MICHIGAN STATE

March 7, 2024

MEMORANDUM

TO:	University Cor	nmittee on Curriculum
FROM:	Subcommittee	e A
RE:	Report of Sub	committee 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].

University Curriculum and Catalog

Hannah Admin. Building 426 Auditorium Road Suite 430 East Lansing, MI 48824

> 517-355-8420 Fax: 517-355-9601

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.

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MICHIGAN STATE UNIVERSITY University Committee on Curriculum

SUBCOMMITTEE A – AGENDA

Via Zoom February 15, 2024 1:30 p.m.

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:
 - (1) In item 3. a. change the total credits from '67' to '68'.
 - (2) In item 3. a. delete the following course:
 - FOR340LForest Ecology Laboratory1Add the following course:1FOR340LForest Ecology Laboratory2

Effective Fall 2024.

a.

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.
- Approved
- Under the heading **Requirements for the Bachelor of Science Degree in Computational Data Science** make the following change:
 - (1) In item 3. b. change the total credits from '44' to '47' and add the following course:

3

CSE 380 Information Management and the Cloud

Effective Fall 2024.

 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
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Approved

(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):			
	MTH	314	Matrix Algebra with Computational Applications	3
	MTH	317H	Honors Linear Algebra	4

- (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 t	he follow	ing courses (6 credits):	
CSE	404	Intro to Machine Learning	3
CSE	440	Introduction to Artificial Intelligence	3
CSE	482	Big Data Analysis	3
Three of	f the follo	wing courses not taken above (9 to 12 credits):	
CSE	402	Biometrics and Pattern Recognition	3
CSE	404	Intro to Machine Learning	3 3 3 3 3 3 3
CSE	434	Autonomous Vehicles	3
CSE	440	Introduction to Artificial Intelligence	3
CSE	482	Big Data Analysis	3
CSE	803	Computer Vision	3
ADV	401	Neuromarketing and Consumer Decisions	
LIN	401	Introduction to Linguistics	4
LIN	424	Introduction to Phonetics and Phonology	3
LIN	427	Laboratory Phonetics	3
LIN	431	Introduction to Morphology	3
LIN	434	Introduction to Syntax	3
LIN	437	Introduction to Semantics and Pragmatics	3
LIN	463	Introduction to Cognitive Science	3
LIN	471	Sociolinguistics	3
MI	484	Human Robot Interaction (W)	3
MTH	468	Predictive Analysis	3
NEU	301	Introduction to Neuroscience I	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
NEU	302	Introduction to Neuroscience II	
PHL	330	Formal Deductive Reasoning	4
PHL	331	Formal Practical Reasoning	4
PHL	432	Logic and its Metatheory	4
PSY	301	Cognitive Neuroscience	3

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):

/ 0/	10 10 10 1		
CSE	410	Operating Systems	3
CSE	422	Computer Networks	3
CSE	450	Translation of Programming Languages	3
Two of	the follo	owing 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:

e following	g courses (6 credits):	
402	Biometrics and Pattern Recognition	3
425	Introduction to Computer Security	3
the follow	wing courses (9 credits):	
410	Operating Systems	3
422	Computer Networks	3
431	Algorithm Engineering	3
434	Autonomous Vehicles	3
480	Database Systems	3
482	Big Data Analysis	3
239	Digital Footprints: Privacy and Online Behavior	3
416	Introduction to Algebraic Coding	3
	402 425 the follow 410 422 431 434 480 482 239	 425 Introduction to Computer Security the following courses (9 credits): 410 Operating Systems 422 Computer Networks 431 Algorithm Engineering 434 Autonomous Vehicles 480 Database Systems 482 Big Data Analysis 239 Digital Footprints: Privacy and Online Behavior

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:

degree, including the following: Two of the following courses (6 credits):

I wo of t	he follow	ing courses (6 credits):	
CSE	471	Media Processing and Multimedia Computing	3
CSE	472	Computer Graphics	3 3
CSE	476	Mobile Application Development	3
CSE	477	Web Application Architecture and Development	3
Three of	f the follo	wing courses not taken above (8 or 9 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 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 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

STA	384	Experiments in Digital Video	3
THR	205	Media Acting I	2
THR	419	Projection Design for Live Performance	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): 3 CSE 435 Software Engineering 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 3 860 Foundations of Computing CSE 3 MTH 299 Transitions 4 Introduction to Algebraic Coding 3 MTH 416 MTH 417 Topics in Number Theory 3 Combinatorics I MTH 880 3 MTH 882 Combinatorics II 3

Effective Fall 2024.

a.

