# MICHIGAN STATE UNIVERSITY

### Report of

**THE UNIVERSITY COMMITTEE ON CURRICULUM**

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

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

TO: Faculty Senate

MICHIGAN STATE UNIVERSITY

University Committee on Curriculum

March 21, 2023

This report is prepared and distributed for the following purposes:

1. To report new academic programs, changes in academic programs, discontinuations of academic programs, new courses, permanent changes in courses, and deletions of courses.
2. To notify the initiating colleges, schools, and departments of approval by the University Committee on Curriculum of their requests for new academic programs, changes in academic programs, discontinuations of academic programs, new courses, permanent changes in courses, and deletions of courses. Any items not approved by the Faculty Senate will be reported to the appropriate college and department or school.
3. To provide information to members of the faculty in each department about academic programs and courses in all colleges, departments, and schools of the University.

Reports of the University Committee on Curriculum to the Faculty Senate are organized as follows: PART I - NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES:

Organized by colleges in alphabetical order. For a given college, academic units are organized in alphabetical order. For a given academic unit, degrees, majors, and specializations are organized in alphabetical order.

PART II - NEW COURSES:1

Organized by academic units in alphabetical order; All-University courses appear last. For a given academic unit, courses are organized according to the names associated with course subject codes, in alphabetical order. Courses with the same subject code are in numerical order.

PART III - COURSE CHANGES:1

Organized by academic units in alphabetical order; All-University courses appear last. For a given academic unit, courses are organized according to the names associated with course subject codes, in alphabetical order. Courses with the same subject code are in numerical order.

Not all of the above categories, and not all of the colleges and academic units, will necessarily appear in any given Senate Report.

1One or more of the abbreviations that follow may be included in a course entry:

|  |  |  |
| --- | --- | --- |
| P: | = | Prerequisite monitored in SIS |
| C: | = | Corequisite |
| R: | = | Restriction |
| RB: | = | Recommended background |
| SA: | = | Semester Alias |

MICHIGAN STATE UNIVERSITY

March 21, 2023

TO: Faculty Senate

FROM: University Committee on Curriculum

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

# PART I - NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

## COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

1. Change the requirements for the **Doctor of Philosophy** degree in **Agricultural, Food and Resource Economics** in the Department of Agricultural, Food, and Resource Economics. The University Committee on Graduate Studies (UCGS) approved this request at its February 20, 2023 meeting.
	1. Under the heading **Requirements for the Agricultural, Food and Resource Economics Degree**

replace the entire entry with the following:

A total of 61 credits is required for the degree. The student must:

* + 1. Complete all of the following core courses (16 credits):

CREDITS

AFRE 900 Applied Microeconomics 3

|  |  |  |  |
| --- | --- | --- | --- |
| EC | 812A | Microeconomics I and its MathematicalFoundations | 4 |
| EC | 812B | Microeconomics II | 3 |
| EC | 820A | Econometrics IA | 3 |
| EC | 820B | Econometrics IB | 3 |

EC 812A, EC 812B, EC 820A, and EC 820B must be taken during the student’s first academic year of doctoral study, and AFRE 900 must be taken in the fall semester of their second year. To be qualified to proceed in the AFRE Ph.D. program, grades of 3.5 or better are required in at least two of the five core courses (EC 812A, EC 812B, EC 820A, EC 820B, and AFRE 900), with a 3.0 minimum grade required in each course. Retaking a course to meet these requirements is not allowed.

* + 1. Complete 9 credits in one of three major fields in Agricultural, Food and Resource Economics: development economics, environmental and resource economics, or food and agricultural economics. A 3.0 minimum grade is required in each course used to establish the student’s major field and the student’s cumulative grade-point average for their major field courses must be greater than 3.0 (i.e., a grade of 3.5 or better is required in at least one

of the student's three major field courses).

* + 1. Complete an additional 12 credits of advanced course work at the 800- or 900-level, at least 6 credits must be AFRE courses.
		2. Complete a minimum of 24 credits of AFRE 999 Doctoral Dissertation Research.
		3. Pass the comprehensive examination no later than the end of the third year.
		4. Present and obtain formal approval for the proposed dissertation research by the end of the fourth year.
		5. Pass a final oral examination at which the student presents their dissertation results.
		6. Attend at least 6 AFRE (or joint AFRE-EC) seminars in any single academic year before the end of the fourth year.
		7. Have a grade point average of at least 3.0 in the student’s approved course program before the student can be certified for graduation. Collateral courses are not included in this calculation.

Effective Fall 2023.

1. Delete the curriculum and degree requirements for the **Doctor of Philosophy** degree in **Animal Science- Environmental Toxicology** in the Department of Animal Science. The University Committee on Graduate Studies (UCGS) provided consultative commentary to the Provost after considering this request at its January 23, 2023 meeting. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Graduate Studies.

No new students are to be admitted to the program effective Fall 2022. No students are to be readmitted to the program effective Fall 2022. Effective Fall 2030, coding for the program will be discontinued and the program will no longer be available in the Department of Animal Science. Students who have not met the requirements for the Doctor of Philosophy degree in Animal Science-Environmental Toxicology through the Department of Animal Science prior to Spring 2030 will have to change their major.

1. Delete the curriculum and degree requirements for the **Doctor of Philosophy** degree in **Fisheries and Wildlife-Environmental Toxicology** in the Department of Fisheries and Wildlife. The University Committee on Graduate Studies (UCGS) provided consultative commentary to the Provost after considering this request at its January 23, 2023 meeting. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Graduate Studies.

No new students are to be admitted to the program effective Fall 2022. No students are to be readmitted to the program effective Fall 2022. Effective Fall 2030, coding for the program will be discontinued and the program will no longer be available in the Department of Fisheries and Wildlife. Students who have not met the requirements for the Doctor of Philosophy degree in Fisheries and Wildlife-Environmental Toxicology through the Department of Fisheries and Wildlife prior to Spring 2030 will have to change their major.

1. Delete the curriculum and degree requirements for the **Doctor of Philosophy** degree in **Food Science- Environmental Toxicology** in the Department of Food Science and Human Nutrition. The University Committee on Graduate Studies (UCGS) provided consultative commentary to the Provost after considering this request at its January 23, 2023 meeting. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Graduate Studies.

No new students are to be admitted to the program effective Fall 2022. No students are to be readmitted to the program effective Fall 2022. Effective Fall 2030, coding for the program will be discontinued and the program will no longer be available in the Department of Food Science and Human Nutrition. Students who have not met the requirements for the Doctor of Philosophy degree in Food Science-Environmental Toxicology through the Department of Food Science and Human Nutrition prior to Spring 2030 will have to change their major.

1. Delete the curriculum and degree requirements for the **Doctor of Philosophy** degree in **Human Nutrition- Environmental Toxicology** in the Department of Food Science and Human Nutrition. The University Committee on Graduate Studies (UCGS) provided consultative commentary to the Provost after considering this request at its January 23, 2023 meeting. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Graduate Studies.

No new students are to be admitted to the program effective Fall 2022. No students are to be readmitted to the program effective Fall 2022. Effective Fall 2030, coding for the program will be discontinued and the program will no longer be available in the Department of Food Science and Human Nutrition. Students who have not met the requirements for the Doctor of Philosophy degree in Human Nutrition-Environmental Toxicology through the Department of Food Science and Human Nutrition prior to Spring 2030 will have to change their major.

1. Delete the curriculum and degree requirements for the **Doctor of Philosophy** degree in **Forestry- Environmental Toxicology** in the Department of Forestry. The University Committee on Graduate Studies (UCGS) provided consultative commentary to the Provost after considering this request at its January 23, 2023 meeting. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Graduate Studies.

No new students are to be admitted to the program effective Fall 2022. No students are to be readmitted to the program effective Fall 2022. Effective Fall 2030, coding for the program will be discontinued and the program will no longer be available in the Department of Forestry. Students who have not met the requirements for the Doctor of Philosophy degree in Forestry-Environmental Toxicology through the Department of Forestry prior to Spring 2030 will have to change their major.

1. Change the requirements for the **Bachelor of Science** degree in **Construction Management** in the School of Planning, Design and Construction to the following.
	1. Under the heading **Admission as a Junior** make the following change:

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

|  |  |  |  |
| --- | --- | --- | --- |
| STT | 315 | Introduction to Probability and Statistics for Business | 3 |
| STT | 421 | Statistics I | 3 |

* 1. Under the heading **Requirements for the Bachelor of Science Degree in Construction Management** make the following changes:
1. In item 1., replace paragraph two with the following:

The University's Tier II writing requirement for the Construction Management major is met by completing Construction Management 385. That course is referenced in item 3. below.

1. In item 1., delete paragraphs four and five:

The completion of Physics 251 satisfies one credit towards the laboratory requirement. With advisor approval, the second required laboratory may be satisfied if the student completes a chemistry laboratory course or a physics laboratory course beyond Physics 251.

Physics 231 and 251 may be counted toward both the alternative track and the requirements for the major referenced in item 3. below.

1. In item 2., delete paragraph two:

The completion of Mathematics 124 satisfies the College’s mathematics requirement. The completion of Mathematics 132, MTH 152H or Lyman Briggs 118 will also satisfy this requirement.

1. Replace item 3. with the following:
	1. All of the following courses (62 credits):

|  |  |  |  |
| --- | --- | --- | --- |
| ACC | 230 | Survey of Accounting Concepts | 3 |
| CMP | 101 | Principles of Construction Management | 2 |
| CMP | 124 | Residential Construction Materials and Methods | 3 |
| CMP | 210 | Commercial Construction Methods | 3 |
| CMP | 222 | Statics and Strengths of Materials | 3 |
| CMP | 230 | Utility Systems | 3 |
| CMP | 245 | Principles of Green Building | 3 |
| CMP | 305 | Site Construction and Measurement | 3 |
| CMP | 311 | Construction Project Scheduling | 3 |
| CMP | 315 | Construction Quantity Surveying | 3 |
| CMP | 322 | Structural Systems | 3 |
| CMP | 325 | Real Estate Principles and Construction Finance | 3 |
| CMP | 328 | Building Information Modeling for Construction | 3 |
| CMP | 385 | Construction Documents and Contracts (W) | 3 |
| CMP | 401 | Construction Safety Management | 3 |
| CMP | 415 | Cost Estimating and Analysis | 3 |
| CMP | 423 | Construction Project Management | 3 |
| MGT | 325 | Management Skills and Processes | 3 |
| MTH | 124 | Survey of Calculus I | 3 |
| PHY | 231 | Introductory Physics I | 3 |
| PHY | 232 | Introductory Physics II | 3 |

Students must have a minimum grade-point of 2.0 in each of the following courses: CMP 401, 415, and 423.

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

CMP 445 Green and Energy Efficient Building Construction 3

CMP 453 Land Development 3

CMP 475 Practical Experiences in Construction Management 3

|  |  |  |  |
| --- | --- | --- | --- |
| CMP | 491 | Special Topics in Construction Management | 3 or 4 |
| CMP | 493 | Professional Internship in Construction Management | 3 |
| PDC | 403 | Introduction to Domicology: Sustainable |  |
|  |  | Built Environment | 3 |
| c. One of the following courses with a minimum grade-point of 2.0 (3 credits): |
| CMP | 435 | Residential Building and Development Projects (W) | 3 |
| CMP | 436 | Commercial Building Projects (W) | 3 |
| CMP | 492 | Capstone Project Competitions | 3 |
| d. One of the following courses (3 or 4 credits): |
| COM | 100 | Human Communication | 3 |
| COM | 225 | An Introduction to Interpersonal Communication | 3 |
| COM | 240 | Introduction to Organizational Communication | 4 |
| e. One of the following courses (3 or 4 credits): |
| STT | 200 | Statistical Methods | 3 |
| STT | 201 | Statistical Methods | 4 |
| f. One of the following courses (3 credits): |
| EC | 201 | Introduction to Microeconomics | 3 |
| EC | 202 | Introduction to Macroeconomics | 3 |
| g. One of the following courses (3 credits): |
|  | FI | 320 | Introduction to Finance | 3 |
|  | GBL | 323 | Introduction to Business | 3 |
|  | MKT | 327 | Introduction to Marketing | 3 |
|  | SCM | 304 | Survey of Supply Chain Management | 3 |
| Effective Fall 2023. |  |  |  |  |

1. Delete the curriculum and degree requirements for the **Doctor of Philosophy** degree in **Crop and Soil Sciences-Environmental Toxicology** in the Department of Plant, Soil and Microbial Sciences. The University Committee on Graduate Studies (UCGS) provided consultative commentary to the Provost after considering this request at its January 23, 2023 meeting. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Graduate Studies.

No new students are to be admitted to the program effective Fall 2022. No students are to be readmitted to the program effective Fall 2022. Effective Fall 2030, coding for the program will be discontinued and the program will no longer be available in the Department of Plant, Soil and Microbial Sciences. Students who have not met the requirements for the Doctor of Philosophy degree in Crop and Soil Sciences- Environmental Toxicology through the Department of Plant, Soil and Microbial Sciences prior to Spring 2030 will have to change their major.

## COLLEGE OF ARTS AND LETTERS

1. Change the requirements for the **Bachelor of Arts** degree in **Apparel and Textiles** in the Department of Art, Art History, and Design.
	1. Under the heading **Requirements for the Bachelor of Arts Degree in Apparel and Textiles**

make the following changes:

* + 1. In item 3. b. change the total credits from ‘18 to 23’ to ‘17’.
		2. In item 3. b. delete the following course:

ATD 493 Internship in Apparel and Textiles 1 to 6

* + 1. In item 3. c. change the total credits from ‘8 to 12’ to ’1 to 3’.
		2. In item 3. c. add the following course:

ATD 493 Internship in Apparel and Textiles 1 to 6

Effective Fall 2023.

1. Change the requirements for the **Bachelor of Fine Arts** degree in **Apparel and Textile Design** in the Department of Art, Art History, and Design.
	1. Under the heading **Requirements for the Bachelor of Fine Arts Degree in Apparel and Textile Design** make the following changes:
		1. In item 3. d. change the total credits from ‘18 to 23’ to ‘17’.
		2. In item 3. d. delete the following course:

ATD 493 Internship in Apparel and Textiles 1 to 6

* + 1. In item 3. e. change the total credits from ‘15’ to ’15 to 24’.
		2. In item 3. e. add the following course:

ATD 493 Internship in Apparel and Textiles 1 to 6

Effective Fall 2023.

1. Change the requirements for the **Bachelor of Arts** degree in **Art History and Visual Culture** in the Department of Art, Art History, and Design.
	1. Under the heading **Requirements for the Bachelor of Arts Degree in Art History and Visual Culture** make the following changes:
		1. In item 3. (a) (3), delete the following courses:

|  |  |  |  |
| --- | --- | --- | --- |
| HA | 210 | Medieval Art | 3 |
| HA | 230 | Renaissance and Baroque Art | 3 |

Add the following courses:

|  |  |  |  |
| --- | --- | --- | --- |
| HA | 220 | Renaissance Art | 3 |
| HA | 231 | Baroque and Rococo Art | 3 |

* + 1. In item 3. a. (5) delete the following courses:

|  |  |  |  |
| --- | --- | --- | --- |
| HA | 430 | Selected Topics in Baroque Art | 4 |
| HA | 453 | American Art, 1875-1940 | 4 |

Add the following courses:

|  |  |  |  |
| --- | --- | --- | --- |
| HA | 431 | Special Topics in Early Modern Art | 4 |
| HA | 454 | Selected Topics in Arts of the Americas | 4 |

Effective Fall 2023.

1. Change the requirements for the **Minor** in **Comic Art and Graphic Novels** in the Department of Art, Art History, and Design.
	1. Under the heading **Requirements for the Minor in Comics and Visual Narrative**, make the following changes in item 2.:
		1. Delete the following courses:

|  |  |  |  |
| --- | --- | --- | --- |
| JRN | 313 | Political Cartoons | 3 |
| STA | 160 | Digital Graphic Design: Tools and Methods | 3 |

Add the following courses:

|  |  |  |  |
| --- | --- | --- | --- |
| GD | 160 | Digital Graphic Design: Tools and Methods | 3 |
| STA | 202 | Sequencing Events: Drawing Comics Throughout History | 3 |
| STA | 203 | Comics Memoir | 3 |

Effective Fall 2023.

1. Change the requirements for the **Bachelor of Arts** degree in **Studio Art** in the Department of Art, Art History, and Design.
	1. Under the heading **Requirements for the Bachelor of Arts Degree in Studio Art** make the following change:
		1. In item 3. a. (3), in *Electronic Art and Intermedia*, add Studio Art 488.

Effective Fall 2023.

1. Change the requirements for the **Bachelor of Fine Arts** degree in **Studio Art** in the Department of Art, Art History, and Design.
	1. Under the heading **Requirements for the Bachelor of Fine Arts Degree in Studio Art** make the following changes:
		1. In item 3. a. (3) *Ceramics*, add Studio Art 491C.
		2. In item 3. a. (3) *Electronic Art and Intermedia*, add Studio Art 480.
		3. In item 3. a. (3) *Studio Art Senior Project courses and Internships*, under Electronic Art and Intermedia, add Studio Art 488.

Effective Fall 2023.

## COLLEGE OF COMMUNICATION ARTS AND SCIENCES

1. Change the requirements for the **Bachelor of Arts** degree in **Advertising Creative** in the Department of Advertising and Public Relations

*The concentrations in the Bachelor of Arts degree in Advertising Creative will be noted on the student’s academic record when the requirements for the degree have been completed.*

* 1. Under the heading **Requirements for the Bachelor of Arts Degree in Advertising Creative**

make the following change:

* + 1. In item 3. d. change the course title of ADV 225 to ‘Basic Skills for Advertising Careers’.

Effective Fall 2023.

