.
A student may earn a maximum of 3 credit in all enrollments for this
course. R: Open to students in the Computational Data Science Major or in the Computer
Engineering Major or in the Computer Science Major or in the Data Science Major. Approval of
department; application required.
NEW
Supervised individual study in an area of Data Science
Effective Fall Semester 2024

CSE 498   Collaborative Design (W)
Fall of every year. Spring of every year.4(2-4) P: (CSE 402 or CSE 415 or CSE 422 or CSE 431 or
CSE 440 or CSE 450 or CSE 471 or CSE 476 or CSE 477 or CSE 482) and (CSE 402 or CSE
420 or CSE 425 or CSE 435 or CSE 440 or CSE 460 or CSE 472 or CSE 477 or CSE 480 or CSE
482) and ((CSE 300 and CSE 325 and CSE 335) and completion of Tier I writing requirement) P:
(CSE 402 or CSE 415 or CSE 422 or CSE 431 or CSE 440 or CSE 450 or CSE 471 or CSE 476
or CSE 477 or CSE 482) and (CSE 402 or CSE 420 or CSE 425 or CSE 435 or CSE 440 or CSE
460 or CSE 472 or CSE 477 or CSE 480 or CSE 482) and ((CSE 300 and CSE 325 and CSE 335
and CSE 380) and completion of Tier I writing requirement) R: Open to students in the Computer
Science Major or in the Lyman Briggs Computer Science Coordinate Major.
Development of a comprehensive software and/or hardware solution to a problem in a
team setting with emphasis on working with a client. Participation in a design cycle
including specification, design, implementation, testing, maintenance, and
documentation. Issues of professionalism, ethics, and communication. Students may be
asked to sign a non-disclosure agreement ("NDA") or an assignment of intellectual
property rights ("IP Assignment") to work with some project sponsors.
SA: CSE 449, CSE 478, CSE 479
Effective Fall Semester 2025

ISE 800   Problems in Science or Mathematics for Teachers
Fall of every year. Spring of every year. Summer of every year.1 to 5 credits. A student may earn
a maximum of 15 credit in all enrollments for this course. RB: Secondary certification in biological
sciences, physical sciences or chemistry; secondary certification in Mathematics or Mathematics
Education. R: Approval of college.
REINSTATEMENT Supervised study of problems or issues in biological science, or physical sciences, or
mathematical sciences.
SA: NSC 800, SME 800
Effective Fall Semester 2024
March 7, 2024

MEMORANDUM

TO: University Committee on Curriculum
FROM: Subcommittee B
RE: Report of Subcommittee B - Meeting February 22, 2024

Members present: Schneider [Agriculture and Natural Resources], Pucillo [Law], Munetz for Boucher [Social Science], Stein-Roggenbuck [James Madison College], Morin [Non-College Faculty], Speas [UCC].

Members absent: Llyod [COGS].

Others present: Alysa Lucas [VPUE], Nathan James [VPUE].

The Subcommittee considered the agenda dated February 22, 2024. Actions taken by the Subcommittee are noted on the attached copy of the Subcommittee B Agenda dated February 22, 2024.

S:\share\SUBB0222
PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

1. Request to change the requirements for Disciplinary Teaching Minor in Agriculture, Food and Natural Resource Education in the Department of Community Sustainability. The Teacher Education Council (TEC) will consider this request at its February 12, 2024 meeting.

   a. Under the heading AGRICULTURE, FOOD AND NATURAL RESOURCE EDUCATION make the following changes:

      (1) In item 1. change the total credits from ‘14’ to ‘16’ and delete the following courses:

          TE 409 Crafting Teaching Practices in the Secondary Teaching Minor 1
          TE 503 Internship in Teaching Diverse Learners in Additional Endorsement Areas 1

          Add the following courses:

          CSS 210 Fundamentals in Soil Science 3
          CSUS 493 Professional Internship in Community Sustainability 1

      (2) Delete item 3. and renumber items 4. and 5. Respectively.

      (3) Change the total number of credits required for the minor from ‘28 or 29’ to ‘28’.