3. Request to change the requirements in the **Minor** in **Computer Science** in the Department of Computer Science and Engineering.

Approved

Under the heading **Requirements for the Minor in Computer Science** make the following changes:

(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

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.
 - Under the heading Requirements for the Bachelor of Science Degree in Environmental a. 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
In iton		ata tha fal	llowing courses:	

(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 GEO	221 221L	Introduction to Geographic Information Introduction to Geographic Information	3
GLO	2212	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

Approved

(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
In item	3. j. delet	e the follo	wing course:	
IBIO	483	Environ	mental Physiology (W)	4

Add the following course:

IBIO 483	Environmental Physiology	3
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Effective Fall 2024.

(3)

- 3. Request to change the requirements for the **Bachelor of Arts** degree in **Zoology** in the Department of Integrative Biology.

Approved

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
)	In item	3. i. (1) V	/riting , delete the following course:	
	WRA	341	Nature, Environmental, and Travel Writing	3
)	In item	3. i. (2) C	ommunications, delete the following courses:	
	CSUS FW	325 435	Study and Practice of Communication for Sustainability (W) Integrated Communications for the Fisheries and Wildlife	3
			Professional	3
	In item	3. i. (3) C	omputer Systems, delete the following courses:	
	CSE CSE NSC	101 201 204	Computing Concepts and Competencies Fundamentals of Information Technology Introduction to Computational Modeling	3 3 4
	Add the	following	course:	
	CMSE	201	Computational Modeling and Data Analysis I	4

Effective Fall 2024.

a.

(3)

(4)

(5)

4. 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.

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):

0110 01				
(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
(4)	LB	273	Physics I	4
	LB	274	Physics II	4

Approved as changed

(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	e the following course:	
	IBIO	402	Neurobiology	3
	Add the	following	j course:	
	IBIO	300	Neurobiology	3
(b)	Replace	e item (3)	with the following:	
			ing, either (a) or (b) (4 or 8 credits):	
	(a)	One of I IBIO	the following courses (4 credits): 306 Invertebrate Biology	4
		IBIO	328 Comparative Anatomy and Biology	-
	(b)	Two of t	of Vertebrates the following courses (8 credits):	4
	()	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	403	Sensation and Perception (W)	3
	Add the		,	
	Auu ine	IOIIOWING) courses:	
FOR	₩	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
) Delete t	he Cell a	nd Deve	lopmental 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:

(3)

Two of t	he follow	ing courses (8 credits):	
FW	471	Ichthyology	4
IBIO	306	Invertebrate Biology	4

FW

GEO

And GEO

IBIO

MMG

requirement.

424

221

221L

357

425

Marine Ecology and Management Wildlife Population Analysis and Management

Laboratory

Global Change Biology (W)

Microbial Ecology

Both GEO 221 and 221L must be completed to satisfy this

Introduction to Geographic Information

Introduction to Geographic Information

3

3

1

3

3

(5)

(6)

(7)

IBIO328Comparative Anatomy and Biology of Vertebrates4IBIO360Biology of Birds4IBIO365Biology of Mammals4IBIO384Biology of Amphibians and Reptiles (W)4	
(b) In item (3) delete the following courses:	
IBIO316General Parasitology3IBIO483Environmental Physiology (W)4	
Add the following course:	
IBIO 483 Environmental Physiology 3	
(c) In item (4) delete the following courses:	
GEO324Remote Sensing of the Environment4GEO325Geographic Information Systems3	
Delete the Genetics concentration.	
Students currently enrolled in the major have until US28 to complete the requirement this concentration and have it noted on the student's academic record.	nts for
Delete the General Zoology concentration.	
Students currently enrolled in the major have until US28 to complete the requirement this concentration and have it noted on the student's academic record.	nts for
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:	
IBIO303Oceanography4IBIO483Environmental Physiology (W)4	
Add the following courses:	
GLG303Oceanography3IBIO483Environmental Physiology3	
(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	
(b) BMB 401 Comprehensive Biochemistry 4	
(b) BMB 401 Comprehensive Biochemistry 4 CEM 383 Introductory Physical Chemistry I 3	
FW 416 Marine Ecology and Management 3	

(1)

(2)

(3)

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

ENT	469	Biomonitoring of Streams and Rivers	3	
IBIO	440	Field Ecology and Evolution	4	
PLB	424	Algal Biology	4	
		d and Laboratory Techniques for	r Aquatic Studies	3
Add th	e followi	ng course:		
PLB	424	Algal Biology	3	