1. Change the requirements for the **Minor in Public Relations** in the Department of Advertising and Public Relations.
	1. Under the heading ***MINOR IN PUBLIC RELATIONS***, *delete* the first sentence and replace with the following:

The Minor in Public Relations, which is administered by the Department of Advertising and Public Relations within the College of Communication Arts and Sciences, is available as an elective to students who are enrolled in any bachelor’s degree program at Michigan State University.

Effective Fall 2023.

1. Change the requirements in the **Minor** in **Broadcast Journalism** in the School of Journalism.
	1. Under the heading **Requirements for the Minor in Broadcast Journalism** make the following changes:
		1. Change the total credits required from ‘15’ to ‘16’.
		2. Change the credits of JRN 406A and JRN 406B from ‘3’ to ‘4’.

Effective Fall 2023.

1. Change the requirements for the **Bachelor of Arts** degree in **Journalism** in the School of Journalism.

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

* 1. Under the heading **Requirements for the Bachelor of Arts Degree in Journalism** make the following changes:
		1. Under the heading **Broadcast Journalism** replace the entire entry with the following:

|  |  |  |  |
| --- | --- | --- | --- |
| JRN | 206 | Video Storytelling with Phones | 3 |
| JRN | 306 | Broadcast News I: Intro to Reporting | 3 |
| JRN | 406 | Broadcast News II: Intermediate Reporting | 3 |
| One of the following courses (3 or 4 credits): |
| JRN | 303 | On-Air Announcing, Interviewing and Hosting | 3 |
| JRN | 406A | Broadcast News III: Advanced Reporting | 4 |
| JRN | 406B | Broadcast News Producing | 4 |

* + 1. Under the heading **International Reporting** delete the following course option: Study Abroad in Journalism 3

Effective Fall 2023.

1. Change the requirements for the **Graduate Certificate** in **Journalism** in the School of Journalism. The University Committee on Graduate Studies (UCGS) approved this request at its February 20, 2023 meeting.
	1. Under the heading **Admission** replace the entire entry with the following:

To be considered for admission into the Graduate Certificate in Journalism, applicants must have completed a bachelor's degree and submit a short academic essay. For additional information, refer to the *Admission* section in the *Graduate Education* section of this catalog.

* 1. Under the heading **Requirements for the Graduate Certificate in Journalism** replace the entire entry with the following:

Students must complete a minimum of 9 credits, through selection of a minimum of three JRN courses at the 800-level, in consultation with the academic advisor.

Effective Fall 2023.

1. Change the requirements for the **Minor in Documentary Production** in the Department of Media and Information.
	1. Under the heading **Minor in Documentary Production** make the following changes:
		1. In item 2., under **Broadcast News**, delete the following course:

JRN 406 Advanced TV News: Storytelling and Producing 3

Add the following course:

JRN 406B Broadcast News Producing 4

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

FLM 336 Aesthetics of Film Editing 3

* + 1. In item 2., under **Multimedia** add the following course:

CSUS 265 Exploring Environmental and Sustainability Issues

and Policy Using Film 3

* + 1. In item 2., under **Photography** make the following changes:
			1. Change the requirement to ‘One of the following, either (1), (2), or (3):’
			2. Add the following item (3):

|  |  |  |  |
| --- | --- | --- | --- |
| JRN | 488 | Visual Storytelling in Kenya | 4 |
| JRN | 310 | Photojournalism | 3 |
| or |  |  |  |
| JRN | 410 | Advanced Photojournalism Documentary | 3 |

Effective Fall 2023.

## COLLEGE OF EDUCATION

1. Change the requirements for the **Bachelor of Arts** degree in **Special Education-Learning Disabilities** in the Department of Counseling, Educational Psychology and Special Education. The Teacher Education Council (TEC) approved this request at its February 13, 2023 meeting.
	1. Replace the **Admission** statement with the following:

To earn a Bachelor of Arts degree in special education-learning disabilities, students must declare their intent to become a special education-learning disabilities major to the Academic Advising Office in the College of Education.

* 1. Under the heading **Requirements for the Bachelor of Arts Degree in Special Education** make the following changes:
		1. In item 2. a. change the total credits from ‘19’ to ‘18’ and delete the following course TE 372 Justice and Equity Seminar II 1

|  |  |
| --- | --- |
| (2) Replace item 2. b. with the following: |  |
| **Elementary Education Courses** (15 credits):(1) The following course (3 credits):TE 202 Engaging Elementary Learners with Mathematics | 3 |
| (2) One of the following literacy courses (3 credits):TE 301A Children's Literacy Development PK-3 (W) | 3 |
| TE 301B Children's Literacy Development 3-6 (W) | 3 |
| (3) The following mathematics course (3 credits):MTH 201 Elementary Mathematics for Teachers I | 3 |
| (3) In item 2. c. make the following changes: |  |
| (a) Change the total credits from ‘29’ to ’21 or 26’. |  |
| (b) Change the total credits for the **Prekindergarten through Grade Three**concentration from ‘29’ to ‘26’ and delete the following courses: |  |
| HDFS 424 Student Teaching in an Early Childhood Program | 6 |
| TE 405B Teaching Literacy to Diverse Learners II – PK-3 | 3 |
| TE 406B Teaching Mathematics to Diverse Learners II – PK-3 | 3 |

Add the following courses:

|  |  |  |  |
| --- | --- | --- | --- |
| TE | 331 | Social Studies Curriculum for Young Learners (PK-3) | 3 |
| TE | 340 | Teaching and Learning Elementary Science (PK-6) | 3 |
| TE | 343 | Teaching and Learning Elementary Social Studies |  |
|  | (PK-6) | 3 |
| (c) | Replace the **Grade Three through Grade Six** concentration requirements with the following:All of the following courses (21 credits):(1) One of the following United States history courses (3 credits):HST 301 Indigenous-European Encountersin North America | 3 |
|  | HST 302 Revolutionary America(2) One of the following arts integration courses (3 credits): TE 430 Introduction to Arts in the Classroom | 33 |
|  | TE 431 Learning through Drama | 3 |
|  | TE 432 Learning through Movement(3) All of the following courses (12 credits): | 3 |
| ISE | 301 | Science for Elementary Schools | 3 |
| TE | 332 | Science Curriculum for UpperElementary Learners (3-6) | 3 |
| TE | 333 | Social Studies for Young Learners (PK-6) | 3 |

|  |  |  |  |
| --- | --- | --- | --- |
| TETE | 405406 | Teaching Language and Literacy to Diverse Learners (3-6)Teaching Mathematics to Diverse | 3 |
|  |  | Learners (3-6) | 3 |

1. Replace item 2. d. with the following:

**Learning Disabilities Area of Emphasis** (42 credits):

* 1. All of the following courses:

|  |  |  |  |
| --- | --- | --- | --- |
| CEP | 301 | Literacy Instruction for Students with Disabilities | 3 |
| CEP | 302 | Technology and Content Area Support for Students |  |
|  |  | with Disabilities | 2 |
| CEP | 339 | Classroom Management for Special Education | 3 |
| CEP | 345 | Language and Literacy Development and Disorders | 3 |
| CEP | 349 | Behavior Management in Special Education | 3 |
| CEP | 351 | Special Education Law and Policies | 3 |
| CEP | 400 | Professional Skills in Special Education | 1 |
| CEP | 401 | Transition and Collaboration in Special Education | 3 |
| CEP | 402 | Mathematics Interventions for Students with |  |
|  |  | Disabilities | 3 |
| CEP | 403 | Assessment for Students with Disabilities | 3 |
| CEP | 404 | Literacy Interventions for Students with Disabilities | 3 |
| CEP | 405 | Internship in Teaching Special Education | 6 |
| One of the following courses (6 credits): |
| TE | 481 | PK-3 Internship I | 6 |
| TE | 482 | PK-3 Internship II | 6 |
| TE | 484 | 3-6 Internship I | 6 |
| TE | 485 | 3-6 Internship II | 6 |

1. Delete item 2. e.

Effective Fall 2023.

1. Change the requirements for the **Master of Arts** degree in **Student Affairs Administration** in the Department of Educational Administration. The University Committee on Graduate Studies (UCGS) approved this request at its February 20, 2023 meeting.
	1. Under the heading **Admission**, replace the entire entry with the following:

Applicants must submit a written personal statement of their experiences and interests related to guiding their pursuit of a master's degree in student affairs administration. The three required letters of recommendation must be from persons who are acquainted with the applicant's (1) academic and employment performance and (2) potential for graduate work and professional employment in higher education. Applicants must be available for an interview.

* 1. Under the heading **Requirements for the Master of Arts Degree in Student Affairs Administration** make the following changes:
		1. Change the total credits from ‘40’ to ‘36’.

In item 1., change the total credits from ‘25’ to ‘24’ and change the credits of EAD 893 from ‘4’ to ‘3’.

* + 1. Replace items 2. and 3. with the following:
1. Four additional courses totaling 12 credits that contribute to the student’s professional goals such as in academic advisement, training and development, communications, or counseling, and are approved by the student’s academic advisor. At least two of these courses should be from EAD course offerings taught by HALE faculty.
2. Completion of a final oral evaluation.

Effective Fall 2023.

1. Change the name of the **Bachelor of Arts** degree in **Education** to **Elementary Education** in the Department of Teacher Education. The Teacher Education Council approved this request at its February 13, 2023 meeting.

Students admitted to the major prior to Fall 2023 will be awarded a Bachelor of Arts Degree in Education.

Students admitted to the major Fall 2023 and forward will be awarded a Bachelor of Arts Degree in Elementary Education.

Effective Fall 2023.

1. Change the requirements for the **Bachelor of Arts** degree in **Elementary Education** in the Department of Teacher Education. The Teacher Education Council (TEC) approved this request at its February 13, 2023 meeting.

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

* 1. Under the heading **Requirements for the Bachelor of Arts Degree in Education** replace the entire entry with the following:
		1. The University requirements for bachelor’s degrees as described in the *Undergraduate Education* section of this catalog; 120 credits including general elective credits, are required for the Bachelor of Arts degree in Elementary Education.

The completion of Mathematics 201 referenced in item 2. b. (3) below may also satisfy the University Mathematics requirement.

The University’s Tier II writing requirement for the Education major is met by completing Teacher Education 301A or 301B and Teacher Education 404A or 404B.

The completion of Teacher Education 101 and Teacher Education 102 in item 2.

a. below may also satisfy the University’s requirement for Integrative Studies in the Social, Behavioral, and Economic Sciences area.

The completion of Teacher Education 341 and Human Development and Family Studies 321 and Human Development and Family Studies 321L in item 2. a. and 2. c. below or Teacher Education 341 and History 301 or History 302 in item 2. a. and 2. c. below may also satisfy the University’s requirement for Integrative Studies in the Arts and Humanities area.

* + 1. The following requirements for the major:

CREDITS

### Professional Education Courses:

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

|  |  |  |  |
| --- | --- | --- | --- |
| CEP | 240 | Diverse Learners in Multicultural |  |
|  |  | Perspectives | 3 |
| TE | 101 | Social Foundations of Justice and |  |
|  |  | Equity in Education | 3 |
| TE | 102 | Pedagogy and Politics of Justice |  |
|  |  | and Equity in Education | 3 |
| TE | 341 | Teaching and Learning of (Bi) |  |
|  |  | Multilingual Learners | 3 |
| TE | 371 | Justice and Equity Seminar I | 1 |
| TE | 471 | Justice and Equity Seminar III | 1 |
| TE | 471 | Justice and Equity Seminar IV | 1 |

* + - 1. **Elementary Education Courses** (12 credits):
				1. Both of the following courses (6 credits):

|  |  |  |  |
| --- | --- | --- | --- |
| TE | 202 | Engaging Elementary Learners with |  |
|  |  | Mathematics | 3 |
| TE | 348 | Reading and Responding to |  |
|  |  | Children’s Literature | 3 |

* + - * 1. *Literacy*

One of the following courses (3 credits):

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

* + - * 1. *Mathematics* (3 credits):

MTH 201 Elementary Mathematics for Teachers I 3

* + - 1. One of the following concentrations (41 or 42 credits): **Prekindergarten through Grade Three** (41 credits): All of the following courses:

HDFS 320 Interaction with Children in Groups 3

HDFS 320L Interaction with Children-Laboratory 1

HDFS 321 Curriculum for Children (W) 3

HDFS 321L Curriculum for Children-Laboratory 1

TE 330 Science Curriculum for Young Learners (PK-3) 3

TE 331 Social Studies for Young Learners (PK-3) 3

TE 403A Teaching of Science to Diverse Learners (PK-3) 3

TE 404A Teaching of Social Studies to Diverse

Learners (PK-3) 3

TE 405A Teaching Literacy to Diverse Learners I (PK-3) 3

TE 405B Teaching Literacy to Diverse Learners II (PK-3) 3

TE 406A Teaching Mathematics to Diverse Learners I (PK-3) 3

TE 406B Teaching Mathematics to Diverse Learners II (PK-3) 3

TE 481 PK-3 Internship I 3

TE 482 PK-3 Internship II 6

**Grade Three through Grade Six** (42 credits):

* + - * 1. One of the following United States history courses (3 credits):

|  |  |  |  |
| --- | --- | --- | --- |
| HST | 301 | Indigenous-European Encounters |  |
|  |  | in North America | 3 |
| HST | 302 | Revolutionary America | 3 |
| One of the following arts integration courses (3 credits): |
| TE | 430 | Introduction to Arts in the Classroom | 3 |
| TE | 431 | Learning Through Drama | 3 |
| TE | 432 | Learning Through Movement | 3 |
| All of the following courses (36 credits): |
| TE | 204 | Engaging Elementary Learners |  |
|  |  | in Science: Culture |  |
|  |  | and Equity | 3 |
| TE | 332 | Science Curriculum for Upper |  |
|  |  | Elementary Learners (3-6) | 3 |
| TE | 333 | Social Studies for Upper Elementary |  |
|  |  | Learners (3-6) | 3 |
| TE | 403B | Teaching of Science to Diverse |  |
|  |  | Learners (3-6) | 3 |
| TE | 404B | Teaching of Social Studies to |  |
|  |  | Diverse Learners (3-6) | 3 |
| TE | 405 | Teaching Literacy to Diverse |  |
|  |  | Learners I (3-6) | 3 |
| TE | 405C | Teaching Literacy to Diverse |  |
|  |  | Learners II (3-6) | 3 |
| TE | 406 | Teaching Mathematics to Diverse |  |
|  |  | Learners I (3-6) | 3 |
| TE | 406C | Teaching Mathematics to Diverse |  |
|  |  | Learners II (3-6) | 3 |
| TE | 484 | 3-6 Internship I | 3 |
| TE | 485 | 3-6 Internship II | 6 |

* + - 1. **English as a Second Language** (19 to 23 credits):

Completion of this requirement along with TE 341 satisfies the course requirements for the additional endorsement in English as a Second Language. ESL can be waived by completion of Birth-Kindergarten endorsement for Prekindergarten through Grade 3 students.

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

LLT 307 Methods of Second and Foreign

Language Teaching 3

|  |  |
| --- | --- |
| LLT | 346 Pedagogical English Grammar |
| TE | for English Teachers 3342 Teaching Methods for (Bi)Multilingual |
|  |  | Learners | 3 |
| TE | 503 | Internship in Teaching Diverse |  |
|  |  | Learners in Additional |  |
|  |  | Endorsement Areas | 1 |
| One of the following courses (3 credits): |
| LLT | 361 | Second and Foreign Language |  |
|  |  | Learning | 3 |
| LLT | 362 | Child Second Language Acquisition | 3 |
| One of the following courses (3 or 4 credits) |
| LIN | 200 | Introduction to Language | 3 |
| LIN | 401 | Introduction to Linguistics | 4 |
| Complete either (a) or (b) (3 or 6 credits): |
| (a) | ANP | 420 | Language and Culture | 3 |
| (b) | COM | 310 | Intercultural Communication | 3 |
|  | or |  |  |  |
|  | COM | 320 | Diversity and Communication | 3 |
|  | LIN | 471 | Sociolinguistics | 3 |

* + - * 1. (4)

### Optional Additional Teaching Endorsements

Students may elect to complete one or more optional disciplinary teaching minor(s), in addition to the required grade band concentration and English as a Second Language requirements. The following disciplinary teaching minors are available for prospective elementary school teachers.

|  |  |
| --- | --- |
| Arabic | 20 |
| Chinese | 24 |
| French | 21 |
| German | 23 |
| Japanese | 24 |
| Spanish | 24 |

Requirements for the disciplinary teaching minors can be found in the section Requirements for the Disciplinary Teaching Minors in the section on TEACHER CERTIFICATION, below. Students

wishing to complete optional minors should schedule an appointment with the College of Education Advising Office.

Effective Fall 2023.

1. Change the name of the **Teacher Certification Internship Studies Program** in the Department of Teacher Education to **Teacher Certification Program**. This is a NOHN (non-degree) program.

Effective Fall 2023.

1. Change the requirements for the **Teacher Certification Program** in the Department of Teacher Education. The Teacher Education Council (TEC) approved this request at its February 13, 2023 meeting.

*Please note that the Language Arts, MJEL (BX endorsement), Integrated Science, MJEL/Comprehensive Group Major (DI endorsement), Social Studies, MJEL (RX endorsement), and the Mathematics, MJEL (EX endorsement) will no longer be noted in the catalog and should only be kept open until Fall 2024 to accommodate current students.*

* 1. Under the heading **REQUIREMENTS FOR TEACHER CERTIFICATION** replace the entire entry with the following:

Teacher Certification at Michigan State University is housed in the College of Education. In order to be certified as a teacher at Michigan State University, candidates must have an acceptable subject matter teaching major and also complete all relevant teacher education course work. Candidates will also have to pass state certification tests and meet other state and program requirements.

Interested candidates should schedule a meeting with the College of Education Student Affairs Office for more details.

### Course Requirements for Elementary Teacher Certification

*GPA Standards*: All elementary teacher candidates must pass the following courses with a minimum grade of 2.0: CEP 240, TE 101, TE 102, TE 341, TE 301A or 301B, and TE 348. Within the Grade Three through Grade Six concentration: HST 301 or HST 302 must be passed with a minimum grade of 2.0. All elementary teacher candidates must have a grade point average of 2.5 or above for pre-internship professional education courses required for teacher certification with no individual grade below 2.0.