Effective Fall 2024.

COLLEGE OF SOCIAL SCIENCE

1. Request to change the requirements for the Disciplinary Teaching Minor available for secondary certification in Psychology in the Department of Psychology. The Teacher Education Council (TEC) will consider this request at its February 12, 2024 meeting.

   a. Under the heading Psychology make the following changes:

      (1) Delete the following course:

          TE 409 Crafting Teaching Practices in the Secondary Teaching Minor 1

          Add the following course:

          TE 438 Teaching High School Psychology 3

      (2) Change the total credits from ‘24’ to ‘26’.

Effective Fall 2024.
PART II - NEW COURSES AND CHANGES

VICE PROVOST FOR UNDERGRADUATE EDUCATION

UGS 105  First-Year Seminar Reflection
Fall of every year. 1 credit. A student may earn a maximum of 2 credits in all enrollments for this course. P: UGS 102 or UGS 103 R: Open to freshmen. A student may earn a maximum of 8 credits
UGS 102, 103, and 105
NEW  Application of global and experiential learning to personal and professional growth. Connection between prior learning experiences off-campus with campus engagement. Offered first half of semester. 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 2024

JAMES MADISON COLLEGE

MC 294  Qualitative Research Methods
Fall of every year. 4(3-0) P: MC 111 and MC 201 and MC 202 or approval of college R: Open to undergraduate students in the James Madison College.
NEW  Introduces students to qualitative methods of social science inquiry. Effective Fall Semester 2024

MC 320  Politics, Society and Economy in the Third World Problems and Paradoxes in Global Development
Fall of every year. 4(3-0) P: (MC 221 or MC 231 or MC 281) and Completion of Tier I Writing Requirement R: Open to students in the James Madison College or in the International Relations Major or in the Social Relations and Policy major or approval of college.
Politics of social and economic change. Policies and strategies of development and of state and nation building in Third World countries. Impact of international political, security, and economic structures on the process of state and nation building in the Third World. Analyze the historical, political, economic and social dimensions of global development as both a paradigm and project. Contextualize nation-and-state building efforts in the postcolonial world. Effective Fall Semester 2024

MC 483  Simulating International Relations (D)
Spring of odd years. 4(3-0) RB: ((MC 220 or concurrently) and MC 221) and completion of Tier I writing requirement
NEW  Theories of conflict and cooperation in international politics, diplomatic tools to navigate those issues, simulations to apply theory to real-world scenarios such as climate change, humanitarian intervention or border disputes. Effective Fall Semester 2025
March 7, 2024

MEMORANDUM

TO: University Committee on Curriculum

FROM: Subcommittee C

RE: Report of Subcommittee C - Meeting of February 8, 2024

Members present: Delgado [Residential College in Arts and Humanities], Dobbins [Arts and Letters], Jagger [Business], Wensloff [Communication Arts and Sciences], Greenwalt [Education], Napoleon for Biedenbender [Music], Speas [UCC].

Members absent: Breuning [ASMSU], Kirtley [COGS].

Others present: Jennifer Marcy [Religious Studies], Amy DeRogatis [Religious Studies], Morgan Shipley [Religious Studies].

The Subcommittee considered the Agenda dated February 8, 2024. Actions taken by the Subcommittee are noted on the attached copy of the Subcommittee C Agenda dated February 8, 2024.

s:\share\SUBC0208
PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

COLLEGE OF ARTS AND LETTERS

1. Request to change the requirements for the Disciplinary Teaching Minor in English that is available for secondary certification in the Department of English. The Teacher Education Council (TEC) will consider this request at its February 12, 2024 meeting.

   a. Under the heading ENGLISH replace the entire entry with the following:

   1. All of the following courses (12 credits):
      ENG  210  Introduction to Literary Studies     3
      ENG 280  Introduction to Literary Theories    3
      ENG  302  Introduction to English Language Studies    3
      ENG  308  Readings in Literature for Young Adults 3