Algal Biology

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

All of the IBIO	e followin 313	ng courses (25 credits): Animal Behavior	3		
-			-		
IBIO	341	Fundamental Genetics	4		
IBIO	355	Ecology	3		
IBIO	355L	Ecology Laboratory (W)	1		
IBIO	369	Zoo Animal Biology and Conservation	3		
IBIO	369	Introduction to Zoo and Aquarium Science	3		
IBIO	445	Evolution (W)	3		
IBIO	489	Seminar in Zoo and Aquarium Science	1		
IBIO	498	Internship in Zoo and Aquarium Science	4		
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		
Three additional courses of at least 3 credits selected from a list of approved					
courses that is available from the Department of Integrative Biology.					
Integrative Dialogy sources that are not listed shows must be enproved in					

Integrative Biology courses that are not listed above must be approved in (4) 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. <u>Fall of odd years.</u> 3(3-0) RB: Students with an environmental science
Approved	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. <u>Fall of every year.1(0-2) 2(2-0)</u> <u>RB: Recommended for graduate students in</u>
Approved	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 Approved as changed	 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. 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 2024
	COLLEGE OF ENGINEERING
CE 840 Approved as changed NEW	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 Approved NEW	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

PART II - NEW COURSES AND CHANGES – continued - 12 February 15, 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 <u>P:</u>			
Approved	(MTH 314 or MTH 317H 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. <u>Spring of every year.</u> 3(3-0) -P: CSE 325 <u>P: CSE 325 and</u>			
Approved	<u>CSE 380</u> 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 P: CSE 380 R: Open to juniors or			
Approved	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 P: CSE 380 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.			
Approved	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 systemsFundamentals 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 <u>P: CSE 380</u> R: Open to juniors or seniors in the College of Engineering or in the Computer Science Minor or in the Lyman Briggs Computer			
Approved	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) 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) 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 Approved NEW	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. Topics selected to supplement and enrich existing courses and lead to the development of new courses. Effective Fall Semester 2024
CSE 494 Approved as changed NEW	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, Computational Mathematics, Science, & Engineering, Computational Mathematics, Science, & Engineering, 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. 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 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
	COLLEGE OF NATURAL SCIENCE
ISE 800	Problems in Science or Mathematics for Teachers

Approved

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

MICHIGAN STATE UNIVERSITY

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], Munez 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].

University Curriculum and Catalog

Hannah Admin. Building 426 Auditorium Road Suite 430 East Lansing, MI 48824

> 517-355-8420 Fax: 517-355-9601

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.

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SUBCOMMITTEE B - AGENDA

Via Zoom February 22, 2024 1:30 p.m.

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 th	ne followir	ng courses:			
CSS CSUS	210 493	Fundamentals in Soil Science Professional Internship in Community Sustainability	3 1		
Delete item 3 and renumber items 4 and 5 Respectively					

- (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
	<u>Major or in the Social Relations and Policy major or approval of college.</u> 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

MICHIGAN STATE UNIVERSITY

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.

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University Curriculum and Catalog

Hannah Admin. Building 426 Auditorium Road Suite 430 East Lansing, MI 48824

> 517-355-8420 Fax: 517-355-9601

SUBCOMMITTEE C - AGENDA

Via Zoom

February 8, 2024

1:30 p.m.

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 th	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 follo	wing 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 follo	wing 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		
	ΤE	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 proficiency if English is not their first language.

Requirements for the Graduate Certificate in Health and Risk Communication

CREDITS

Students must complete 9 credits from the following courses:

			5	
1.	Both of	f the follo	owing courses (6 credits):	
	CAS	825	Mass Communication and Public Health	3
	CAS	826	Health Communication for Diverse Populations	3
2.	One of the following courses (3 credits):			
	COM	828	Cross-Cultural Communication	3
	COM	860	Persuasion	3
	CAS	892	Special Topics	3
	Studen	ts select	ing CAS 892 Special Topics must enroll in the Risk Commι	unication

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

- 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:

(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
	. , .	 b) under the Intercultural Communication concentration, in iter ng course: 	m 2.
CSUS	250	Global Issues in Agriculture and Natural Resources	3
In itom 3		a) under the Mediated Communication concentration in item 2	dolot

- (5) In item 3. a. (4) (b) under the **Mediated Communication** concentration, in item 2. delete the following course:
 - WRA425Advanced Multimedia Writing3

Effective Summer 2024.