1. **Professional Education Courses** (15 credits):

|  |  |  |  |
| --- | --- | --- | --- |
| CEP | 240 | Introduction to Exceptional Learners | 3 |
| TE | 101 | Social Foundations of Justice and Equity in Education | 3 |
| TE | 102 | Pedagogy and Politics of Justice and Equity in Education | 3 |
| TE | 341 | Teaching and Learning of (Bi)Multilingual Learners | 3 |
| TE | 371 | Justice and Equity Seminar I | 1 |
| TE | 471 | Justice and Equity Seminar III | 1 |
| TE | 472 | Justice and Equity Seminar IV | 1 |

1. **Elementary Education Courses** (12 credits):
	1. All of the following courses (6 credits):

TE 348 Reading and Responding to Children’s Literature 3

TE 202 Engaging Elementary Learners with Mathematics 3

* 1. *Literacy*

One of the following courses (3 credits):

TE 301A Children’s Literacy Development PK-3 (W) 3

TE 301B Children’s Literacy Development 3-6 (W) 3

* 1. **Mathematics** (3 credits):

MTH 201 Elementary Mathematics for Teachers I 3

1. One of the following concentrations (41 or 42 credits):

**Prekindergarten through Grade Three** (41 credits):

All of the following courses:

HDFS 320 Interaction with Children in Groups 3

HDFS 320L Interaction with Children-Laboratory 1

HDFS 321 Curriculum for Children (W) 3

HDFS 321L Curriculum for Children-Laboratory 1

TE 330 Science Curriculum for Young Learners (PK-3) 3

TE 331 Social Studies Curriculum for Young Learners (PK-3) 3

TE 403A Teaching of Science to Diverse Learners (PK-3) 3

TE 404A Teaching of Social Studies to Diverse Learners (PK-3) (W) 3

TE 405A Teaching Literacy to Diverse Learners I (PK-3) 3

TE 405B Teaching Literacy to Diverse Learners II (PK-3) 3

TE 406A Teaching Mathematics to Diverse Learners I (PK-3) 3

TE 406B Teaching Mathematics to Diverse Learners II (PK-3) 3

TE 481 PK-3 Internship I 3

TE 482 PK-3 Internship II 6

**Grade Three through Grade Six** (42 credits):

* 1. One of the following United States history courses (3 credits): (2)

|  |  |  |  |
| --- | --- | --- | --- |
| HST | 301 | Indigenous-European Encounters in North America | 3 |
| HST | 302 | Revolutionary America | 3 |
| One of the following arts integration courses (3 credits): |
| TE | 430 | Introduction to Arts in the Classroom | 3 |
| TE | 431 | Learning Through Drama | 3 |
| TE | 432 | Learning Through Movement | 3 |
| All of the following courses (36 credits): |
| TE | 204 | Engaging Elementary Learners in Science: |  |
|  |  | Culture and Equity | 3 |
| TE | 332 | Science Curriculum for Upper Elementary |  |
|  |  | Learners (3-6) | 3 |
| TE | 333 | Social Studies for Upper Elementary Learners (3-6) | 3 |
| TE | 403B | Teaching of Science to Diverse Learners (3-6) | 3 |
| TE | 404B | Teaching of Social Studies to Diverse |  |
|  |  | Learners (3-6) (W) | 3 |
| TE | 405 | Teaching Literacy to Diverse Learners I (3-6) | 3 |
| TE | 405C | Teaching Literacy to Diverse Learners II (3-6) | 3 |
| TE | 406 | Teaching Mathematics to Diverse Learners I (3-6) | 3 |
| TE | 406C | Teaching Mathematics to Diverse Learners II (3-6) | 3 |

(3)

|  |  |  |  |
| --- | --- | --- | --- |
| TE | 484 | 3-6 Internship I | 3 |
| TE | 485 | 3-6 Internship II | 6 |

1. **English as a Second Language** (19 to 23 credits):

Completion of this requirement along with TE 341 satisfies the course requirements for the additional endorsement in English as a Second Language. ESL can be waived by completion of Birth-Kindergarten endorsement for Prekindergarten through Grade 3 students.

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

|  |  |  |  |
| --- | --- | --- | --- |
| LLT | 307 | Methods of Second and Foreign Language Teaching | 3 |
| LLT | 346 | Pedagogical English Grammar for English Teachers | 3 |
| TE | 342 | Teaching Methods for (Bi)multilingual Learners | 3 |
| TE | 503 | Internship in Teaching Diverse Learners in |  |
|  |  | Additional Endorsement Areas | 1 |
| One of the following courses (3 credits): |
| LLT | 361 | Second and Foreign Language Learning | 3 |
| LLT | 362 | Child Second Language | 3 |
| One of the following courses (3 or 4 credits): |
| LIN | 200 | Introduction to Language | 3 |
| LIN | 401 | Introduction to Linguistics | 4 |
| Complete either (a) or (b) (3 or 6 credits): |
| (a) | ANP | 420 | Language and Culture | 3 |
| (b) | COM | 310 | Intercultural Communication | 3 |
|  | or |  |  |  |
|  | COM | 320 | Diversity and Communication | 3 |
|  | LIN | 471 | Sociolinguistics | 3 |

* 1. (4)

### Optional Additional Teaching Endorsements

Students may elect to complete one or more optional disciplinary teaching minor(s), in addition to the required grade band concentration and English as a Second Language requirements. The following disciplinary teaching minors are available for prospective elementary school teachers.

|  |  |
| --- | --- |
| Arabic | 20 |
| Chinese | 24 |
| French | 21 |
| German | 23 |
| Japanese | 24 |
| Spanish | 24 |

### Course Requirements for Secondary Teacher Certification

*GPA Standards*: All elementary teacher candidates must pass the following courses with a minimum grade of 2.0: CEP 240, TE 101, TE 102, TE 150, TE 302, and TE 341. All secondary teacher candidates must have a grade point average of 2.5 or above for pre-internship professional education courses required for teacher certification with no individual grade below 2.0.

a. **Professional Education Courses** (18 credits):

|  |  |  |  |
| --- | --- | --- | --- |
| CEP | 240 | Introduction to Exceptional Learners | 3 |
| TE | 101 | Social Foundations of Justice and Equity in Education | 3 |
| TE | 102 | Pedagogy and Politics of Justice and Equity in Education | 3 |
| TE | 150 | Reflections on Learning | 3 |
| TE | 302 | Literacy and Adolescent Learners in School and |  |
|  |  | Community Contexts | 3 |
| TE | 341 | Teaching and Learning of (Bi) Multilingual Learners | 3 |
| **Subject-Matter Teaching Methodology Courses** (18 credits):(1) **English** (18 credits): |
| TE | 310 | Clinical Experience in English Education I | 3 |
| TE | 410 | Clinical Experience in English Education II | 3 |
| TE | 411 | Seminar in English Education I | 3 |
| TE | 412 | Seminar in English Education II | 3 |
| TE | 413 | Student Teaching Internship in English Education | 6 |

b.

(2) **Mathematics** (18 credits):

TE 314 Clinical Experiences in Mathematics Education I 3

TE 414 Clinical Experiences in Mathematics Education II 3

TE 415 Seminar in Mathematics Education I 3

TE 416 Seminar in Mathematics Education II 3

TE 417 Student Teaching Internship in Mathematics

Education 6

(

|  |
| --- |
| (3) **Science** (18 credits): |
| TE | 321 | Clinical Experience in Science Education I | 3 |
| TE | 421 | Clinical Experience in Science Education II | 3 |
| TE | 422 | Seminar in Science Education I | 3 |
| TE | 423 | Seminar in Science Education II | 3 |
| TE | 424 | Student Teaching Internship in Science Education | 6 |
| 4) **Social Studies** (18 credits): |
| TE | 325 | Clinical Experience in Social Studies Education I | 3 |
| TE | 425 | Clinical Experience in Social Studies Education II | 3 |
| TE | 426 | Seminar in Social Studies Education I | 3 |
| TE | 427 | Seminar in Social Studies Education II | 3 |
| TE | 428 | Student Teaching Internship in Social Studies |  |
|  |  | Education 6 |  |

### (5) Agriscience and Natural Resources

Students seeking teacher licensure in Agriscience and Natural Resources complete all of their teacher education course work in the College of

Agriculture and Natural Resources. Students should contact the Agriculture, Food and Natural Resources Education Advisor for more details.

### c. Optional Teaching Endorsements

Students may elect to complete one or more optional disciplinary teaching minor(s). The following disciplinary teaching minors are available for prospective secondary teachers. Students wishing to complete one or more of the following optional disciplinary teaching minors should schedule an appointment with the College of Education Advising Office.

Agriculture, Food and Natural Resources Education Arabic (Secondary)

Biology Chemistry

Chinese (Secondary) Earth Science Economics

English

French (Secondary) Geography

German (Secondary) History

Japanese (Secondary) Mathematics

Physics

Political Science Psychology

Spanish (Secondary)

English as a Second Language (Secondary)

### Course Requirements for PK-12 Teacher Certification

*GPA Standards*: All PK-12 teacher candidates must pass the following courses with a minimum grade of 2.0: CEP 240, TE 101, TE 102, TE 150, TE 302, and TE 341. All PK-12 teacher

candidates must have a grade point average of 2.5 or above for pre-internship professional education courses required for teacher certification with no individual grade below 2.0.

a. **Professional Education Courses** (18 credits):

|  |  |  |  |
| --- | --- | --- | --- |
| CEP | 240 | Introduction to Exceptional Learners | 3 |
| TE | 101 | Social Foundations of Justice and Equity in Education | 3 |
| TE | 102 | Pedagogy and Politics of Justice and Equity in Education | 3 |
| TE | 150 | Reflections on Learning | 3 |
| TE | 302 | Literacy and Adolescent Learners in School and |  |
|  |  | Community Contexts | 3 |
| TE | 341 | Teaching and Learning of (Bi) Multilingual Learners | 3 |
| **Subject-Matter Teaching Methodology Courses** (18 credits):(1) World Languages (18 credits): |
| TE | 334 | Clinical Experiences in World Language Education I | 3 |
| TE | 434 | Clinical Experiences in World Language Education II | 3 |
| TE | 435 | Seminar in World Language Education I | 3 |
| TE | 436 | Seminar in World Language Education II | 3 |

b.

TE 437 Student Teaching Internship in World Language

Education 3

### Visual Arts

Students seeking teacher licensure in Visual Arts Education should contact the advisor in the Department of Art, Art History, and Design for more details.

### Music Education

Students seeking teacher licensure in Music Education complete TE 101, TE 150, and TE 302. The remainder of their teacher education course work takes place in the College of Music. Students should contact the advising office in the College of Music for more details.

### c. Optional Teaching Endorsements

Students may elect to complete one or more optional disciplinary teaching minor(s). The following disciplinary teaching minors are available for prospective PK-12 teachers in World Languages. Students wishing to complete one or more of the following optional disciplinary teaching minors should schedule an appointment with the College of Education Advising Office.

Agriculture, Food and Natural Resources Education Arabic (Secondary)

Biology Chemistry

Chinese (Secondary) Earth Science Economics

English

French (Secondary) Geography

German (Secondary) History

Japanese (Secondary) Mathematics

Physics

Political Science Psychology

Spanish (Secondary)

English as a Second Language (Secondary)

**Disciplinary Majors Available for Elementary Teacher Certification** Students electing to complete the requirements for an optional disciplinary teaching major in addition to their required teaching major should make their choices from the list below.

### MAJOR COLLEGE

Arabic Arts and Letters

Chinese Arts and Letters

French Arts and Letters

German Arts and Letters

Japanese Arts and Letters

Spanish Arts and Letters

Special Education-Learning Disabilities Education

**Disciplinary Teaching Minors Available for Elementary Teacher Certification** Students electing to complete a disciplinary teaching minor(s) in addition to their required major should make their choices from the list below.

### MINOR COLLEGE

Arabic Arts and Letters

Chinese Arts and Letters

Early Childhood-General and Special Education Social Science French Arts and Letters

German Arts and Letters

Japanese Arts and Letters

Mathematics-Elementary Natural Science

Russian Arts and Letters

Spanish-Elementary Arts and Letters Teaching English to Speakers of Other Languages Arts and Letters

### Disciplinary Majors Available for Secondary Teacher Certification MAJOR COLLEGE

Agriculture, Food and Natural Resources Education Agriculture and Natural Resources Arabic Arts and Letters

Biological Science–Secondary Education Natural Science Chemistry Natural Science

Chinese Arts and Letters

Comparative Cultures and Politics James Madison College

English Arts and Letters

French Arts and Letters

German Arts and Letters

History Education Social Science

Interdisciplinary Studies in Social Science:

Social Science Education Social Science International Relations James Madison College

Japanese Arts and Letters

Mathematics Natural Science

Mathematics, Advanced Natural Science

Physical Science–Secondary Education Natural Science

Physics Natural Science

Political Theory and Constitutional Democracy James Madison College Social Relations and Policy James Madison College

Spanish Arts and Letters

### Disciplinary Teaching Minors Available for Secondary Teacher Certification MINOR COLLEGE

Agriculture, Food and Natural Resources Education Agriculture and Natural Resources Arabic Arts and Letters

Biology Natural Science

Chemistry Natural Science

Chinese Arts and Letters

Earth Science Natural Science

Economics Social Science

English Arts and Letters

French Arts and Letters

Geography Social Science

German Arts and Letters

History Social Science

Japanese Arts and Letters

Mathematics-Secondary Natural Science

Physics Natural Science

Political Science Social Science

Psychology Social Science

Spanish-Secondary Arts and Letters Teaching English to Speakers of Other Languages Arts and Letters

The economics, geography, and political science disciplinary teaching minors are available only to students pursuing a major in comparative cultures and politics, international relations, political theory and constitutional democracy, social relations and policy, interdisciplinary studies in social science: social science education, or history education.

### Undergraduate Degree Majors Leading to PK-12 Endorsements on a Secondary Teaching Certificate

**MAJOR COLLEGE**

Arabic Arts and Letters

Art Education Arts and Letters

Chinese Arts and Letters

French Arts and Letters

German Arts and Letters

Japanese Arts and Letters

Music Education Music

Spanish Arts and Letters

**REQUIREMENTS FOR THE DISCIPLINARY TEACHING MINORS**

(*no changes forward, requirements as currently listed*)

Effective Fall 2023.

## COLLEGE OF ENGINEERING

1. Change the requirements for the **Bachelor of Science** degree in **Biosystems Engineering** in the Department of Biosystems and Agricultural Engineering.

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

* 1. Under the heading **Requirements for the Bachelor of Science Degree in Biosystems Engineering** make the following changes:
		1. In item 1., replace paragraph two with the following:

The University’s Tier II writing requirement for the Biosystems Engineering major is met by completing Biosystems Engineering 334 or 485. These courses are referenced in item 3.

a. below.

* + 1. In item 3. a., add the following courses:

|  |  |  |  |
| --- | --- | --- | --- |
| BE | 201 | Drafting in Biosystems Engineering | 1 |
| CEM | 151 | General and Descriptive Chemistry | 4 |

Delete the following course:

CE 274 Graphics for Civil and Environmental Engineers 1

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

BS 172 Organismal and Population Biology Laboratory 2

Add the following course:

BS 172L Organismal and Population Biology Laboratory 2

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

MMG 404 Human Genetics 3

Delete the following course:

PLB 424 Algal Biology 4

* 1. Under the heading **Concentration in Biosystems Engineering** make the following changes:
		1. In the **Bioenergy and Bioproduct Engineering** concentration make the following changes:

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

|  |  |  |  |
| --- | --- | --- | --- |
| CSS | 442 | Agricultural Ecology | 3 |
| FOR | 427 | Biomass and Bioproducts Chemistry | 3 |

|  |  |  |  |
| --- | --- | --- | --- |
| FOR | 466 | Natural Resource Policy | 3 |
| FW | 444 | Conservation Biology | 3 |
| GLG | 435 | Geomicrobiology | 4 |
| MMG | 425 | Microbial Ecology | 3 |

Delete the following courses:

|  |  |  |  |
| --- | --- | --- | --- |
| CHE | 882 | Advanced Biochemical Engineering | 3 |
| CHE | 883 | Multidisciplinary Bioprocessing Laboratory | 3 |
| GLG | 471 | Applied Geophysics | 4 |
| PLB | 424 | Algal Biology | 4 |

* + 1. In the **Biomedical Engineering** concentration make the following changes:
1. In item 2., add the following course:

MMG 404 Human Genetics 3

1. In item 3., add the following course:

|  |  |  |  |
| --- | --- | --- | --- |
| BE | 440 | Entrepreneurial Engineering for Innovation inHealth and Safety | 3 |
| MMG | 404 | Human Genetics | 3 |

* + 1. In the **Ecosystems Engineering** concentration make the following changes:
1. In item 1., add the following course:

BE 484 Water Resource Recovery Engineering 3

Delete the following course:

MMG 425 Microbial Ecology 3

1. Renumber item 2. to item 3., and add the following new item 2.: One of the following courses (3 credits):

CSS 442 Agricultural Ecology 3

MMG 425 Microbial Ecology 3

1. In item 3., add the following courses and note:

|  |  |  |  |
| --- | --- | --- | --- |
| ENE | 422 | Applied Hydraulics | 3 |
| FW | 444 | Conservation Biology | 3 |
| GEO | 402 | Agricultural Climatology | 3 |
| MC | 450 | International Environmental Law and Policy | 3 |
| MMG | 425 | Microbial Ecology | 3 |
| PLB | 418 | Plant Systematics | 3 |

Courses used to fulfill requirement 2. in this concentration may not be used to fulfill this requirement.

Delete the following course:

CE 422 Applied Hydraulics 3

Effective Fall 2023.