   2. One of the following courses (3 credits):
      ENG 360  Studies in Postcolonial and Diaspora Literature (W)   3
      ENG 362  Studies in Modern/Contemporary Literature (W)    3
      ENG 364  Studies in 18th-/19th-Century Literature (W)    3
      ENG 368  Studies in Medieval/Early Modern Literature (W)    3

   3. One of the following courses (3 or 4 credits):
      ENG 408  Critical Literacies and Communities 4
      ENG 413  Critical Questions in Language and Composition (W) 3

   4. All of the following courses (7 credits):
      TE  310  Clinical Experience in English Education I   3
      TE  411  Seminar in English Education I    3
      TE  503  Internship in Teaching Diverse Learners in Additional Endorsement Areas 1

   25 or 26

   Effective Fall 2024.

ELI BROAD COLLEGE OF BUSINESS

1. Request to 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) will consider this request at its February 19, 2024 meeting.

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

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

      FI  859  Mergers and Acquisitions 1.5
      FI  863  Corporate Restructuring and Governance 1.5
      FI  875  Behavioral Finance I 1.5
      MKT 811  Brand Insights 1.5
      MKT 829  Digital Marketing 1.5

   Effective Fall 2024.
COLLEGE OF COMMUNICATION ARTS AND SCIENCES

1. Request to establish a Graduate Certificate in Health and Risk Communication in the College of Communication Arts and Sciences. The University Committee on Graduate Studies (UCGS) approved this request at its January 22, 2024 meeting.

   a. Background Information:

      The existent Master of Arts Degree in Health Communication has traditionally been a strong-suit of MSU – with a Health and Risk Communication Center of over 50 faculty, multiple NIH- and foundation grants, and connections to university-, state-, federal-, and global health authorities. Moreover, at both the undergraduate as well as the doctoral level, health communication is one of the most widely studied communication context in the college (next to media).

      Critically, however, there is a strong demand for sub-areas of expertise within health communication that would benefit working professionals wanting to upgrade their knowledge and skills in a shorter period and in a way more commensurate with the working professionals' needs and expectations. Currently, the master's program recruits primarily from on-campus students and while some of them work, they are not working professionals. The certificate would open an entire new target audience – working professionals from the broad fields of health communication, public health, and health education, who want to upgrade their career, but would not enroll directly in an on-site master’s program. This provides a world-class professional development opportunity for individuals to enhance their expertise in health communication. The work world of mid-career health communication professionals is changing rapidly, and they need a way to update their skills, particularly with regard to the cutting-edge developments in health communication on social media, new forms of health interventions/promotion in an ever-changing media environment, and new challenges as evidenced by Covid.

   b. Academic Programs Catalog Text:

      The Graduate Certificate in Health and Risk Communication is designed for working professionals seeking to master the art of effective communication in vital health and risk contexts. The program equips students with the skills to create and disseminate health information, communicate strategically about risk, and confidently engage diverse audiences in digital, community, and workplace settings to foster healthy behaviors and reduce unhealthy or risky behavior patterns.

      Admission

      To be considered for admission to the Graduate Certificate in Health and Risk Communication, applicants must:

      1. have completed a bachelor's degree;
      2. provide a personal statement which includes the motivations, expectations, and prior experience relevant to the certificate program;
      3. provide a resume or curriculum vitae;
      4. submit test scores of English language prof iciency if English is not their first language.

      Requirements for the Graduate Certificate in Health and Risk Communication

      Students must complete 9 credits from the following courses:

      1. Both of the following courses (6 credits):
         CAS 825 Mass Communication and Public Health
         CAS 826 Health Communication for Diverse Populations
      2. One of the following courses (3 credits):
         COM 828 Cross-Cultural Communication
         COM 860 Persuasion
         CAS 892 Special Topics

      Students selecting CAS 892 Special Topics must enroll in the Risk Communication section or the Communication and Technology section.

      Effective Summer 2024.
2. Request to change the requirements for the Bachelor of Arts degree in Communication in the Department of Communication.