(4)

- 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 foll	owing co	re course (1 credit):	
	MI	810	Media and Information Seminar	1
2.	At least	one of th	ne 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 th	ne 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

MI	846	Game and Project Design Studio II	3
MI	847	Special Topics in Games	3
MI	850	Media and Information Policy	3
MI	851	Analytical Research Methods for User	
		Generated Content	3
MI	861	Media and Information Technologies in Organizations	3
MI	862	Media and Information Project Management	3
MI	875	Information and Communication Technology and	
		Development	3
MI	891	Special Topics in Media and Information (any section)	3
A 1 1***			

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 EAD	921 922	Educational Leadership and Transformation Analyzing Education Systems	3 3	
Add the	following	courses:		
EAD EAD EAD EAD	921A 921B 922A 922B	Educational Leadership and Transformation I Educational Leadership and Transformation II Analyzing Education Systems I Analyzing Education Systems II	2 1 2 1	
In item 2., delete the following course:				
EAD	924	Data and Decisions	3	
Add the	following	courses:		
EAD EAD	924A 924B	Data and Decisions I Data and Decisions II	3 1	
In item	3., chang	e the credits of 'EAD 980' from '3' to '2'.		

Effective Fall 2024.

(3)

(2)

PART II - NEW COURSES AND CHANGES

COLLEGE OF ARTS AND LETTERS

GD 191 NEW	Special Topics in Graphic Design 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. Researching and designing special topics in Graphic Design. Topics vary. Effective Fall Semester 2024
GNL 832	Project Management Principles for Nonprofits
NEW	On Demand.2(2-0) 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. Effective Fall Semester 2024
GNL 855	Monitoring, Evaluation, and Learning for Nonprofits
NEW	On Demand.2(2-0) Concepts, theories, and tools for Monitoring, Evaluation, and Learning. Strategies and techniques for designing and implementing monitoring and evaluation plans. Fundamentals of project learning tools and ethical guidelines for data collection and reporting. Effective Fall Semester 2024
ITL 101	Elementary Italian I 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) RB: No previous experience in Italian or approval of department. R: Not open to seniors. Practice in using and understanding Italian to develop listening, speaking, reading, and writing skills. Pronunciation, grammar, vocabulary, and cultural topics. Effective Fall Semester 2024
ITL 102	Elementary Italian II 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) P: ITL 101 Further practice in using and understanding Italian to develop listening, speaking, reading, and writing skills. Pronunciation, grammar, vocabulary, and cultural topics. Effective Fall Semester 2024
ITL 201	Second-Year Italian I Fall of every year. Fall of every year. Spring of every year. Summer of every year. 4(4-0) 4(3-2) P: ITL 102 Intermediate-level review and development of aural comprehension, speaking, reading, and writing skills. Topics in Italian culture. Effective Fall Semester 2024
ITL 202	Second-Year Italian II Spring of every year. Fall of every year. Spring of every year. Summer of every year. 4(4-0) 4(3- 2) P: ITL 201 Further review and development of aural comprehension, speaking, reading, and writing skills. Topics in Italian culture. Effective Fall Semester 2024
ITL 330	Italian Culture and Civilization Fall of every year. Fall of every year. Spring of every year. Summer of every year. 3(3-0)A student may earn a maximum of 6 credits in all enrollments for this course. P: 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. Effective Fall Semester 2024

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 P: (ITL 202) 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 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 6 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 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

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
NEW	Theatre or approval of department. 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
NEW	Theatre or approval of department. 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. <u>R</u> : 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 Department of Media 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. History and current status of e-commerce, e-commerce strategies and approaches, and new directions in e-commerce. Challenges of developing and marketing an online commerce site. Management of projects in digital enterprises. Current tools, project management best practices and experience in managing a project. 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 <u>DELETE COURSE</u>

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. <u>DELETE COURSE</u> Effective Summer Semester 2024
EAD 921A	Educational Leadership and Transformation I
NEW	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. 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. <u>DELETE COURSE</u> Effective Summer Semester 2024
EAD 922A NEW	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. 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. 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. 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. <u>DELETE COURSE</u> Effective Summer Semester 2024	
EAD 924A	Data and Decisions I	
NEW	 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. Effective Fall Semester 2024 	
EAD 924B	Data and Decisions II	
NEW	Spring of every year.1(1-0) P: EAD 924A 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. 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. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department. 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	
REINSTATEMEN	Spring of every year.3(3-0) T 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	
NEW	Fall of even years.3(3-0) RB: TE 963 and/or TE 903 R: Open to doctoral students. 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	