1. Change the requirements in the **Bachelor of Science** degree in **Mechanical Engineering** in the Department of Mechanical Engineering.

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

* 1. Under the heading **Requirements for the Bachelor of Science Degree in Mechanical Engineering** make the following changes:
		1. In item 3. c. **Senior Electives**, add the following courses:

|  |  |  |  |
| --- | --- | --- | --- |
| ME | 456 | Mechatronic System Design | 3 |
| ME | 496 | Biomechanical Analysis of Human Movement | 3 |

* + 1. In item 3. d. **Design-intensive Senior Electives**, add the following course:

ME 456 Mechatronic System Design 3

* + 1. Under the heading **Aerospace Engineering** concentration replace the requirements with the following:

Both of the following courses (6 credits):

|  |  |  |  |
| --- | --- | --- | --- |
| ME | 440 | Aerospace Propulsion | 3 |
| ME | 441 | Aerodynamics and Aircraft Performance | 3 |
| One of the following courses (3 credits): |
| ME | 423 | Intermediate Mechanics of Deformable Solids | 3 |
| ME | 456 | Mechatronic System Design | 3 |
| ME | 426 | Introduction to Composite Materials | 3 |
| ME | 475 | Computer Aided Design of Structures | 3 |
| One of the following courses (3 credits): |
| ME | 422 | Introduction to Combustion | 3 |
| ME | 433 | Introduction to Computational Fluid Dynamics | 3 |
| ME | 442 | Turbomachinery | 3 |

* + 1. Under the heading **Biomedical Engineering** concentration replace the requirements with the following:

Both of the following courses (7 credits):

|  |  |  |  |
| --- | --- | --- | --- |
| BS | 161 | Cell and Molecular Biology | 3 |
| PSL | 250 | Introductory Physiology | 4 |
| Nine credits from the following courses: |
| BE | 444 | Biosensors for Medical Diagnostics | 3 |
| ECE | 445 | Biomedical Instrumentation | 3 |
| ME | 494 | Biofluid Mechanics and Heat Transfer | 3 |
| ME | 495 | Tissue Mechanics | 3 |
| ME | 496 | Biomechanical Analysis of Human Movement | 3 |
| ME | 497 | Biomechanical Design in Product Development | 3 |
| MSE | 425 | Biomaterials and Biocompatibility | 3 |

Students who select BE 444, ECE 445, or MSE 425 may request to apply these course credits towards fulfillment of the Mechanical Engineering Major Senior-Elective requirement (item 3.c. above).

* + 1. Under the heading **Manufacturing Engineering** concentration add the following note:

Students who select CHE 472, ECE 415, or MSE 426 may request to apply these course credits towards fulfillment of the Mechanical Engineering Major Senior-Elective requirement (item 3.c. above).

Effective Fall 2023.

## COLLEGE OF LAW

1. Change the requirements for the **Juris Doctor** degree in the Michigan State University College of Law. The University Committee on Graduate Studies (UCGS) approved this request at its February 20, 2023 meeting.

*The concentrations in the Juris Doctor degree are noted on the student’s academic record when the requirements for the degree have been completed.*

* 1. Under the heading **Juris Doctor** make the following changes:
		1. In item 3., delete the following courses:

|  |  |  |  |
| --- | --- | --- | --- |
| LAW | 501A | Basic Income Tax A | 2 |
| LAW | 501B | Basic Income Tax B | 2 |

* + 1. In the **Indigenous Law** concentration, replace the entire entry with the following:

|  |  |
| --- | --- |
| (1) The following course: |  |
| LAW 635B Federal Law and Indian Tribes | 3 |
| (2) Two of the following courses (4 or 5 credits): |  |
| LAW 635A Advanced Topics in Indian Law | 2 |
| LAW 635D American Indian Children and the Law | 2 |
| LAW 635E Tribal Law | 3 |
| LAW 635F Gaming Law | 2 |
| LAW 635G Global Perspectives on Indigenous People | 2 |
| Additional courses may be used to fulfill this requirement with prior |  |
| approval by the Director of the Indigenous Law and Policy Center. |  |
| (3) Two of the following courses (5 to 7 credits): |  |
| LAW 501D Trusts and Estates | 3 or 4 |
| LAW 532 Administrative Law | 3 |
| LAW 541F Family Law: Child, Family and the State | 3 |
| LAW 566A Environmental Law | 3 |
| LAW 566C Natural Resource Law | 2 |
| LAW 579G Federal Jurisdiction | 3 |
| LAW 616B Criminal Procedure: Investigation | 3 |

* + - 1. Complete the Indian Law Clinic I (LAW 631J) course or an externship with a tribal government (legal department, court or government office), state or federal government unit that focuses on Indian Law issues, or a non-profit or non-governmental organization involved in Indian law issues. The externship must be approved by the Associate Dean of Experiential Education and the Director of the Indigenous Law and Policy Center.
			2. Complete a substantial research paper on a topic relating to Indigenous law issues. The paper must meet the law school’s ULWR, whether or not it is actually used to satisfy the ULWR. This requirement can be satisfied through the following:
				1. Course from the list of Indigenous Law Certificate Program required courses listed on the course schedule with a "U" for ULWR, or
				2. Directed Study (LAW 624), or paper for another course with the approval of the Director of the Indigenous Law and Policy Center following the supervising professor’s approval for the Directed Study course or paper.

Effective Fall 2023.

## COLLEGE OF NATURAL SCIENCE

1. Delete the curriculum and degree requirements for the **Doctor of Philosophy** degree in **Cell and Molecular Biology-Environmental Toxicology** in the College of Natural Science. The University Committee on Graduate Studies (UCGS) provided consultative commentary to the Provost after considering this request at its January 23, 2023 meeting. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Graduate Studies.

No new students are to be admitted to the program effective Fall 2022. No students are to be readmitted to the program effective Fall 2022. Effective Fall 2030, coding for the program will be discontinued and the program will no longer be available in the College of Natural Science. Students who have not met the requirements for the Doctor of Philosophy degree in Cell and Molecular Biology-Environmental Toxicology through the College of Natural Science prior to Spring 2030 will have to change their major.

1. Delete the curriculum and degree requirements for the **Doctor of Philosophy** degree in **Genetics and Genome Sciences-Environmental Toxicology** in the College of Natural Science. The University Committee on Graduate Studies (UCGS) provided consultative commentary to the Provost after considering this request at its January 23, 2023 meeting. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Graduate Studies.

No new students are to be admitted to the program effective Fall 2022. No students are to be readmitted to the program effective Fall 2022. Effective Fall 2030, coding for the program will be discontinued and the program will no longer be available in the College of Natural Science. Students who have not met the requirements for the Doctor of Philosophy degree in Genetics and Genome Sciences-Environmental Toxicology through the College of Natural Science prior to Spring 2030 will have to change their major.

1. Delete the curriculum and degree requirements for the **Doctor of Philosophy** degree in **Neuroscience- Environmental Toxicology** in the College of Natural Science. The University Committee on Graduate Studies (UCGS) provided consultative commentary to the Provost after considering this request at its January 23, 2023 meeting. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Graduate Studies.

No new students are to be admitted to the program effective Fall 2022. No students are to be readmitted to the program effective Fall 2022. Effective Fall 2030, coding for the program will be discontinued and the program will no longer be available in the College of Natural Science. Students who have not met the requirements for the Doctor of Philosophy degree in Neuroscience-Environmental Toxicology through the College of Natural Science prior to Spring 2030 will have to change their major.

1. Delete the curriculum and degree requirements for the **Doctor of Philosophy** degree in **Biochemistry and Molecular Biology-Environmental Toxicology** in the Department of Biochemistry and Molecular Biology. The University Committee on Graduate Studies (UCGS) provided consultative commentary to the Provost after considering this request at its January 23, 2023 meeting. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Graduate Studies.

No new students are to be admitted to the program effective Fall 2022. No students are to be readmitted to the program effective Fall 2022. Effective Fall 2030, coding for the program will be discontinued and the program will no longer be available in the Department of Biochemistry and Molecular Biology. Students who have not met the requirements for the Doctor of Philosophy degree in Biochemistry and Molecular Biology- Environmental Toxicology through the Department of Biochemistry and Molecular Biology prior to Spring 2030 will have to change their major.

1. Delete the curriculum and degree requirements for the **Doctor of Philosophy** degree in **Chemistry- Environmental Toxicology** in the Department of Chemistry. The University Committee on Graduate Studies (UCGS) provided consultative commentary to the Provost after considering this request at its January 23, 2023 meeting. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Graduate Studies.

No new students are to be admitted to the program effective Fall 2022. No students are to be readmitted to the program effective Fall 2022. Effective Fall 2030, coding for the program will be discontinued and the program will no longer be available in the Department of Chemistry. Students who have not met the requirements for the Doctor of Philosophy degree in Chemistry-Environmental Toxicology through the Department of Chemistry prior to Spring 2030 will have to change their major.

1. Delete the curriculum and degree requirements for the **Doctor of Philosophy** degree in **Environmental Geosciences-Environmental Toxicology** in the Department of Earth and Environmental Sciences. The University Committee on Graduate Studies (UCGS) provided consultative commentary to the Provost after considering this request at its January 23, 2023 meeting. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Graduate Studies.

No new students are to be admitted to the program effective Fall 2022. No students are to be readmitted to the program effective Fall 2022. Effective Fall 2030, coding for the program will be discontinued and the program will no longer be available in the Department of Earth and Environmental Sciences. Students who have not met the requirements for the Doctor of Philosophy degree in Environmental Geosciences- Environmental Toxicology through the Department of Earth and Environmental Sciences prior to Spring 2030 will have to change their major.

1. Delete the curriculum and degree requirements for the **Doctor of Philosophy** degree in **Integrative Biology-Environmental Toxicology** in the Department of Integrative Biology. The University Committee on Graduate Studies (UCGS) provided consultative commentary to the Provost after considering this request at its January 23, 2023 meeting. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Graduate Studies.

No new students are to be admitted to the program effective Fall 2022. No students are to be readmitted to the program effective Fall 2022. Effective Fall 2030, coding for the program will be discontinued and the program will no longer be available in the Department of Integrative Biology. Students who have not met the requirements for the Doctor of Philosophy degree in Integrative Biology-Environmental Toxicology through the Department of Integrative Biology prior to Spring 2030 will have to change their major.

1. Delete the curriculum and degree requirements for the **Doctor of Philosophy** degree in **Physiology- Environmental Toxicology** in the Department of Physiology. The University Committee on Graduate Studies (UCGS) provided consultative commentary to the Provost after considering this request at its January 23, 2023 meeting. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Graduate Studies.

No new students are to be admitted to the program effective Fall 2022. No students are to be readmitted to the program effective Fall 2022. Effective Fall 2030, coding for the program will be discontinued and the program will no longer be available in the Department of Physiology. Students who have not met the requirements for the Doctor of Philosophy degree in Physiology-Environmental Toxicology through the Department of Physiology prior to Spring 2030 will have to change their major.

## COLLEGE OF VETERINARY MEDICINE

1. Delete the curriculum and degree requirements for the **Doctor of Philosophy** degree in **Comparative Medicine and Integrative Biology-Environmental Toxicology** in the College of Veterinary Medicine. The University Committee on Graduate Studies (UCGS) provided consultative commentary to the Provost after considering this request at its January 23, 2023 meeting. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Graduate Studies.

No new students are to be admitted to the program effective Fall 2022. No students are to be readmitted to the program effective Fall 2022. Effective Fall 2030, coding for the program will be discontinued and the program will no longer be available in the College of Veterinary Medicine. Students who have not met the requirements for the Doctor of Philosophy degree in Comparative Medicine and Integrative Biology- Environmental Toxicology through the College of Veterinary Medicine prior to Spring 2030 will have to change their major.

1. Delete the curriculum and degree requirements for the **Doctor of Philosophy** degree in **Microbiology- Environmental Toxicology** in the Department of Microbiology and Molecular Genetics. The University Committee on Graduate Studies (UCGS) provided consultative commentary to the Provost after considering this request at its January 23, 2023 meeting. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Graduate Studies.

No new students are to be admitted to the program effective Fall 2022. No students are to be readmitted to the program effective Fall 2022. Effective Fall 2030, coding for the program will be discontinued and the program will no longer be available in the Department of Microbiology and Molecular Genetics. Students who have not met the requirements for the Doctor of Philosophy degree in Microbiology-Environmental Toxicology through the Department of Microbiology and Molecular Genetics prior to Spring 2030 will have to change their major.

1. Delete the curriculum and degree requirements for the **Doctor of Philosophy** degree in **Pathobiology- Environmental Toxicology** in the Department of Pathobiology and Diagnostic Investigation. The University Committee on Graduate Studies (UCGS) provided consultative commentary to the Provost after considering this request at its January 23, 2023 meeting. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Graduate Studies.

No new students are to be admitted to the program effective Fall 2022. No students are to be readmitted to the program effective Fall 2022. Effective Fall 2030, coding for the program will be discontinued and the program will no longer be available in the Department of Pathobiology and Diagnostic Investigation.

Students who have not met the requirements for the Doctor of Philosophy degree in Pathobiology- Environmental Toxicology through the Department of Pathobiology and Diagnostic Investigation prior to Spring 2030 will have to change their major.

1. Delete the curriculum and degree requirements for the **Doctor of Philosophy** degree in **Pharmacology and Toxicology-Environmental Toxicology** in the Department of Pharmacology and Toxicology. The University Committee on Graduate Studies (UCGS) provided consultative commentary to the Provost after considering this request at its January 23, 2023 meeting. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Graduate Studies.

No new students are to be admitted to the program effective Fall 2022. No students are to be readmitted to the program effective Fall 2022. Effective Fall 2030, coding for the program will be discontinued and the program will no longer be available in the Department of Pharmacology and Toxicology. Students who have not met the requirements for the Doctor of Philosophy degree in Pharmacology and Toxicology- Environmental Toxicology through the Department of Pharmacology and Toxicology prior to Spring 2030 will have to change their major.

# PART II - NEW COURSES

## INSTITUTE OF AGRICULTURAL TECHNOLOGY

AT 100 Career Development in Agricultural Technology

Fall of every year. 1(1-0) R: Open to students in the Institute of Agricultural Technology.

Introduction to the Institute of Agricultural Technology at Michigan State University and their local community college. Students will explore different aspects of agricultural industries, careers in agriculture, and preparation for professional internships. Field trips and professional presentations may be required. Field trips required.

SA: CSS 105

Effective Fall Semester 2023

## COLLEGE OF ARTS AND LETTERS

HA 220 Renaissance Art

Fall of every year. 3(3-0)

Arts of the European Renaissance (14th - 16th centuries) studied in a global historical context. Early and High Renaissance, Reformation, Mannerism, and Counter-Reformation. SA: HA 230

Effective Fall Semester 2023

HA 231 Baroque and Rococo Art Spring of every year. 3(3-0)

Painting, sculpture, architecture, decorative and ephemeral arts in and beyond Europe in the 17th and 18th centuries.

SA: HA 230

Effective Fall Semester 2023

HA 431 Special Topics in Early Modern Art

Fall of even years. 4(4-0) A student may earn a maximum of 8 credits in all enrollments for this course. P: (HA 102 or HA 220 or HA 231) and completion of Tier I writing requirement

Specific topics pertinent to early modern art history. Effective Fall Semester 2023

HA 454 Selected Topics in Arts of the Americas

Spring of odd years. 4(4-0) A student may earn a maximum of 8 credits in all enrollments for this course. P: Completion of Tier I Writing Requirement

Current theoretical issues and intellectual developments in the field of the Arts of the Americas.

Effective Fall Semester 2023

STA 202 Sequencing Events: Drawing Comics Throughout History

Fall of every year. 3(0-6) P: STA 201 or approval of department

Visual narrative from the Golden Age of comics to the present. Diverse methods of comic creation examined and exercised. Exploration of effect of graphic novels on narrative history.

Effective Fall Semester 2023

STA 203 Comics Memoir

Spring of every year. 3(0-6) A student may earn a maximum of 6 credits in all enrollments for this course. P: STA 201

Conceptual and cultural importance of personal narrative through the lens of comics. Critical examination of graphic novel memoirs. Exploration of narrative ideation and illustration styles.

Effective Spring Semester 2024

STA 488 Art and Science in the Laboratory

Fall of every year. 3(3-6) A student may earn a maximum of 6 credits in all enrollments for this course. P: STA 380 or approval of department Not open to students with credit in STA 888.

Introduction to laboratory science through a set of conceptual, technical, and analytical experiments, tools and research practices geared to enable novel artistic practices.

Effective Fall Semester 2023

STA 888 Art and Science in the Laboratory

Fall of every year. 3(3-6) A student may earn a maximum of 6 credits in all enrollments for this course. P: STA 380 or approval of department Not open to students with credit in STA 488.

Laboratory science is taught through a set of conceptual, technical, and analytical experiments, tools and research practices geared to enable novel artistic practices. Effective Fall Semester 2023

## DEPARTMENT OF CHEMICAL ENGINEERING AND MATERIALS SCIENCE

CHE 806 Foundations of Chemical Engineering III

Fall of every year. 3(3-0) P: CHE 804 and CHE 805 RB: Differential Equations

Process dynamics, linearization of dynamics, control strategies, controller tuning, process economics, and process design.

Effective Fall Semester 2023

## DEPARTMENT OF CHEMISTRY

CEM 144 Organic Chemistry and Applications

Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: CEM 141 or CEM 151 or CEM 181H or LB 171 R: Approval of department. Not open to students with credit in CEM 351 or CEM 143 or CEM 251 or LB 271.

One-semester survey of the main organic functional groups with applications to everyday life, industry, and biology.

Effective Fall Semester 2023

## DEPARTMENT OF COUNSELING, EDUCATIONAL PSYCHOLOGY AND SPECIAL EDUCATION

CEP 339 Classroom Management in Special Education

Fall of every year. 3(3-0) P: CEP 240 R: Open to undergraduate students in the Special Education- Learning Disabilities Major.