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

   (1) In item 3. a. (4) (b) under the **Communication Science, Analytics and Research Methods** concentration, replace item 1. with the following:

   Both of the following courses (6 credits):
   
   COM 301 Special Topics I Communication Sciences, Analytics and Research Methods 3
   COM 494 Practicum in Communication Research and Instruction 3
   
   The topic taken in COM 301 must be different than the topic taken in COM 301 in item 2. if COM 301 is used to fulfill the requirement in item 2.

   (2) In item 3. a. (4) (b) under the **Communication Science, Analytics and Research Methods** concentration, replace the note in item 2. with the following:

   Students who use COM 301 to fulfill this requirement must take a different topic than the topic taken in requirement 1. COM 301 may be taken two times to fulfill this requirement with different topics.

   (3) In item 3. a. (4) (b) under the **Health Communication** concentration, in item 2. delete the following course:

   HM 101 Introduction to Public Health 3
   
   Add the following course:

   PH 101 Introduction to Public Health 3

   (4) In item 3. a. (4) (b) under the **Intercultural Communication** concentration, in item 2. delete the following course:

   CSUS 250 Global Issues in Agriculture and Natural Resources 3

   (5) In item 3. a. (4) (b) under the **Mediated Communication** concentration, in item 2. delete the following course:

   WRA 425 Advanced Multimedia Writing 3

   Effective Summer 2024.

3. Request to change the requirements for **Master of Arts Degree in Media and Information**. The University Committee on Graduate Studies (UCGS) will consider this request at its February 19, 2024 meeting.

   a. Under the heading **Master of Arts Degree in Media and Information** replace items 1. and 2. with the following:

   1. The following core course (1 credit):
      
      MI 810 Media and Information Seminar 1

   2. At least one of the following theories courses (3 credits):
      
      MI 820 Theories of Media and Information 3
      MI 831 Theories of Games and Interaction Design 3

   3. At least one of the following methods courses (3 credits):
      
      MI 803 Introduction to Quantitative Research Methods 3
      MI 841 Advanced Methods of Understanding Users 3

   4. At least three of the following specialization classes (9 credits):
      
      MI 839 Game and Project Design Studio I 3
      MI 844 Interaction Design 3
      MI 845 Interactive Usability and Accessibility: Design and Evaluation 3
5. Additional elective course work at the 400-level or above to meet the 30 credits required for the degree. Students may take up to three different sections of MI 891. The course work must be approved by the student’s academic advisor. Not more than 6 elective credits may be taken from outside the college. Not more than 6 credits in media and information independent study or internship courses combined may be counted toward the requirements for the Master of Arts degree in Media and Information.

Effective Fall 2024.

COLLEGE OF EDUCATION

1. Request to change the requirements for the Doctor of Education degree in Educational Leadership in the Department of Educational Administration. The University Committee on Graduate Studies (UCGS) will consider this request at its February 19, 2024 meeting.

a. Under the heading Requirements for the Doctor of Education Degree in Educational Leadership make the following changes:

   (1) In item 1., delete the following courses:
   EAD 921 Educational Leadership and Transformation 3
   EAD 922 Analyzing Education Systems 3

   Add the following courses:
   EAD 921A Educational Leadership and Transformation I 2
   EAD 921B Educational Leadership and Transformation II 1
   EAD 922A Analyzing Education Systems I 2
   EAD 922B Analyzing Education Systems II 1

   (2) In item 2., delete the following course:
   EAD 924 Data and Decisions 3

   Add the following courses:
   EAD 924A Data and Decisions I 3
   EAD 924B Data and Decisions II 1

   (3) In item 3., change the credits of ‘EAD 980’ from ‘3’ to ‘2’.