Principles and techniques for classroom management in inclusive and special education settings, including preventive strategies. Designing school-wide, classroom-based routines that fit within a PBIS approach.

Effective Fall Semester 2023

CEP 400 Professional Skills in Special Education

Spring of every year. 1(1-0) P: CEP 240 and CEP 351 and CEP 301 and CEP 349 R: Open to undergraduate students in the Special Education-Learning Disabilities Major.

Special education teaching skills, including first aid, high-leverage practices, requirements for special education professional development.

Effective Spring Semester 2024

CEP 401 Transition and Collaboration in Special Education

Spring of every year. 3(3-0) P: CEP 240 R: Open to undergraduate students in the Special Education-Learning Disabilities Major.

Transition models, laws, and practices for secondary students with disabilities. Models and methods of collaboration with teachers, parents, and others to support students with disabilities. Advocacy for students with disabilities in school and community settings.

Effective Spring Semester 2024

CEP 402 Math Interventions for Students with Disabilities

Fall of every year. 3(3-0) P: CEP 240 R: Open to undergraduate students in the Special Education- Learning Disabilities Major.

Evidence-based and research-based mathematics interventions and supports, and response to intervention in mathematics for students with disabilities and students at risk. Effective Fall Semester 2024

CEP 403 Assessment for Students with Disabilities

Fall of every year. 3(3-0) P: CEP 240 R: Open to undergraduate students in the Special Education- Learning Disabilities Major.

Informal and formal assessment methods for planning and evaluating instruction and for classifying and placing students with mild disabilities.

Effective Fall Semester 2024

## COLLEGE OF ENGINEERING

BME 860 NanoEngineering in Biomedicine

Fall of every year. 3(3-0) RB: Organic, inorganic and physical chemistry, cell biology, transport and bio-transport phenomena. R: Open to seniors or graduate students.

Conventional synthetic and manufacturing techniques of nanoscale materials, devices, and specific nanosystems, applied to medicine, medical diagnostics, imaging, sensing, and tissue regeneration.

Effective Fall Semester 2023

## DEPARTMENT OF FORESTRY

FOR 150 Foundations of Forestry Field Skills

Fall of every year. 1(1-0) R: Open to undergraduate students in the Department of Community Sustainability or in the Department of Fisheries and Wildlife or in the Department of Forestry. Open to students in the Lyman Briggs Fisheries and Wildlife Coordinate Major or in the Lyman Briggs Forestry Coordinate Major.

Introduction to the power equipment commonly used in the field of Forestry. The course will focus on safety, operation, and maintenance.

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

## MSU COLLEGE OF LAW

LAW 512N International Alternative Dispute Resolution

Summer of every year. 0 to 6 credits. R: Open to Law students or master of laws students or law lifelong students or law non-degree students.

REINSTATEMENT Law and procedure of international alternative dispute resolution, with a focus on alternative dispute resolution in the European Union and its similarities with United States alternative dispute resolution law.

Effective Summer Semester 2023

LAW 545C Constitutional Law of the European Union

Fall of every year. Spring of every year. Summer of every year. 0 to 6 credits. R: Open to Law students or master's of law students or law lifelong students or law non degree students.

REINSTATEMENT Introduction to the evolution of the European Communities and European Union.

Effective Summer Semester 2023

LAW 545J Political Systems and Human Rights in Central and Eastern Europe

Fall of every year. Spring of every year. 0 to 6 credits. R: Open to Law students or master of laws students or law lifelong students or law non-degree students.

REINSTATEMENT Political systems in countries where human rights are not respected.

Effective Summer Semester 2023

LAW 579W Rule of Law and Jurisprudence

Fall of every year. Spring of every year. Summer of every year. 0 to 4 credits. R: Open to Law students or master's of law students or law lifelong students or law non degree students.

REINSTATEMENT Focus on rule of law concepts. Examines the judicial decision-making process.

Effective Summer Semester 2023

## DEPARTMENT OF MECHANICAL ENGINEERING

ME 496 Biomechanical Analysis of Human Movement

Fall of even years. 3(3-0) P: ME 470 or concurrently

Experimental and analysis methods used in biomechanics of human movement. Signal processing. Kinematics. Kinetics. Electromyography. Modeling. Computer programming. Effective Fall Semester 2023

## COLLEGE OF MUSIC

MUS 214 Introduction to Music Studies

Fall of every year. Spring of every year. 4(4-0) R: Open to undergraduate students in the College of Music.

Study of music in its historical, social, and cultural contexts. Effective Fall Semester 2023

MUS 497 Becoming a School Music Teacher

Fall of every year. Spring of every year. 3(3-0) R: Open to seniors in the College of Music or in the Music Education Major. Not open to students with credit in TE 496. C: MUS 495 concurrently.

Teachers’ professional and ethical responsibilities. Relations of teachers to colleagues, families, social service providers and community leaders. Teacher’s role in school governance and accountability.

Effective Fall Semester 2023

## SCHOOL OF PLANNING, DESIGN AND CONSTRUCTION

CMP 475 Practical Experiences in Construction Management

Fall of every year. 3(1-4) R: Open to juniors or seniors in the Construction Management Major or approval of school.

Hands-on experience with construction execution of residential and commercial materials, systems, and methods.

Effective Fall Semester 2023

## DEPARTMENT OF RELIGIOUS STUDIES

REL 385 Religion, Health, and Healthcare

Fall of every year. 3(3-0)

REINSTATEMENT Religion, health, and illness, and responses to them in health care professions, faith communities, and the broader society. Topics may include religion and interpretations of embodiment or suffering; challenges of religious diversity to health care professionals; and the “religiosity” of secular science, medicine, and public health, which are partially shaped by their own myths, rituals, and symbols.

Effective Fall Semester 2023

## DEPARTMENT OF TEACHER EDUCATION

TE 202 Engaging Elementary Learners with Mathematics

Fall of every year. Spring of every year. Summer of every year. 3(3-1) P: MTH 201

Math curriculum standards for grades PK-6. Building positive math identities in diverse learners. Eliciting children’s mathematical thinking. Pedagogical practices for small- and whole-group math activities.

Effective Fall Semester 2023

TE 204 Engaging Elementary Learners in Science: Culture and Equity

Fall of every year. Spring of every year. Summer of every year. 3(3-1)

Science curriculum standards for grades 3-6. Culture and equity in science. Eliciting children and community interests and resources. Building positive science identities for diverse learners in classrooms.

Effective Fall Semester 2023

TE 301A Children’s Literacy Development PK-3 (W)

Fall of every year. Spring of every year. Summer of every year. 3(3-1) P: (TE 102) and completion of Tier I writing requirement R: Open to students in the Elementary Teacher Certification Program (Admitted).

Children’s development in motivation and engagement, phonological awareness, phonics, spelling, word recognition, morphology, syntax, reading fluency, handwriting, comprehension, composition, and speaking and listening. Formative assessment tools in and out of school.

Effective Fall Semester 2023

TE 301B Children’s Literacy Development 3-6 (W)

Fall of every year. Spring of every year. Summer of every year. 3(3-1) P: (TE 102) and completion of Tier I writing requirement R: Open to students in the Elementary Teacher Certification Program (Admitted).

Children’s development in motivation and engagement, phonological awareness, phonics, spelling, word recognition, morphology, syntax, reading fluency, handwriting, comprehension, composition, and speaking and listening. Formative assessment tools in and out of school.

Effective Fall Semester 2023

TE 310 Clinical Experience in English Education I

Spring of every year. Lansing 3(2-4) P: TE 102 and TE 150 R: Not open to freshmen or sophomores. Not open to students with credit in TE 407.

Directed and evaluated placement in a secondary English classroom and learning space. Forming respectful relationships with students in English language arts classrooms and learning spaces. Using assessment techniques to understand learner needs. Adapting curriculum and instruction to diverse learners. Exploration of common teaching dilemmas. Effective Spring Semester 2024

TE 314 Clinical Experiences in Mathematics Education I

Spring of every year. 3(2-4) P: TE 102 and TE 150 R: Not open to freshmen or sophomores. Not open to students with credit in TE 407.

Directed and evaluated placement in a freshman-level (prior to Calculus) university mathematics classroom. Forming respectful relationships with students in mathematics classrooms. Using formative assessment techniques to understand learner needs.

Adapting curriculum and instruction to diverse learners. Exploration of common teaching dilemmas.

Effective Spring Semester 2024

TE 321 Clinical Experience in Science Education I

Spring of every year. Lansing 3(2-4) P: TE 102 and TE 150 R: Not open to freshmen or sophomores. Not open to students with credit in TE 407.

Directed and evaluated placement in a secondary science classroom. Forming respectful relationships with students in science classrooms. Using assessment techniques to understand learner needs. Adapting curriculum and instruction to diverse learners.

Exploration of common teaching dilemmas. Effective Spring Semester 2024

TE 325 Clinical Experience in Social Studies Education I

Spring of every year. Lansing 3(2-4) P: TE 102 and TE 150 R: Not open to freshmen or sophomores. Not open to students with credit in TE 407.

Directed and evaluated placement in a secondary social studies classroom. Forming respectful relationships with students in social studies classrooms. Using assessment techniques to understand learner needs. Adapting curriculum and instruction to diverse learners. Exploration of common teaching dilemmas.

Effective Spring Semester 2024

TE 331 Social Studies for Young Learners (PK-3)

Fall of every year. Spring of every year. Summer of every year. 3(3-2) R: Open to students in the Elementary Teacher Certification Program (Admitted).

History, geography, civics and government, economics, public discourse, decision-making, and citizen involvement; emphasizing PK-3 social studies content, including Michigan, United States, and Global Studies.

Effective Fall Semester 2023

TE 334 Clinical Experiences in World Language Education I

Spring of every year. Lansing 3(2-4) P: TE 102 and TE 150 R: Not open to freshmen or sophomores. Not open to students with credit in TE 407.

Directed and evaluated placement in a secondary world language classroom. Forming respectful relationships with students in world language classrooms. Using assessment techniques to understand learner needs. Adapting curriculum and instruction to diverse learners. Exploration of common teaching dilemmas.

Effective Spring Semester 2024

TE 340 Teaching and Learning of Elementary Science (PK-6)

Fall of every year. Spring of every year. Summer of every year. 3(3-1) P: TE 330 or TE 332 RB: Completion of an ISP or ISB course or ISP or ISP laboratory course

Engaging diverse learners in grades PK-6 to make sense of the natural world. Lesson planning. Designing and using formative assessment and discourse strategies to learn about children’s ideas and resources for learning science. Supporting children’s sense- making about phenomena through engagement in scientific practices and using disciplinary ideas.

Effective Fall Semester 2023

TE 343 Teaching and Learning of Elementary Social Studies (PK-6)

Fall of every year. Spring of every year. Summer of every year. 3(3-1) P: TE 331 or TE 333 Equitable social studies instruction in grades Pk-6. Lesson planning, assessment, teaching, and learning in grades PK-6 social studies.

Effective Fall Semester 2023

TE 403A Teaching of Science to Diverse Learners PK-3

Fall of every year. Spring of every year. 3(3-2) P: TE 330

Engaging diverse learners in grades PK-3 to make sense of the natural world. Lesson planning. Designing and using formative assessment and discourse strategies to learn about children’s ideas and resources for learning science. Supporting children’s sense- making about phenomena through engagement in scientific practices and using disciplinary ideas.

Effective Fall Semester 2024

TE 403B Teaching of Science to Diverse Learners 3-6

Fall of every year. Spring of every year. 3(3-2) P: TE 332

Engaging diverse learners in grades 3-6 to make sense of the natural world. Lesson planning. Designing and using formative assessment and discourse strategies to learn about children’s ideas and resources for learning science. Supporting children’s sense- making about phenomena through engagement in scientific practices and using disciplinary ideas.

Effective Fall Semester 2024

TE 404A Teaching of Social Studies to Diverse Learners PK-3 (W)

Fall of every year. Spring of every year. 3(3-2) P: (TE 331) and completion of Tier I writing requirement

Teaching social studies to diverse learners at the elementary level (PK-3). Inquiry into and construction of subject-specific meaning. Social studies subject matter adapted to learner diversity. Teachers’ roles, including professional, intellectual, and sociopolitical responsibilities.

Effective Fall Semester 2024

TE 404B Teaching of Social Studies to Diverse Learners 3-6 (W)

Fall of every year. Spring of every year. 3(3-2) P: (TE 333) and completion of Tier I writing requirement

Teaching social studies to diverse learners at the elementary level (3-6). Inquiry into and construction of subject-specific meaning. Social studies subject matter adapted to learner diversity. Teachers’ roles, including professional, intellectual, and sociopolitical responsibilities.

Effective Fall Semester 2024

TE 405C Teaching Literacy to Diverse Learners II (3-6)

Fall of every year. Spring of every year. 3(3-2) P: TE 405

Equitable literacy instruction in grades 3-6. Lesson planning, assessment, teaching, and learning in 3-6 literacy.

Effective Fall Semester 2024

TE 406C Teaching Mathematics to Diverse Learners II (3-6)

Fall of every year. Spring of every year. 3(3-2) P: TE 406

Equitable mathematics instruction in grades 3-6. Lesson planning, assessment, teaching, and learning in grades 3-6 mathematics.

Effective Fall Semester 2024

TE 410 Clinical Experience in English Education II

Fall of every year. 3(2-4) P: TE 310 R: Not open to freshmen or sophomores. Not open to students with credit in TE 408 or TE 501. C: TE 411 concurrently.

Directed and evaluated placement in a secondary English classroom. Forming respectful relationships with students. Refinement of diverse instructional strategies. Co-teaching worthwhile content to students with varied learning needs. Exploration of common teaching dilemmas.

Effective Fall Semester 2024

TE 411 Seminar in English Education I

Fall of every year. 3(3-0) P: TE 310 R: Not open to freshmen or sophomores. Not open to students with credit in TE 407 or TE 408. C: TE 410 concurrently.

Examining teaching as enabling diverse learners to create understanding, meaning, and purpose by engagement with the English language arts curriculum at the secondary level (7-12). Review of English language arts curriculum. Methods for lesson and unit planning. Adapting the English curriculum to learner diversity.

Effective Fall Semester 2024

TE 412 Seminar in English Education II

Spring of every year. 3(3-0) P: TE 410 and TE 411 R: Not open to freshmen or sophomores. Not open to students with credit in TE 802 or TE 804. C: TE 413 concurrently.

Reflection on classroom teaching practice. Formation of professional learning communities devoted to collecting, analyzing, and interpreting data on English language arts teaching and learning. Dilemmas surrounding English language arts teaching practice.

Effective Spring Semester 2025

TE 413 Student Teaching Internship in English Education

Spring of every year. 6(5-25) P: TE 410 and TE 411 R: Not open to freshmen or sophomores. Not open to students with credit in TE 502. C: TE 412 concurrently.

Directed and evaluated internship in a secondary English language arts classroom. Increased emphasis on independent teaching. Maintaining classroom communities that ensure equitable access to important knowledge and skills. Assessing academic and social outcomes.

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

TE 414 Clinical Experiences in Mathematics Education II

Fall of every year. 3(2-4) P: TE 314 R: Not open to freshmen or sophomores. Not open to students with credit in TE 408 or TE 501. C: TE 415 concurrently.

Directed and evaluated placement in a secondary mathematics classroom. Forming respectful relationships with students. Refinement of diverse instructional strategies. Co- teaching worthwhile content to students with varied learning needs. Exploration of common teaching dilemmas.

Effective Fall Semester 2024

TE 415 Seminar in Mathematics Education I

Fall of every year. 3(3-0) P: TE 314 R: Not open to freshmen or sophomores. Not open to students with credit in TE 407 or TE 408. C: TE 414 concurrently.

Examining teaching as enabling diverse learners to create understanding, meaning, and purpose by engagement with the mathematics curriculum at the secondary level (7-12). Review of mathematics curriculum. Methods for lesson and unit planning. Adapting the mathematics curriculum to learner diversity.

Effective Fall Semester 2024

TE 416 Seminar in Mathematics Education II

Spring of every year. 3(3-0) P: TE 414 and TE 415 R: Not open to freshmen or sophomores. Not open to students with credit in TE 802 or TE 804. C: TE 417 concurrently.

Reflection on classroom teaching practice. Formation of professional learning communities devoted to collecting, analyzing, and interpreting data on mathematics teaching and learning. Dilemmas surrounding mathematics teaching practice.

Effective Spring Semester 2025

TE 417 Student Teaching Internship in Mathematics Education

Spring of every year. 6(5-25) P: TE 414 and TE 415 R: Not open to freshmen or sophomores. Not open to students with credit in TE 502. C: TE 416 concurrently.

Directed and evaluated internship in a secondary mathematics classroom. Increased emphasis on independent teaching. Maintaining classroom communities that ensure equitable access to important knowledge and skills. Assessing academic and social outcomes.

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

TE 421 Clinical Experience in Science Education II

Fall of every year. 3(2-4) P: TE 321 R: Not open to freshmen or sophomores. Not open to students with credit in TE 408 or TE 501. C: TE 422 concurrently.

Directed and evaluated placement in a secondary science classroom. Forming respectful relationships with students. Refinement of diverse instructional strategies. Co-teaching worthwhile content to students with varied learning needs. Exploration of common teaching dilemmas.

Effective Fall Semester 2024

TE 422 Seminar in Science Education I

Fall of every year. 3(3-0) P: TE 321 R: Not open to freshmen or sophomores. Not open to students with credit in TE 407 or TE 408. C: TE 421 concurrently.

Examining teaching as enabling diverse learners to create understanding, meaning, and purpose by engagement with the science curriculum at the secondary level (7-12). Review of science curriculum. Methods for lesson and unit planning. Adapting the science curriculum to learner diversity.

Effective Fall Semester 2024

TE 423 Seminar in Science Education II

Spring of every year. 3(3-0) P: TE 421 and TE 422 R: Not open to freshmen or sophomores. Not open to students with credit in TE 802 or TE 804. C: TE 424 concurrently.