Effective Fall 2024.
## PART II - NEW COURSES AND CHANGES

### COLLEGE OF ARTS AND LETTERS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Description</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Effective Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>GD 191</td>
<td>Special Topics in Graphic Design</td>
<td>Fall of every year. Spring of every year. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.</td>
<td>1-3</td>
<td></td>
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<tr>
<td></td>
<td>NEW</td>
<td>Researching and designing special topics in Graphic Design. Topics vary.</td>
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<td>Effective Fall Semester 2024</td>
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<tr>
<td>GNL 832</td>
<td>Project Management Principles for Nonprofits</td>
<td>On Demand.2(2-0)</td>
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<tr>
<td></td>
<td>NEW</td>
<td>Management of projects in the nonprofit sector. Management of project lifecycle, time, quality, and costs. Project management tools and processes for efficient planning and implementation.</td>
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<td>Effective Fall Semester 2024</td>
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<tr>
<td>GNL 855</td>
<td>Monitoring, Evaluation, and Learning for Nonprofits</td>
<td>On Demand.2(2-0)</td>
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<td>Effective Fall Semester 2024</td>
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<tr>
<td>ITL 101</td>
<td>Elementary Italian I</td>
<td>Fall of every year. Spring of every year. Fall of every year. Summer of every year.4(4-1) 4(3-2)</td>
<td>4-1</td>
<td>RB: No previous experience in Italian or approval of department. R: Not open to seniors.</td>
<td>Effective Fall Semester 2024</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practice in using and understanding Italian to develop listening, speaking, reading, and writing skills. Pronunciation, grammar, vocabulary, and cultural topics.</td>
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<tr>
<td>ITL 102</td>
<td>Elementary Italian II</td>
<td>Fall of every year. Spring of every year. Fall of every year. Spring of every year. Summer of every year.4(4-1) 4(3-2)</td>
<td>4-1</td>
<td>P: ITL 101 Further practice in using and understanding Italian to develop listening, speaking, reading, and writing skills. Pronunciation, grammar, vocabulary, and cultural topics.</td>
<td>Effective Fall Semester 2024</td>
</tr>
<tr>
<td>ITL 201</td>
<td>Second-Year Italian I</td>
<td>Fall of every year. Fall of every year. Spring of every year. Summer of every year.4(4-0) 4(3-2)</td>
<td>4-0</td>
<td>P: ITL 102 Intermediate-level review and development of aural comprehension, speaking, reading, and writing skills. Topics in Italian culture.</td>
<td>Effective Fall Semester 2024</td>
</tr>
<tr>
<td>ITL 202</td>
<td>Second-Year Italian II</td>
<td>Spring of every year. Fall of every year. Spring of every year. Summer of every year.4(4-0) 4(3-2)</td>
<td>4-0</td>
<td>P: ITL 201 Further review and development of aural comprehension, speaking, reading, and writing skills. Topics in Italian culture.</td>
<td>Effective Fall Semester 2024</td>
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<tr>
<td>ITL 330</td>
<td>Italian Culture and Civilization</td>
<td>Fall of every year. Fall of every year. Fall of every year. Summer of every year.3(3-0)</td>
<td>3-0</td>
<td>A student may earn a maximum of 6 credits in all enrollments for this course. P: ITL 202 Diverse aspects of political, social, economic, intellectual, artistic, and literary life of Italy. Class discussion in Italian of readings, films, television programs, and musical selections.</td>
<td>Effective Fall Semester 2024</td>
</tr>
</tbody>
</table>
ITL 350  Introduction to Italian Literature
Overview of Italian Literature
Spring of every year. Fall of every year. Spring of every year. 3(3-0) P: (ITL 320) and completion of Tier I writing requirement
Italian literature from its origins to the present. Reading and discussion in Italian of representative works from all genres.
Effective Fall Semester 2024

THR 211  Introduction to Lighting Design
Fall of every year. Spring of every year. Summer of every year. Fall of every year. Spring of every year. 3(2-2) P: THR 111 and THR 111L P: THR 111
Design and technical aspects regarding the design process and electrical production of stage lighting.
Effective Fall Semester 2024

THR 212  Introduction to Costume Design
Fall of odd years. Spring of even years. Fall of every year. Spring of every year. 3(2-2) P: THR 111 and THR 111L P: THR 111
Design and technical aspects regarding the process and production of stage costumes and costume history.
Effective Fall Semester 2024