Reflection on classroom teaching practice. Formation of professional learning communities devoted to collecting, analyzing, and interpreting data on science teaching and learning.

Dilemmas surrounding science teaching practice. Effective Spring Semester 2025

TE 424 Student Teaching Internship in Science Education

Spring of every year. 6(5-25) P: TE 421 and TE 422 R: Not open to freshmen or sophomores. Not open to students with credit in TE 502. C: TE 423 concurrently.

Directed and evaluated internship in a secondary science classroom. Increased emphasis on independent teaching. Maintaining classroom communities that ensure equitable access to important knowledge and skills. Assessing academic and social outcomes.

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

TE 425 Clinical Experience in Social Studies Education II

Fall of every year. 3(2-4) P: TE 325 R: Not open to freshmen or sophomores. Not open to students with credit in TE 408 or TE 501. C: TE 426 concurrently.

Directed and evaluated placement in a secondary social studies classroom. Forming respectful relationships with students. Refinement of diverse instructional strategies. Co- teaching worthwhile content to students with varied learning needs. Exploration of common teaching dilemmas.

Effective Fall Semester 2024

TE 426 Seminar in Social Studies Education I

Fall of every year. 3(3-0) P: TE 325 R: Not open to freshmen or sophomores. Not open to students with credit in TE 407 or TE 408. C: TE 425 concurrently.

Examining teaching as enabling diverse learners to create understanding, meaning, and purpose by engagement with the social studies curriculum at the secondary level (7-12). Review of social studies curriculum. Methods for lesson and unit planning. Adapting the social studies curriculum to learner diversity.

Effective Fall Semester 2024

TE 427 Seminar in Social Studies Education II

Spring of every year. 3(3-0) P: TE 425 and TE 426 R: Not open to freshmen or sophomores. Not open to students with credit in TE 802 or TE 804. C: TE 428 concurrently.

Reflection on classroom teaching practice. Formation of professional learning communities devoted to collecting, analyzing, and interpreting data on social studies teaching and learning. Dilemmas surrounding social studies teaching practice.

Effective Spring Semester 2025

TE 428 Student Teaching Internship in Social Studies Education

Spring of every year. 6(5-25) P: TE 425 and TE 426 R: Not open to freshmen or sophomores. Not open to students with credit in TE 502. C: TE 427 concurrently.

Directed and evaluated internship in a secondary social studies classroom. Increased emphasis on independent teaching. Maintaining classroom communities that ensure equitable access to important knowledge and skills. Assessing academic and social outcomes.

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

TE 434 Clinical Experiences in World Language Education II

Fall of every year. 3(2-4) P: TE 334 R: Not open to freshmen or sophomores. Not open to students with credit in TE 408 or TE 502. C: TE 435 concurrently.

Directed and evaluated placement in a secondary world language classroom. Forming respectful relationships with students. Refinement of diverse instructional strategies. Co- teaching worthwhile content to students with varied learning needs. Exploration of common teaching dilemmas.

Effective Fall Semester 2024

TE 435 Seminar in World Language Education I

Fall of every year. 3(3-0) P: TE 334 R: Not open to freshmen or sophomores. Not open to students with credit in TE 407 or TE 408. C: TE 434 concurrently.

Examining teaching as enabling diverse learners to create understanding, meaning, and purpose by engagement with the world languages curriculum at the secondary level (7-12). Review of world languages curriculum. Methods for lesson and unit planning.

Understanding the interrelatedness of language and culture. Adapting the world languages curriculum to learner diversity.

Effective Fall Semester 2024

TE 436 Seminar in World Language Education II

Spring of every year. 3(3-0) P: TE 434 and TE 435 R: Not open to freshmen or sophomores. Not open to students with credit in TE 802 or TE 804. C: TE 437 concurrently.

Reflection on classroom teaching practice. Formation of professional learning communities devoted to collecting, analyzing, and interpreting data on language teaching and learning. Dilemmas surrounding world language teaching practice.

Effective Spring Semester 2025

TE 437 Student Teaching Internship in World Language Education

Spring of every year. Lansing 6(5-25) P: TE 434 and TE 435 R: Not open to freshmen or sophomores. Not open to students with credit in TE 502. C: TE 436 concurrently.

Directed and evaluated internship in a secondary world language classroom. Increased emphasis on independent teaching. Maintaining classroom communities that ensure equitable access to important knowledge and skills. Assessing academic and social outcomes.

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

TE 481 PK-3 Internship I

Fall of every year. 3 to 6 credits. R: Open to students in the Elementary Teacher Certification Program (Admitted).

Directed and evaluated internship in PK3 classrooms. Teaching content to students with varied learning needs. Theoretical and field-based explorations of common teaching dilemmas.

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

TE 482 PK-3 Internship II

Spring of every year. 3 to 6 credits. R: Open to students in the Elementary Teacher Certification Program (Admitted).

Directed and evaluated internship in PK3 classrooms. Teaching content to students with varied learning needs. Theoretical and field-based explorations of common teaching dilemmas.

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

TE 484 3-6 Internship I

Fall of every year. 3 to 6 credits. R: Open to students in the Elementary Teacher Certification Program (Admitted).

Directed and evaluated internship in 3-6 classrooms. Teaching content to students with varied learning needs. Theoretical and field-based explorations of common teaching dilemmas.

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

TE 485 3-6 Internship II

Spring of every year. 3 to 6 credits. R: Open to students in the Elementary Teacher Certification Program (Admitted).

Directed and evaluated internship in 3-6 classrooms. Teaching content to students with varied learning needs. Theoretical and field-based explorations of common teaching dilemmas.

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

# PART III – COURSE CHANGES

## DEPARTMENT OF ART, ART HISTORY AND DESIGN

HA 230 Renaissance and Baroque Art Spring of every year. 3(3-0)

Arts of the Renaissance and Baroque periods (14th-17th centuries) in Europe: Early and High Renaissance in Italy, Northern Renaissance, Mannerism and Baroque.

DELETE COURSE

Effective Summer Semester 2023

HA 430 Selected Topics in Baroque Art

Fall of every year. Spring of every year. 4(4-0) A student may earn a maximum of 8 credits in all enrollments for this course. P: (HA 102 or HA 230) and completion of Tier I writing requirement

Selected issues in the study of Baroque Art. Extensive experience with museum collections.

DELETE COURSE

Effective Fall Semester 2023

HA 453 American Art, 1875-1940

Fall of even years. 4(4-0) P: (HA 102 or HA 250) and completion of Tier I writing requirement Artistic production in North America from 1875 to 1940, in its cultural context.

DELETE COURSE

Effective Fall Semester 2023

## DEPARTMENT OF CHEMISTRY

CEM 143 Survey of Organic Chemistry

Fall of every year. Spring of every year. Summer of every year. 4(3-3) P: CEM 141 or CEM 151 or CEM 181H or LB 171 Not op~~e~~n ~~t~~o stude~~nt~~s ~~wit~~h cred~~i~~t ~~i~~n CEM 351. Not open to students with credit in CEM 351 or CEM 144 or CEM 251 or LB 271.

~~Chemistr~~y ~~o~~f carbon compou~~nds~~. Chem~~istr~~y ~~o~~f ~~th~~e ~~mai~~n organ~~i~~c functional grou~~p~~s with applicati~~on~~s ~~t~~o everyd~~a~~y ~~life~~, i~~ndustry~~, ~~an~~d biolog~~y~~. Survey of the main organic functional groups with applications to everyday life, industry, and biology and laboratory to highlight important organic laboratory techniques.

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

## DEPARTMENT OF COUNSELING, EDUCATIONAL PSYCHOLOGY AND SPECIAL EDUCATION

CEP 240 ~~Divers~~e Learne~~r~~s ~~i~~n Multicultural Perspective Introduction to Exceptional Learners

Fall of every year. Spring of every year. Summer of every year. 3(3-0) ~~R~~: ~~Ope~~n ~~t~~o undergraduate students in the Department of Communicative Sciences and Disorders or in the Kinesiology major or in the Special Education-Learning Disabilities Major and open to undergraduate students in the Educati~~o~~n Major ~~o~~r ~~i~~n ~~th~~e Child Developm~~en~~t Ma~~jo~~r ~~o~~r ~~i~~n ~~th~~e ~~Elementar~~y Te~~ache~~r Certification ~~Progra~~m (Admi~~tted~~) ~~o~~r ~~i~~n Seco~~ndar~~y Teac~~he~~r Certificati~~o~~n Pr~~ogra~~m (Admitted).

Communicative, lingu~~istic~~, ph~~ysical~~, sensory, behavio~~ral~~, af~~fective~~, ~~an~~d cognitive differenc~~e~~s ~~i~~n learni~~n~~g in multicultural classroo~~ms~~. Fa~~ctor~~s ~~tha~~t medi~~at~~e ac~~ces~~s to knowled~~ge~~. Discusses the disabilities covered under the special education law (IDEA) and how to support students in the diverse classes

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

CEP 301 ~~Literac~~y Instruct~~io~~n ~~fo~~r Stude~~nt~~s Wi~~t~~h ~~Mil~~d Impairme~~nt~~s (W) Literacy Instruction for Students With Disabilities (W)

Fall of every year. ~~Sprin~~g ~~o~~f ev~~er~~y year. 3(3-1) ~~P~~: ~~(CE~~P ~~449~~) ~~an~~d completi~~o~~n ~~o~~f Ti~~e~~r I writing requirement P: (CEP 240) and completion of Tier I writing requirement ~~R~~: ~~Ope~~n ~~t~~o ju~~nior~~s or seni~~or~~s ~~i~~n ~~th~~e Special Education-Learning Disabili~~tie~~s Ma~~jo~~r ~~an~~d op~~e~~n ~~t~~o gradu~~at~~e stude~~nt~~s ~~i~~n the Special Educat~~io~~n Major. R: Open to undergraduate students in the Special Education-Learning Disabilities Major. ~~C~~: ~~T~~E ~~30~~1 concurrently.

Reading and wr~~itin~~g instruction ~~fo~~r struggling learne~~rs~~. Char~~acteristic~~s ~~o~~f lit~~erac~~y problems ~~in students with mild impairments. Adaptation for teaching reading and writing.~~ Reading and writing instruction for students at-risk of meeting grade level proficiency, students with dyslexia and other oral and written language disabilities.

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

~~CE~~P 452

CEP 302 ~~Assistiv~~e Technol~~og~~y ~~fo~~r Stud~~ent~~s ~~wit~~h Disabilities

Technology and Content Area Supports for Students with Disabilities

Fa~~l~~l ~~o~~f ~~ever~~y year. Spring of every year. 3(3-0) 2(2-0) ~~P~~: ~~CE~~P ~~24~~0 and CEP 451 P: CEP 240 R: ~~Ope~~n ~~t~~o stude~~nt~~s ~~i~~n ~~th~~e Spec~~ia~~l Education-Learni~~n~~g Disabili~~tie~~s Major. R: Open to undergraduate students in the Special Education-Learning Disabilities Major.

Assistive technology for advancing educational outcomes in PK-12 students with disabilities; applications of technology to compensate for disabilities and improve educatio~~nal~~, so~~cial~~, and behav~~iora~~l competenc~~es~~. Assistive technology for advancing educational outcomes in PK-12 students with disabilities, applications of technology to compensate for disabilities and improve competences. Content area supports and strategies for students with disabilities.

SA: CEP 452

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

~~CE~~P 449

CEP 349 Behavior Management in Special Education

Spring of every year. 3(3-0) 3(3-1) P: CEP 240 R: Open to undergraduate students in the Special Education-Learning Disabilities Major.

Management practices for behavior problems and disorders. Applied behavior analysis, social skills acquisition through cooperative learning and cooperative discipline. Focus on problem-solving and peer collaboration.

~~SA~~: ~~CE~~P 849 SA: CEP 449

~~Effectiv~~e Spring ~~Semeste~~r 2014 Effective Spring Semester 2024

~~CE~~P 451

CEP 351 Mode~~l~~s ~~o~~f Spec~~ia~~l Education Administra~~tio~~n ~~an~~d Services Special Education Law and Policies

Fa~~l~~l ~~o~~f ~~ever~~y year. Spring of every year. Summer of every year. 3(3-1) P: CEP 240 ~~RB~~: Admission ~~into the teacher certification program in learning disabilities. R: Open to undergraduate students in~~ ~~th~~e Special Education-Learni~~n~~g Disabi~~litie~~s major. R: Open to undergraduate students in the Special Education-Learning Disabilities Major and open to undergraduate students in the Early Childhood Elementary Teaching Major.

Application ~~o~~f ~~theor~~y a~~n~~d rese~~arc~~h ~~t~~o special education prog~~ra~~m desi~~g~~n and implementation. Discussion of laws and policies that impact the education and educational services for students with disabilities in educational settings.

SA: CEP 451

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

~~CE~~P 804A

CEP 404 ~~Literac~~y Instruct~~io~~n ~~fo~~r Stude~~nt~~s ~~wit~~h ~~Mil~~d Disabilities Literacy Interventions for Students with Disabilities

Fa~~l~~l ~~o~~f ~~ever~~y year. Spring of every year. 3(2-3) 3(3-2) ~~RB~~: ~~(CE~~P ~~840~~) and Admission ~~int~~o the Special Educat~~io~~n program. RB: CEP 840 ~~R~~: ~~Ope~~n ~~t~~o stude~~nt~~s ~~i~~n ~~th~~e Spec~~ia~~l Education-Learning Disabilities major and open to master’s students in the Special Education major and open to grad~~uat~~e studen~~t~~s ~~i~~n ~~th~~e Educ~~atio~~n major. R: Open to undergraduate students in the Special Education-Learning Disabilities Major.

Methods for teaching literacy to students with mild disabilities. Collecting, analyzing, and interpreting data related to the teaching and programming of literacy instruction.

SA: CEP 804A

~~Effectiv~~e ~~Summe~~r ~~Semeste~~r 2011 Effective Spring Semester 2025

~~CE~~P 502A

CEP 405 ~~Internshi~~p ~~i~~n ~~Teachin~~g Diverse Lear~~ner~~s ~~II~~: ~~Learnin~~g Disabilities Internship in Teaching Special Education

Fall of every year. Spring of every year. 6(2-24) P: CEP 351 and CEP 301 and CEP 339 and CEP 349 ~~RB: (CEP 801A and CEP 802A and TE 501) R: Open only to students in the Specia~~l Education-Learning Disabilities major or to master’s students in the Special Education major. R: Open to undergraduate students in the Special Education-Learning Disabilities Major. ~~No~~t ~~ope~~n to students with credit in or CEP 502C or CEP 893F. C: CEP 803C concurrently and CEP 804C concurrently.

Internship in heterogeneous classrooms. Increased emphasis on independent teaching. Teaching students with learning disabilities in classroom communities that ensure equitable access to important knowledge and skills. Assessing academic and social outcomes.

Request the use of the Pass-No Grade (P-N) system. SA: CEP 502A

~~Effectiv~~e ~~Summe~~r ~~Semeste~~r 2006 Effective Fall Semester 2024

CEP 801A Collaboration and Consultation in Special Education

Fa~~l~~l ~~o~~f ~~ever~~y year. Spring of every year. 3(3-2) ~~RB~~: ~~CE~~P 840 R: Open to students in the Special Education-Learning Disabilities Major and open to graduate students in the Special Education Major and open to graduate students in the Education Major.

Professional and ethical responsibilities. Models and methods of collaboration with teachers, parents, and community agencies to foster learning for students with disabilities. Advocacy for students with disabilities in school and community settings.

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

CEP 803A Assessment of Students with Mild Disabilities

Fall of every year. 3(2-3) 3(3-2) ~~RB~~: Admission ~~int~~o ~~th~~e Spec~~ia~~l Education program R: Open to students in the Special Education-Learning Disabilities major and open to graduate students in the Special Education major and open to students in the Educational Specialist in School Psychology major.

Informal and formal assessment methods for planning and evaluating instruction and for classifying and placing students with mild disabilities. Engaging with families to improve responsiveness to the assessment.

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

## DEPARTMENT OF EDUCATIONAL ADMINISTRATION

EAD 893 Professional Development Seminar in Student Affairs

Fall of every year. Spring of every year. Summer of every year. 1(1-0) 3(0-3) A ~~studen~~t ~~ma~~y ~~ear~~n a ~~maximu~~m ~~o~~f 4 ~~credit~~s ~~i~~n a~~l~~l enrollmen~~t~~s ~~fo~~r ~~thi~~s course. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open to students in the Student Affairs Administration Major.

Supervised work experience in student affairs. Request the use of the Pass-No Grade (P-N) system. Request the use of ET-Extension to postpone grading.

The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.

~~SA~~: ~~EA~~D 894A

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2010 Effective Fall Semester 2023

## COLLEGE OF ENGINEERING

EGR 840 Engineering Entrepreneurship

Science and Engineering Entrepreneurship

Fall of every year. 3(3-0) ~~R~~: ~~Ope~~n ~~t~~o gradua~~t~~e st~~udent~~s in ~~th~~e College ~~o~~f Engineering. R: Open to graduate students in the College of Engineering or in the College of Natural Science.

Technical skills to enable and engage in engineering related entrepreneurship at all levels. Discovery, evaluation, and engagement of entrepreneurial opportunities starting with technology development to solve a problem, bring about desired change that is scalable, and the application of engineering principles in business related endeavors.

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2017 Effective Fall Semester 2023

## DEPARTMENT OF GEOGRAPHY, ENVIRONMENT, AND SPATIAL SCIENCES

GEO 206L Physical Geography Laboratory

Fall of every year. ~~Sprin~~g ~~o~~f ev~~er~~y year. ~~1(0-2)~~ 2(0-2) P: GEO 113 or GEO 151 or GEO 203 or GEO 204 or (GEO 206 or concurrently) or GEO 208 or GEO 211 or GEO 215 or GEO 221

Geographic aspects of weather, climate, soil, vegetation, and terrain. Interpretation and application of maps and remotely sensed imagery.

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2017 Effective Fall Semester 2023

GEO 306 Environmental Geomorphology

Fa~~l~~l ~~o~~f ~~eve~~n years. Spring of even years. 3(3-0) Interdepartmental with Geological Sciences. P: CSS 210 or GEO 206 or GEO 333 or GLG 201 or GLG 304 or ISP 203A

Relationships of running water, weathering, gravity, ice, waves, wind, and biota (including humans) to terrain and soils. Evolution of landscapes. Classical and modern interpretations.

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2017 Effective Spring Semester 2024

## DEPARTMENT OF HORTICULTURE

HRT 812 Laboratory Research Techniques

Fa~~l~~l ~~o~~f ~~eve~~n years. Fall of odd years. 2(1-3) R: Open to graduate students in the Department of Horticulture.

Demonstration and experience using various research techniques. ~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2019 Effective Fall Semester 2022

## CENTER FOR INTEGRATIVE STUDIES IN SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES

ISS 308 Social Science Approaches to Law (D)

Spring of every year. 4(4-0) ~~P~~: ~~IS~~S ~~21~~0 ~~o~~r ~~IS~~S ~~21~~5 ~~o~~r ~~IS~~S 2~~2~~0 ~~o~~r ~~IS~~S ~~22~~5 ~~o~~r ~~IS~~S ~~23~~0 ~~o~~r ~~IS~~S ~~23~~5 or ~~M~~C 201 P: ISS 210 or ISS 215 or ISS 220 or ISS 225 or ISS 230 or ISS 235 or MC 201 or ISS 205

R: Open to sophomores or juniors or seniors.

Law theories, practices, methodologies. Social, cultural, institutional, global, environmental, family, or historical context.

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

## SCHOOL OF JOURNALISM

DS 442B Multicam Production for Sports (W)

Fall of every year. Spring of every year. 3(2-2) ~~P~~: ~~(D~~S ~~242~~) ~~an~~d Completi~~o~~n ~~o~~f Ti~~e~~r I Writing Requirement P: (DS 242 or approval of school) and completion of Tier I writing requirement

Produce live sporting events, halftime features, pregame and post-game analysis and other sports related content. Emphasis on technical perspective. Sportscast directing, technical directing, graphics, audio, cameras, video playback/replay, chroma key, remote live feed intake, editing, and creative camera shots. Announcing and sideline reporting.

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

DS 442C Multicam Production for News (W)

Fall of every year. Spring of every year. 3(2-2) ~~P~~: ~~(D~~S ~~242~~) ~~an~~d Completi~~o~~n ~~o~~f Ti~~e~~r I Writing Requirement P: (DS 242 or approval of school) and completion of Tier I writing requirement

Studio production for various news programs. Newscast directing, technical directing, floor directing, graphics, audio, cameras, video playback, teleprompter, chroma key, remote live feed intake, editing, set design, lighting, and creative camera shots. News programs include newscasts, interview programs, remote live events; programming MSU-TV. ~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2022 Effective Fall Semester 2023

JRN 406A Broadcast News III: Advanced Reporting

Fall of every year. Spring of every year. 3(2-2) 4(0-8) A stud~~en~~t ~~ma~~y ~~ear~~n a ~~maximu~~m ~~o~~f 6 ~~credit~~s in ~~al~~l enroll~~ment~~s ~~fo~~r ~~thi~~s course. A student may earn a maximum of 12 credits in all enrollments for this course. ~~P~~: ~~JR~~N 403 ~~o~~r approval ~~o~~f department P: JRN 403 ~~R~~: Approv~~a~~l ~~o~~f department. R: A student may earn a maximum of 12 credits JRN 406A and 406B

Announcing and reporting for broadcast news. Honing skills in video, audio, broadcast writing, news storytelling, interviewing and reporting. Develop social media strategies for journalism content and create a professional portfolio for future employers.

SA: JRN 406

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

JRN 406B Broadcast News Producing

Fall of every year. Spring of every year. 3(0-6) 4(0-8) A stud~~en~~t ~~ma~~y ~~ear~~n a ~~maximu~~m ~~o~~f 6 ~~credit~~s in ~~al~~l enroll~~ment~~s ~~fo~~r ~~thi~~s course. A student may earn a maximum of 12 credits in all enrollments for this course. ~~R~~: Approv~~a~~l ~~o~~f department. R: Approval of department. A student may earn a maximum of 12 credits JRN 406A and 406B.

Work behind the scenes to produce the weekly award-winning student newscast, "Focal Point." Put together a newscast rundown, write for newscasts, run social media feeds, post content to digital platforms and work with reporters and anchors as part of a team. ~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2022 Effective Fall Semester 2023

## MSU COLLEGE OF LAW

LAW 533Y Trademark Counterfeiting: Legal Approaches to Protecting the Brand

On Demand. 0 to 6 credits. ~~P~~: ~~LA~~W ~~533~~N ~~o~~r ~~LA~~W 535D R: Open to Law students in the MSU College of Law.

Reactive and proactive legal approaches to combating trademark counterfeiting and brand protection in the U.S. and various global legal frameworks.

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

LAW 535V Brand Protection Practicum

On Demand. 0 to 6 credits. ~~P~~: ~~LA~~W ~~533~~N ~~o~~r LAW 535D R: Open to Law students or law advanced students.

Fundamentals of brand protection, including trademark registration, prosecution, enforcement, infringement, licensing, and overall business and marketing strategy. Effective Spring Semester 2023

## DEPARTMENT OF MANAGEMENT

MGT 801 Analyzing your Organization

Fall of every year. Spring of every year. Summer of every year. 1 to 2 credits. ~~P~~: ~~MG~~T 810 ~~o~~r MGT ~~82~~4 ~~R~~: Open ~~t~~o master's ~~student~~s ~~i~~n ~~th~~e ~~El~~i Br~~oa~~d College ~~o~~f Busine~~s~~s and T~~h~~e ~~El~~i Broad Graduate School ~~o~~f Managem~~en~~t and not ~~ope~~n ~~t~~o MBA students ~~i~~n ~~th~~e ~~El~~i Bro~~a~~d Colle~~g~~e ~~o~~f Busine~~s~~s and T~~h~~e ~~El~~i Broad ~~Graduat~~e Scho~~o~~l ~~o~~f Management. Not open to students with credit in PIM 801.

Analysis of the student's organization focusing on issues related to the management of people, group processes, and organizational design. Review of various aspects of their organizations' processes related to the management of people and suggest a plan for improving the effectiveness of those processes. Issues include motivation, diversity, leadership, group performance, and culture.

Request the use of the Pass-No Grade (P-N) system. Request the use of ET-Extension to postpone grading.

The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.

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

MGT 802 Strategic Analysis

Fall of every year. Spring of every year. Summer of every year. 1(1-0) ~~P~~: ~~MG~~T 856 R: Open to master's students in the Department of Management. Not open to students with credit in PIM 804.

Supervised analysis of the student's employing organization, focusing on interviewing the CEO or visible leader. Assessing the correspondence between the leader's vision and concepts presented in the program.

Request the use of the Pass-No Grade (P-N) system. Request the use of ET-Extension to postpone grading.

The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.

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

MGT 804 International Management

Fall of every year. Spring of every year. Summer of every year. 1 to 3 credits. ~~P~~: ~~MB~~A ~~82~~4 ~~o~~r (MGT ~~81~~0 ~~o~~r ~~MG~~T 824 ~~o~~r approval of department) R: Open to graduate students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of department.

Management challenges and roles in a multinational business. Strategic planning in global firms, managing people in international organizations, leadership, and the future of international management.

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

MGT 843 Innovation and Entrepreneurship

Fall of every year. Spring of every year. Summer of every year. 1 to 2 credits. ~~P~~: ~~MG~~T 850 R: Open to master's students in the Eli Broad College of Business and The Eli Broad Graduate School of Management and not open to MBA students in the Master of Business Administration in Business Administration or approval of department. Not open to students with credit in MGT 852 or PIM 832.

Managing innovation and launching a new business. ~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2022 Effective Fall Semester 2023

MGT 873 Strategic Decision Making

Fall of every year. Spring of every year. Summer of every year. 1 to 3 credits. ~~P~~: ~~MG~~T 850 R: Not open to master's students in the Eli Broad College of Business and The Eli Broad Graduate School of Management and not open to MBA students in the Master of Business Administration in Business Administration or approval of department.

Process of strategic decision-making. Identifying issues that impede or improve decision success. Contextual factors that influence the decision process.

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

## DEPARTMENT OF MATHEMATICS

MTH 317H Honors Linear Algebra

Fall of every year. Spring of every year. 4(5-0) P: MTH 133 or MTH 153H or LB 119 R: Open to students in the Honors College or approval of department. ~~No~~t open ~~t~~o ~~student~~s ~~wit~~h credit ~~i~~n MTH 309.

Systems of equations, matrix algebra, vector spaces, linear transformations, geometry of R^n, eigenvalues, eigenvectors, diagonalization, inner products. Emphasis on mathematical reasoning, proofs, and concepts.

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2017 Effective Fall Semester 2023

MTH 327H Honors Introduction to Analysis

Fall of every year. ~~Sprin~~g ~~o~~f ev~~er~~y year. 3(3-0) P: MTH 317H R: Approval of department.

Emphasis on foundations and metric topology. Convergence of sequence and series, continuity of functions. Differentiation and integration in one dimension.

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

MTH 340 Ordinary Differential Equations I

Fall of every year. Spring of every year. Summ~~e~~r ~~o~~f ~~ever~~y year. 3(3-0) P: (MTH 309 or MTH 317H) and (MTH 133 or MTH 153H or LB 119) Not open to students with credit in MTH 347H.

Techniques for solving differential equations, existence and uniqueness theorems, qualitative theory, Fourier series and applications.

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

MTH 425 Complex Analysis

Fa~~l~~l ~~o~~f ~~ever~~y year. Spring of every year. 3(3-0) P: MTH 320 Not open to students with credit in MTH 428h.

Analytic functions of a complex variable, Cauchy integral theorem, conformal maps, bilinear transformation, harmonic functions. Classification of singularities, residues, conformal mappings.

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

## COLLEGE OF NATURAL SCIENCE

NSC 844 Tools for Women in STEM

Spring of every year. 2(2-0) R: Open to graduate students in the College of Engineering or in the College of Natural Science. Approval of college.

Directed ~~a~~t gra~~duat~~e stu~~dent~~s t~~ha~~t ~~identif~~y ~~a~~s ~~female~~, considering a care~~e~~r ~~i~~n STEM. ~~Practica~~l tools hel~~pfu~~l ~~t~~o stude~~nt~~s ~~tha~~t ident~~if~~y ~~a~~s ~~wome~~n in advanc~~in~~g th~~ei~~r goa~~l~~s and mitigati~~n~~g ~~th~~e challen~~ge~~s ~~the~~y ~~ma~~y encounter. Directed at graduate students of all genders considering a career in STEM. Practical tools helpful to students in advancing their goals and mitigating the challenges they may encounter.

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

HBIO 497 Internship in Human Biology

Fall of every year. Spring of every year. Summer of every year. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P: Completion of Tier I Writing Requirement Not open to students with credit in NSC 493.

Practical experience applying human biology training outside the classroom setting. Request the use of the Pass-No Grade (P-N) system.

Request the use of ET-Extension to postpone grading.

The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.

SA: NSC 497

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

NEU 460 Current Approaches in Molecular and Cellular Neuroscience

Spring of every year. 3(3-0) ~~P~~: ~~(NE~~U ~~301~~) and ~~((PS~~L ~~31~~0 ~~o~~r concurr~~ently~~) or ~~(PS~~L ~~43~~1 or concurrently)) P: (NEU 301 and NEU 302) and ((PSL 310 or concurrently) or (PSL 431 or concurrently)) R: Open to undergraduate students in the Neuroscience Major. Open to students in the Lyman Briggs Neuroscience Coordinate Major.

Investigation of the molecular and cellular pathways that allow neurons to connect and communicate, including the latest tools and technologies used to understand how complex molecular machinery within neuronal membranes interact with electrical potentials.

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

## COLLEGE OF OSTEOPATHIC MEDICINE

OST 828 Global Health Capstone

Fall of every year. Spring of every year. Summer of every year. 3 credits. ~~R~~: ~~Ope~~n ~~t~~o master’s ~~student~~s ~~i~~n the Global Heal~~t~~h ~~Major~~. Approv~~a~~l ~~o~~f college. R: Open to master’s students. Approval of college.

Integration of knowledge, skills and competencies acquired in global health. Request the use of the Pass-No Grade (P-N) system.

Request the use of ET-Extension to postpone grading.

The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.

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

OST 830 Independent Study in Global Health

Fall of every year. Spring of every year. Summer of every year. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. ~~R~~: ~~Ope~~n ~~t~~o master’s ~~student~~s ~~i~~n the College ~~o~~f ~~Osteopathi~~c Medici~~n~~e ~~o~~r approval ~~o~~f college. R: Open to graduate students in the College of Osteopathic Medicine or in the Global Health Major or in the Global Health Graduate Certificate or approval of college.

Independent study in areas relevant to global health. Request the use of the Pass-No Grade (P-N) system. Request the use of ET-Extension to postpone grading.

The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.

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

OST 832 Independent Study in United States Health Systems On Demand. 1 to 3 credits.

Independent study in areas relevant to the United States Health Systems. Request the use of the Pass-No Grade (P-N) system.

Request the use of ET-Extension to postpone grading.

The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.

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

## SCHOOL OF PLANNING, DESIGN AND CONSTRUCTION

CMP 230 Utility Systems

Spring of every year. 4(4-0) 3(3-0) ~~P~~: ~~(CM~~P ~~21~~0 and ~~CM~~P 1~~24~~) and (MTH ~~12~~4 ~~o~~r MTH 132 ~~o~~r LB ~~118~~) a~~n~~d ~~(PH~~Y ~~18~~3 ~~o~~r ~~PH~~Y 2~~3~~1 ~~o~~r ~~PH~~Y 231C) P: CMP 124 and CMP 210 ~~R~~: ~~No~~t ~~ope~~n ~~t~~o seniors. R: Open to students in the Construction Management Major or approval of school.

Design and an~~alysi~~s ~~o~~f util~~it~~y ~~an~~d environmen~~ta~~l ~~system~~s ~~i~~n reside~~ntia~~l and commercial ~~constructio~~n ~~wit~~h a ~~focu~~s ~~o~~n ~~mechanical~~, ~~electrical~~, and ~~plumbin~~g systems Material, methods, and techniques associated with design, analysis, and installation of mechanical, electrical, and plumbing systems in residential and commercial construction.

SA: BCM 230

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

CMP 305 Site Construction and Measurement

Fall of every year. 3(2-2) P: CMP 210 ~~R~~: ~~Ope~~n ~~t~~o juni~~or~~s ~~o~~r ~~senior~~s in ~~th~~e Construction Management Major. R: Approval of school.

Site construction methods, materials and equipment for soils, foundations, foundation types, erosion and storm water control. Site layout, leveling, elevations, and underground utilities.

SA: BCM 305

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

CMP 322 Structural Systems

Fall of every year. 3(3-0) P: CMP 222 or CE 221 or ME 222 ~~R~~: ~~Ope~~n ~~t~~o juni~~or~~s ~~o~~r seni~~or~~s in the Constructi~~o~~n Management ma~~jo~~r ~~o~~r ~~i~~n ~~th~~e Ci~~vi~~l Engineering ~~Majo~~r ~~o~~r approv~~a~~l ~~o~~f school. R: Approval of school.

Structural design using wood, steel and concrete. Beams, columns, footings, and foundation walls. Loading, soils.

SA: BCM 322

~~Effectiv~~e ~~Summe~~r ~~Semeste~~r 2013 Effective Fall Semester 2023

CMP 325 Real Estate Principles and Construction Finance

Fall of every year. 4(4-0) 3(3-0) P: EC 201 or EC 202 or EC 251H or EC 252H ~~R~~: ~~Ope~~n ~~t~~o juni~~or~~s or seni~~or~~s ~~i~~n ~~th~~e Constructi~~o~~n Management Ma~~jo~~r ~~o~~r approval ~~o~~f department. R: Approval of school.

Financial methods and instruments utilized in construction, rehabilitation, development, and purchase of real estate. Terms, contracts, valuation, brokerage, taxation, risk, and interest rate analysis.

SA: BCM 325

~~Effectiv~~e ~~Summe~~r ~~Semeste~~r 2013 Effective Fall Semester 2023

CMP 328 Constructi~~o~~n Presentati~~o~~n Graph~~ic~~s and Building Information Modeling Building Information Modeling for Construction

Fall of every year. 2(1-2) 3(2-2) P: CMP 210 and CMP 230 ~~R~~: ~~Ope~~n ~~t~~o juni~~or~~s ~~o~~r seni~~or~~s in the Constructi~~o~~n Management Ma~~jo~~r ~~o~~r approval ~~o~~f department. R: Approval of school.

~~Graphi~~c communica~~tio~~n meth~~od~~s used ~~i~~n co~~nstructio~~n organizati~~ons~~. ~~Us~~e ~~o~~f Building ~~Informatio~~n Modeli~~n~~g software. Building Information Modeling (BIM) fundamentals and applications for modeling, management, and collaboration for construction projects.

SA: BCM 328

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2017 Effective Fall Semester 2023

## DEPARTMENT OF SOCIOLOGY

SOC 899 Master's Thesis Research

~~Fall of every year. Spring of every year. Summer of every year.~~ On Demand. 1 to 9 credits. A student may earn a maximum of 16 credits in all enrollments for this course.

Master's thesis research.