THR 214  Introduction to Scene Design
Fall of every year. Spring of every year. Summer of every year. Fall of every year. Spring of every year. 3(2-2) P: THR 111 and THR 111L P: THR 111
Design and technical aspects regarding the design process and production of stage scenery.
Effective Fall Semester 2024

THR 216  Introduction to Sound Design
Fall of odd years. Spring of even years. Fall of every year. Spring of every year. 3(2-2) P: THR 111 and THR 111L P: THR 111
Design and technical aspects regarding the process and production of sound performance media, composition and sound reinforcement for the stage.
Effective Fall Semester 2024

THR 219  Introduction to Projection Design for the Stage
Fall of even years. Spring of odd years. Fall of every year. Spring of every year. 3(2-2) P: THR 111 and THR 111L P: THR 111
Design and technical aspects regarding the design process and production of projection performance media.
Effective Fall Semester 2024

THR 314  Stagecraft
Stagecraft: Scenic Construction Techniques
Fall of every year. Spring of every year. 3(2-2) A student may earn a maximum of 6 credits in all enrollments for this course. P: THR 111 and THR 111L RB: (THR 211 and THR 211L) or (THR 214 and THR 214L) RB: THR 111 or concurrently
Theory and techniques of stagecraft for theatrical production. Introduction to the use of tools, materials, and techniques in theatrical scenic construction.
Effective Fall Semester 2024

THR 361  Topics in Lighting Technology
Lighting Technology for Theatre
Fall of even years. Spring of even years. Spring of even years. 1 to 6 credits. 3(2-2) A student may earn a maximum of 9 credit in all enrollments for this course. A student may earn a maximum of 6 credits in all enrollments for this course. P: THR 211 RB: THR 211 or concurrently
Topics supplementing regular design and technology course offerings on a group study basis. Study of contemporary lighting equipment, electrical practices, and advanced light board operation.
Effective Fall Semester 2024
THR 362  Topics in Costume Technology  Costume Construction
Fall of odd years. Spring of odd years. Fall of even years. 1 to 6 credits. 3(2-4)
A student may earn a maximum of 9 credit in all enrollments for this course. A student may earn a maximum of 6 credits in all enrollments for this course. P: THR 212 P: THR 111 RB: THR 212 or concurrently
Topics supplementing regular design and technology course offerings on a group study basis. Sewing and Patterning methods used in theatrical costuming including flat patterning, draping, tailoring, pattern alteration, advanced stitching techniques.
Effective Fall Semester 2024

THR 363  Costume Crafts
Fall of odd years. 3(2-4)
A student may earn a maximum of 6 credits in all enrollments for this course. P: THR 111 RB: THR 212 or concurrently
NEW Craft techniques used in theatrical costuming and props. Projects and topics variable by term.
Effective Fall Semester 2024

THR 364  Topics in Scenery Technology  Scene Painting for Theatre
Fall of odd years. Spring of odd years. Spring of odd years. 1 to 6 credits. 3(2-2)
A student may earn a maximum of 9 credit in all enrollments for this course. A student may earn a maximum of 6 credits in all enrollments for this course. P: THR 214 RB: THR 111 or concurrently
Topics supplementing regular design and technology course offerings on a group study basis. Hands on study of traditional and contemporary techniques for painting 2D and 3D theatrical set pieces.
Effective Fall Semester 2024

THR 365  Props Design & Crafts for Theatre
Fall of even years. 3(2-2)
A student may earn a maximum of 6 credits in all enrollments for this course. RB: THR 111 or concurrently
NEW Artistic and technical principles of prop design and crafts. Play analysis, research and creative interpretation of props design.
Effective Fall Semester 2024

THR 369  Topics in Digital Technology  Media and Audio Engineering for Theatre
Fall of even years. Spring of even years. Fall of odd years. 1 to 6 credits. 3(2-2)
A student may earn a maximum of 9 credit in all enrollments for this course. A student may earn a maximum of 6 credits in all enrollments for this course. P: THR 216 or THR 219 RB: THR 111 or concurrently
Topics supplementing regular design and technology course offerings on a group study basis. System design and installation for media and audio technology use in theatre.
Effective Fall Semester 2024