Request the use of the Pass-No Grade (P-N) system. ~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 1992 Effective Fall Semester 2023

## DEPARTMENT OF STATISTICS AND PROBABILITY

STT 201 Statistical Methods

Fall of every year. Spring of every year. Summer of every year. 4(3-2) ~~P~~: (MTH ~~10~~2 ~~o~~r MTH ~~10~~3 or MTH ~~11~~6 ~~o~~r ~~L~~B ~~11~~7 ~~o~~r MTH 1~~2~~4 ~~o~~r MTH ~~13~~2 ~~o~~r ~~L~~B ~~118~~) ~~o~~r designat~~e~~d sco~~r~~e ~~o~~n Mathematics Placem~~en~~t test P: (MTH 102 or MTH 103 or MTH 116 or LB 117 or MTH 124 or MTH 132 or LB 118 or MTH 101) or designated score on Mathematics Placement test R: Open to undergraduate students. Not open to students with credit in STT 200 or STT 421.

Probability and statistics with computer applications. Data analysis, probability models, random variables, tests of hypotheses, confidence intervals, simple linear regression. Weekly lab using statistical software.

Effective Spring Semester 2023

## DEPARTMENT OF TEACHER EDUCATION

TE 101 Social Foundations of Justice and Equity in Education

Fall of every year. Spring of every year. Summer of every year. 3(3-1) 3(3-0) Not open to students with credit in TE 250.

Understanding self, schools, and society; emphasizing racial justice, equity, and social identity markers.

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2020 Effective Fall Semester 2023

TE 102 Pedagogy and Politics of Justice and Equity in Education

Fall of every year. Spring of every year. 3(3-1) 3(3-0) P: TE 101 ~~RB~~: Comple~~tio~~n ~~o~~f ethn~~i~~c studies ~~course~~, ~~o~~r concurrent.

Understanding self, schools, and society; emphasizing racial justice, equity in education, pedagogy, and politics.

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2020 Effective Fall Semester 2023

TE 302 Lear~~ner~~s a~~n~~d Learni~~n~~g in Co~~ntext~~s – Seconda~~r~~y (W)

Literacy and Adolescent Learners in School and Community Contexts

Fall of every year. Spring of every year. Summ~~e~~r ~~o~~f ~~ever~~y year. ~~4(3-4)~~ 3(3-0) ~~P~~: TE ~~15~~0 ~~an~~d (TE ~~25~~0 a~~n~~d comple~~tio~~n ~~o~~f Ti~~e~~r I ~~writin~~g requirement) P: (TE 102 and TE 150) and completion of Tier I writing requirement RB: This course should be taken concurrently with a pre-internship clinical experience course in the Secondary Teacher Certification Program. Please see a College of Education adviser for more details. To be taken with a clinical experience in spring of junior year or fall of senior year ~~R~~: ~~No~~t ~~ope~~n ~~t~~o ~~freshme~~n ~~o~~r soph~~omore~~s a~~n~~d op~~e~~n ~~t~~o stu~~dent~~s ~~i~~n the Secondary T~~eache~~r Certific~~atio~~n Prog~~ra~~m (Admitted).. R: Not open to freshmen or sophomores.

~~Rol~~e ~~o~~f ~~socia~~l c~~ontex~~t and sociocultural background ~~i~~n learni~~n~~g ~~a~~t ~~th~~e seco~~ndar~~y le~~ve~~l (7- ~~12)~~. Natural and socia~~ll~~y constr~~ucte~~d differenc~~e~~s among lear~~ners~~. Relation~~shi~~p among subject-specific knowledg~~e~~, teachi~~n~~g ~~an~~d learni~~n~~g ~~tha~~t subj~~ect~~, ~~an~~d ~~th~~e institutional and communal cont~~ext~~. ~~Multipl~~e literaci~~es~~. Multiple literacies, diverse learners, and subject- specific content at the secondary level (7-12). Equitable and culturally sustaining instructional practices for content-area reading across the disciplines. Differentiating instruction and creating inclusive classrooms for linguistic freedom. Home, school, and community partnerships.

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

TE 330 Science Curriculum for Young Learners (PK-3)

Fall of every year. Spring of every year. Summer of every year. 3(3-0) 3(3-2) RB: Completion of an ISB and ISB laboratory or ISP and ISP laboratory course. R: Open to students in the Elementary Teacher Certification Program (Admitted). ~~C~~: TE ~~37~~2 concurrently.

Science curriculum standards for grades PK-3. Instructional materials and approaches for supporting science learning.

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

TE 332 Science Curriculum for Upper Elementary Learners (3-6)

Fall of every year. Spring of every year. Summer of every year. 3(3-0) 3(3-2) ~~P~~: ~~IS~~E 301 P: TE 204 RB: Completion of ISB, ISP and ISB/ISP laboratory courses R: Open to students in the Elementary Teacher Certification Program (Admitted). ~~C~~: TE ~~37~~2 concurrently.

Science curriculum standards for grades 3-6. Instructional materials and approaches for supporting science learning.

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

TE 333 Social Studi~~e~~s ~~fo~~r ~~Youn~~g Lear~~ner~~s (PK-6)

Social Studies for Upper Elementary Learners (3-6)

Fall of every year. Spring of every year. Summer of every year. 3(3-0) 3(3-2) ~~RB~~: Comple~~tio~~n of Ti~~e~~r I Wr~~itin~~g Requirement and Completion of ~~IS~~S requirem~~ents~~. Completi~~o~~n ~~o~~f ~~HS~~T ~~30~~1 ~~O~~R HST ~~30~~2 ~~fo~~r candid~~ate~~s ~~fo~~r ~~3-~~6 gra~~d~~e band. R: Open to students in the Elementary Teacher Certification Program (Admitted). ~~C~~: TE ~~37~~1 concurrently.

~~History~~, geogra~~phy~~, ~~civic~~s and governm~~ent~~, econom~~ics~~, publ~~i~~c disco~~urse~~, decision- making, ~~an~~d citi~~ze~~n involvemen~~t~~; emphasizing ~~PK-~~3 social ~~studie~~s co~~ntent~~, including Michig~~an~~, Un~~ite~~d ~~States~~, ~~an~~d Global Studies. History, geography, civics and government, economics, public discourse, decision-making, and citizen involvement; emphasizing 3-6 social studies content, including Michigan, United States, and Global Studies.

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

TE 341 Teaching and Learning of (Bi)Multilingual Learners

Fall of every year. Spring of every year. Summer of every year. 3(3-0) ~~P~~: Completion ~~o~~f Ti~~e~~r I Wr~~itin~~g Requirement P: (TE 101) and completion of Tier I writing requirement R: Open to students in the Elementary Teacher Certification Program (Admitted).

Social and psychological language theoretical perspectives, principles, and fundamental approaches for the teaching and learning of (bi)multilingual learners. Historical background, current policies, sociocultural dimensions, and classroom implications of (bi)multilingualism.

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

TE 348 Reading and Responding to Children's Literature

Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: Completion of Tier I Writing Requirement

Literary understanding and genres in reading and teaching children's literature. Critical and theoretical perspectives in evaluating children's literature. Children's responses to literature. Literary, social, and pedagogical issues in the study of children's literature. ~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2014 Effective Fall Semester 2023

TE 352 ~~Immigran~~t Langua~~g~~e a~~n~~d Culture Migration and Education

Fall of every year. ~~Sprin~~g ~~o~~f o~~d~~d years. 3(3-0)

~~Minorit~~y langua~~g~~e communities ~~an~~d cultur~~es~~. Fam~~il~~y ~~literac~~y ~~issue~~s a~~n~~d val~~ues~~. Emergent ~~an~~d adolesce~~n~~t ~~literac~~y develop~~ment~~. Parenti~~n~~g and parental involvemen~~t~~. Home-school connection. Fa~~mil~~y ~~literac~~y pr~~ograms~~. Educational equity, language, and culture.

Immigration and educational policies. Community and family engagement. Values, beliefs, and systems surrounding citizenship, belongingness, and immigration.

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

TE 353 International Education

Spring ~~o~~f ~~eve~~n years. Spring of every year. 3(3-0)

Education in the global economy. Access and achievement, gender differences, pedagogy and culture, role of home and community, school resources, teacher quality and policy, policy challenges in developing countries, role of international organizations, privatization of higher education.

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

TE 371 Justice and Equity Seminar I

Fall of every year. Spring of every year. Summer of every year. 1(1-0) P: TE 102 ~~R~~: ~~Ope~~n to students in the elementary teacher certification program (admitted) or in Secondary Teacher Certificati~~o~~n Pr~~ogra~~m (Admitted).. R: Open to students in the Elementary Teacher Certification Program (Admitted).

Application of equity and justice principles in co-occurring course- and/or field-based work. ~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2022 Effective Fall Semester 2023

TE 372 Justice and Equity Seminar II

Fall of every year. Spring of every year. Summer of every year. 1(1-0) ~~P~~: TE 371 P: TE 102 R: Open to students in the elementary teacher certification program (admitted) or in Secondary T~~eache~~r Certific~~atio~~n Prog~~ra~~m (Admitted).. R: Open to students in the Elementary Teacher Certification Program (Admitted).

Application of equity and justice principles in co-occurring course- and/or field-based work. ~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2022 Effective Fall Semester 2023

TE 403 Teaching Science to Diverse Learners - Elementary

Fall of every year. 3(3-2) P: TE 330 or TE 332 R: Open to students in the elementary teacher certification program (admitted) and open to students in the elementary teacher certification program (admitted). ~~C~~: TE ~~47~~1 concurrently.

Engaging diverse learners in grades PK-6 to make sense of the natural world. Lesson planning, formative assessment, discourse strategies, and resources for learning science. Supporting children’s sense-making through engagement in scientific practices.

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

TE 404 Teaching Social Studies to Diverse Learners - Elementary (W)

Fall of every year. ~~Sprin~~g ~~o~~f ev~~er~~y year. 3(3-2) ~~P~~: (TE ~~33~~3 and TE ~~403~~) and comple~~tio~~n ~~o~~f Ti~~e~~r I ~~writin~~g requirement P: (TE 333) and completion of Tier I writing requirement R: Open to students in the elementary teacher certification program (admitted) and open to students in the elementary teacher certification program (admitted). ~~C~~: TE ~~47~~2 concurrently.

Teaching social studies to diverse learners at the elementary level (PK-6). Inquiry into and construction of subject-specific meaning. Social studies subject matter adapted to learner diversity. Teachers’ roles, including professional, intellectual, and sociopolitical responsibilities.

Effective Fall Semester 2023

TE 405 Teachi~~n~~g Lite~~rac~~y ~~t~~o ~~Divers~~e Lear~~ner~~s (3-6) Teaching Literacy to Diverse Learners I (3-6)

Fall of every year. Spring of every year. 3(3-2) ~~P~~: TE ~~30~~1 and TE ~~40~~3 and TE 406 P: TE 301B R: ~~Ope~~n ~~t~~o stude~~nt~~s ~~i~~n ~~th~~e elementary teacher certification prog~~ra~~m (admitted) ~~an~~d op~~e~~n ~~t~~o st~~udent~~s in ~~th~~e elem~~entar~~y ~~teache~~r certific~~atio~~n progr~~a~~m (admitted). ~~C~~: TE ~~47~~2 conc~~urrentl~~y ~~an~~d TE 404 concurrently.

Teaching language and literacy to diverse learners in grades 3-6. Literacy learning environments. Culturally responsive practices in literacy. Literacy curriculum design and assessment. Teaching motivation and engagement, phonics, spelling, syntax, reading fluency, vocabulary, comprehension, composition, and speaking and listening in grades 3- 6.

Effective Fall Semester 2023

TE 405A Teachi~~n~~g Lite~~rac~~y ~~t~~o ~~Divers~~e Lear~~ner~~s I (PK-3) Teaching Literacy to Diverse Learners (PK-3)

Fall of every year. Spring of every year. 3(3-2) ~~P~~: TE 301 P: TE 301A R: Open to students in the Elementary Teacher Certification Program (Admitted). ~~C~~: TE ~~47~~1 concurrent~~l~~y ~~an~~d TE 403 concurr~~entl~~y a~~n~~d TE ~~406~~A concurrently.

Teachi~~n~~g language and litera~~c~~y ~~t~~o ~~divers~~e le~~arner~~s in ~~earl~~y childho~~o~~d Litera~~c~~y learning environmen~~ts~~. ~~Literac~~y curricul~~u~~m des~~ig~~n and ~~assessment~~. Cultur~~all~~y responsive ~~practice~~s in liter~~acy~~. Teaching ~~motivatio~~n and engagem~~ent~~, ~~prin~~t conc~~epts~~, phonological awar~~eness~~, ph~~onics~~, spelli~~ng~~, vocabu~~lary~~, handwriti~~ng~~, comprehensi~~on~~, composition, speak~~in~~g ~~an~~d listening ~~i~~n ea~~rl~~y childhood clas~~srooms~~. Teaching language and literacy to diverse learners in early elementary Literacy learning environments. Literacy curriculum design and assessment. Culturally responsive practices in literacy. Teaching motivation and engagement, print concepts, phonological awareness, phonics, spelling, word recognition, morphology, syntax, vocabulary, handwriting, comprehension, composition, speaking and listening in early elementary classrooms.

Effective Fall Semester 2023

TE 405B Teaching Literacy to Diverse Learners II (PK-3)

Fall of every year. Spring of every year. 3(3-2) ~~P~~: TE ~~405~~A a~~n~~d TE 406A P: TE 405A R: Open to students in the Elementary Teacher Certification Program (Admitted). ~~C~~: TE ~~47~~2 concurrent~~l~~y and TE ~~40~~4 conc~~urrentl~~y ~~an~~d TE ~~406~~B concurrently.

Teaching language and literacy to diverse learners in the early elementary grades. Literacy learning environments. Literacy curriculum design and assessment. Culturally responsive practices in literacy. Teaching motivation and engagement, phonics, spelling, word recognition, morphology, syntax, reading fluency, vocabulary, handwriting, comprehension, composition, speaking and listening in early elementary grades classrooms.

Effective Fall Semester 2023

TE 406 Teachi~~n~~g Math~~ematic~~s ~~t~~o Div~~ers~~e Learne~~r~~s (3-6) Teaching Mathematics to Diverse Learners I (3-6)

Fall of every year. Spring of every year. 3(3-2) ~~P~~: MTH ~~20~~1 ~~an~~d MTH 202 P: TE 202 ~~R~~: ~~Ope~~n to ~~student~~s ~~i~~n the elem~~entar~~y teac~~he~~r certification progr~~a~~m (admitt~~ed~~) ~~an~~d op~~e~~n ~~t~~o stude~~nt~~s ~~i~~n the elem~~entar~~y teac~~he~~r certification progr~~a~~m (admitted). ~~C~~: TE ~~47~~1 concurrent~~l~~y ~~an~~d TE 403 concurrently.

Building mathematical relationships with diverse learners in Grades 3-6. Choosing representations, eliciting children’s thinking, and implementing tasks to develop children’s understanding of whole numbers and operations and fractions, decimals, and operations. Teacher’s roles, including professional, intellectual, and sociopolitical responsibilities.

Effective Fall Semester 2023

TE 406A Teachi~~n~~g Math~~ematic~~s ~~t~~o Div~~ers~~e Learne~~r~~s I (PK-3) Teaching Mathematics to Diverse Learners I (PK3)

Fall of every year. Spring of every year. 3(3-2) ~~P~~: MTH 202 P: TE 202 R: Open to students in the Elementary Teacher Certification Program (Admitted). ~~C~~: TE ~~47~~1 concurrent~~l~~y ~~an~~d TE 403 concurr~~entl~~y a~~n~~d TE ~~405~~A concurrently.

Building mathematical relationships with diverse learners in grades PK-3. Planning mathematics lessons. Designing and using formative and summative assessment in mathematics. Choosing representations, eliciting children’s thinking, and implementing tasks to develop children’s understanding of counting, whole number, and operations. Effective Fall Semester 2023

TE 406B Teaching Mathematics to Diverse Learners II (PK-3)

Fall of every year. Spring of every year. 3(3-2) ~~P~~: TE ~~405~~A a~~n~~d TE 406A P: TE 406A R: Open to students in the Elementary Teacher Certification Program (Admitted). ~~C~~: TE ~~47~~2 concurrent~~l~~y and TE ~~40~~4 conc~~urrentl~~y ~~an~~d TE ~~405~~B concurrently.

Building positive mathematical identities in diverse learners in grades PK-3. Planning series of mathematics lessons. Pedagogical practices for small- and whole-group activities. Choosing representations, eliciting children’s thinking, and implementing tasks to develop children’s understanding of attribution and fractions.

Effective Fall Semester 2023

TE 471 Justice and Equity Seminar III

Fall of every year. Spring of every year. Summer of every year. 1(1-0) ~~P: TE 372 R: Open to~~ students in the elementary teacher certification program (admitted) or in Secondary Teacher Certificati~~o~~n Pr~~ogra~~m (Admitted).. R: Open to students in the Elementary Teacher Certification Program (Admitted).

Application of equity and justice principles in co-occurring course- and/or field-based work. ~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2022 Effective Fall Semester 2023

TE 472 Justice and Equity Seminar IV

Fall of every year. Spring of every year. Summer of every year. 1(1-0) ~~P: TE 471 R: Open to~~ students in the elementary teacher certification program (admitted) or in Secondary Teacher Certificati~~o~~n Pr~~ogra~~m (Admitted).. R: Open to students in the Elementary Teacher Certification Program (Admitted).

Application of equity and justice principles in co-occurring course- and/or field-based work. ~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2022 Effective Fall Semester 2023

## PROGRAM IN WOMEN’S STUDIES

WS 203 Introduction to Methods for Women's and Gender Studies Research

Fa~~l~~l ~~o~~f ~~eve~~n years. Fall of every year. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. ~~P~~: Comple~~tio~~n ~~o~~f Ti~~e~~r I Wr~~itin~~g Requirement P: (WS 202 or concurrently or approval of department) or completion of Tier I writing requirement RB: WS 201 or SOC 216 or ANP 220 or AAAS 200 or AAAS 202

Interdisciplinary research methods for global women's and gender studies. ~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2015 Effective Fall Semester 2023