THR 815  Drafting for Theatre
Spring 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 in the Master of Fine Arts in Theatre or approval of department.
NEW Introduction to the principles of hand and CAD drafting for theatre including terminology, USITT best practices and fundamentals, scale and dimension drawings, sections, ground plans, auxiliary views and reproduction processes.
Effective Fall Semester 2024

THR 861  Lighting Technology for Theatre
Spring of even 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 Master of Fine Arts in Theatre or approval of department.
NEW Study of contemporary lighting equipment, electrical practices, and advanced light board operation.
Effective Fall Semester 2024
PART II - NEW COURSES AND CHANGES – continued - 8
February 8, 2024

THR 862   Costume Construction
Fall of even years.3(0-6) 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 in the Master of Fine Arts in Theatre or approval of department.

NEW Sewing and Patterning methods used in theatrical costuming including flat patterning, draping, tailoring, pattern alteration, advanced stitching techniques.
Effective Fall Semester 2024

THR 863   Costume Crafts
Fall of odd years.3(0-6) 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 in the Master of Fine Arts in Theatre or approval of department.

NEW Sewing and Patterning methods used in theatrical costuming including flat patterning, draping, tailoring, pattern alteration, advanced stitching techniques.
Effective Fall Semester 2024

THR 864   Scene Painting for Theatre
Spring 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 in the Master of Fine Arts in Theatre or approval of department.

NEW Hands on study of traditional and contemporary techniques for painting 2D and 3D theatrical set pieces.
Effective Fall Semester 2024

THR 865   Props Design & Crafts for Theatre
Fall of even 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 in the Master of Fine Arts in Theatre or approval of department.

NEW Artistic and technical principles of prop design and crafts. Play analysis, research and creative interpretation of props design.
Effective Fall Semester 2024

THR 869   Media and Audio Engineering for Theatre
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 in the Master of Fine Arts in Theatre or approval of department.

NEW System design and installation for media and audio technology use in theatre.
Effective Fall Semester 2024

ELI BROAD COLLEGE OF BUSINESS

IBUS 393   Introduction to International Business
Fall of every year. Spring of every year. Summer of every year.1 to 3 credits. Interdepartmental with Accounting, Finance, General Business and Business Law, Hospitality Business, Management, Supply Chain Management. R: Open to students in the Eli Broad College of Business and the Eli Broad Graduate School of Management or in the School of Hospitality Business. R: Open to students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or in the School of Hospitality Business or approval of college.

Introduction to the context of international business delivered on-site in foreign settings. Fundamental concepts and principles of globalization such as multinational corporations, foreign markets and economies, internal and external market transactions, international law, cultural influences, and multinational business strategies.
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: MKT 393
Effective Spring Semester 2024
COLLEGE OF COMMUNICATION ARTS AND SCIENCES

MI 810   Media and Information Seminar
Fall of every year. Spring of every year. Summer 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 Media and Information or in the Media and Information Major.
Overview of scholarship, industry expectations, and job opportunities in the areas of media and information
Effective Fall Semester 2024

MI 841   Understanding Users, Advanced Methods of Understanding Users
Fall of every year. 3(3-0) RB: Direct experience with the creative process in interactive media. R: Open to students in the College of Communication Arts and Sciences or in the Media and Information Major or in the Serious Game Design and Research Certificate or in the Educational Technology Major or in the Educational Technology Graduate Certificate or approval of department.
Methods of user-centered research to support game, media and interaction design.
Iterative cycles of user and product conceptualization.
SA: TC 841
Effective Fall Semester 2024

MI 847   Special Topics in Games
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. R: Open to graduate students in the College of Communication Arts and Information.
NEW
Topics in games studies. Emerging technologies, sociological impacts of games, making games inclusive, and accessibility for games, using industry standard tools for game development.
Effective Fall Semester 2024

MI 851   Understanding and Managing Social Media, Analytical Methods for User Generated Content
Spring of every year. 3(3-0) R: Open to graduate students in the College of Communication Arts and Sciences or approval of department.
Overview of social media applications and services, social media history, social media affordances, effects on individuals, organizations, and society, and best practices for the management and study of social media. History and methodology of emerging research methods, such as big data analysis. Insights into how to apply these findings in multiple domains, such as games or usability of apps.
SA: TC 851
Effective Fall Semester 2024

MI 862   Managing Digital Enterprises, Media and Information Project Management
Spring of every year. 3(3-0) RB: MI 861 R: Open to graduate students in the College of Communication Arts and Sciences or approval of department.
SA: TC 862
Effective Fall Semester 2024
MI 877  Global Media and Communications
Fall of even years.3(3-0) R: Open to graduate students in the College of Communication Arts and Sciences or approval of department.
Comparative and international perspectives on approaches to traditional and new media and their transformations by increased global connectivity. Addresses broadcasting, cable TV, satellite, fixed networks, mobile communications, and the Internet. Political economy of media, economic, institutional and content issues. Interactions and media flows among countries. International governance bodies.
SA: TC 877
DELETE COURSE
Effective Fall Semester 2024

COLLEGE OF EDUCATION

EAD 921  Educational Leadership and Transformation
Fall of every year.3(3-0) R: Open to graduate students in the Educational Leadership Major.
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.
DELETE COURSE
Effective Summer Semester 2024

EAD 921A  Educational Leadership and Transformation I
Fall of every year.2(2-0)
NEW
Creating organizational value through leadership. Leading through conflict. Personal and collective leadership development. Connecting schools with civic life. Convening community groups for democratic deliberation.
Effective Fall Semester 2024

EAD 921B  Educational Leadership and Transformation II
Spring of every year.1(1-0) P: EAD 921A
NEW
Creating organizational value through leadership. Leading through conflict. Personal and collective leadership development. Connecting schools with civic life. Convening community groups for democratic deliberation.
Effective Spring Semester 2025

EAD 922  Analyzing Education Systems
Fall of every year.3(3-0)
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.
DELETE COURSE
Effective Summer Semester 2024

EAD 922A  Analyzing Educational Systems I
Fall of every year.1(1-0)
NEW
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.
Effective Fall Semester 2024
EAD 922B   Analyzing Education Systems II  
Spring of every year.2(2-0) P: EAD 922A  
NEW   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.  
Effective Spring Semester 2025

EAD 924   Data and Decisions  
Fall of every year.3(3-0) R: Open to graduate students in the Educational Leadership Major.  
Effective Fall Semester 2024

EAD 924A   Data and Decisions I  
Fall of every year.3(3-0) R: Open to graduate students in the Educational Leadership Major.  
Effective Fall Semester 2024

EAD 924B   Data and Decisions II  
Spring of every year.1(1-0) P: EAD 924A  
Effective Spring Semester 2025

EAD 980   Engaged Educational Leadership  
Summer of every year.1 to 3 credits. 2(2-0) A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department.  
NEW   Developing skills for engaged leadership. Convening forums to discuss and disseminate ideas for improvement of educational organizations and educational policy. Developing leadership skills that encourage and support agency of stakeholders.  
Request the use of the Pass-No Grade (P-N) system.  
Effective Summer Semester 2024

TE 860   Practice and Inquiry in Science Education  
Spring of every year.3(3-0)  
REINSTATED   Teaching science subjects. Emphasis on learner diversity, learning community, conceptual understanding, subject matter content, and learners' prior knowledge.  
Effective Fall Semester 2024

TE 964   Critical Whiteness Studies in Education  
Fall of even years.3(3-0) RB: TE 983 and/or TE 903 R: Open to doctoral students.  
NEW   Engage with various theoretical and empirical approaches to unveiling and disrupting whiteness and white supremacy in individuals, schools and other institutions, and society across various contexts. Explore different ways of understanding the structures and impacts of white supremacy as a global project and its co-formations with other systems of oppression. Reflect on the material and epistemic impacts of whiteness in individual and collective lives, schooling experiences, scholarly disciplines and subjects, and research approaches. Consider the possibilities of disrupting and divesting from  
Effective Fall Semester 2024