

**University Curriculum Committee  
March 23, 2023 Meeting Minutes**

The University Curriculum Committee met on **Thursday, March 23** at 3:00 p.m. via Zoom Meeting.

**Members Present:**

Julie Baker	Darron Smith	Martin Sheehan	Christy Killman
Ben Mohr	Mike Gotcher	Sharon Huo	Jeremy Wendt, Chair
Linda Null	Jeff Boles	Barbara Jared	Kim Hanna
Brandi Fletcher	Wesley Pech	Brittany Copley	Karen Lykins
Jeff Roberts	Colin Hill	Julie Galloway	Chris Brown
Kent Dollar	Allan Mills	Allen MacKenzie	Steve Frye
Mark Stephens	Kim Winkle	Thomas Payne	Chris Wilson
Lisa Zagumny	Michael Allen	Melinda Anderson	Mohan Rao
Rita Barnes	Addison Dorris, Student	Stephen Robinson	Brenda Wilson
Thomas Timmerman	Fred Vondra	Sharon Holderman	Jeannette Luna
Lori Maxwell	Richard Rand	Robby Sanders	

**Members Absent:**

Jerry Gannod	LTC James Bryant	Jennifer Shank	Hannah Thomas, Student
Lindsey Taylor, Student	Kamyah Crowley, Student	Jeb MacLennan, Student	

**Official Representative(s):**

Victoria Ayres FOR	James Baier	Kumar Yelamarthi FOR	Joseph Slater
Tammy Boles FOR	Steven Sharp	Elizabeth Honeycutt FOR	Stephanie Kazanas

**Guest(s):**

Allen Mullis	Mary McCaskey, Registrar's Office	Ramachandran Natarajan	Dennis Tennant
Mary McCaskey, Financial Aid	Jerri Winningham	Jie Cui	

**Outline of Proceedings:**

<b>1.</b>	UCC	Approval of Agenda	<b>9A.</b>	C&I	Curriculum/Catalog Changes
<b>2.</b>	UCC	Approval of February 9, 2023 Minutes	<b>9B.</b>	C&I	Addition of New Course and Course/Catalog Changes
<b>3.</b>	VL	Course Deletion	<b>9C.</b>	C&I	Curriculum/Catalog Changes
<b>4.</b>	HEC	Course/Curriculum Changes	<b>10A.</b>	EXPW	Addition of New Courses
<b>5A.</b>	AG	Prerequisite Changes	<b>10B.</b>	EXPW	Program Name Change
<b>5B.</b>	AG	Addition of New Concentration	<b>10C.</b>	EXPW	Addition of New Concentration
<b>6.</b>	ACD	Addition of New Course/Curriculum Changes	<b>10D.</b>	EXPW	Deletion of Courses
<b>7.</b>	HIST	Curriculum Changes	<b>10E.</b>	EXPW	Course Name Change
<b>8.</b>	ES	Addition of New Course/Curriculum Changes	<b>11A.</b>	BIOL	Course Addition/Deletion/Curriculum Changes

<b>11B.</b>	BIOL	Curriculum Changes	<b>18.</b>	GBE	Prerequisite/Curriculum Changes
<b>12A.</b>	DSM	Addition of New Minor	<b>19.</b>	ME	Prerequisite Changes
<b>12B.</b>	DSM	Concentration Name Change	<b>20A.</b>	MUS	Course Name Changes
<b>12C.</b>	DSM	Course/Curriculum Changes	<b>20B.</b>	MUS	Curriculum Changes
<b>13.</b>	MATH	Addition of New Courses	<b>20C.</b>	MUS	Addition of New Minor
<b>14.</b>	ENGL	Addition of New Certificate	<b>21.</b>	PS	Addition of New Courses
<b>15.</b>	CHEM	Curriculum Changes	<b>22.</b>	Info Item	Post-Bacc Program from ACD
<b>16.</b>	CSC	Prerequisite Changes	<b>23.</b>		Election of UCC Chair 2023-2024
<b>17A.</b>	ECE	Addition of New Concentration	<b>24.</b>	Info Item	CPOS Changes in Minors
<b>17B.</b>	ECE	Addition of New Courses			Other Such Matters

Proceedings:

Perceiving a quorum, Dr. Jeremy Wendt, Chair of Committee, called the meeting to order at 3:00pm via Zoom.

**1. Approval of agenda**

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried.

**2. Approval of minutes, February 9, 2023**

**Motion to approve.** Julie Baker

**Second.** Darron Smith

**Vote.** Motion carried.

**3. Volpe Library**

**A. Course Deletion.**

**1. UNIV 1010: College Reading Improvement Lec. 2 Lab. 2 Credit 3**

Course Description: Improvement of reading skills includes vocabulary, spelling, comprehension, rate, main idea, supporting details, organization and relationships, and critical and strategic reading.

Justification: The Learning Support Program no longer exists, and reading learning support is moving to the College of Education. They will use their own course prefix/number, so this course will no longer be taught after Spring 2023.

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried.

**4. Human Ecology**

**A. Course/Curriculum Changes.**

**Course Changes:**

**1. From:**

HEC 4945 Sports and Human Performance Nutrition Lec 3. Credit 3.

Prerequisites: HEC 1030 or HEC 2020

Principles and application of sports nutrition strategies to optimize sports performance.

**To:**

HEC 4945 Sports and Human Performance Nutrition Lec 3. Credit 3.

Prerequisites: HEC 3270 OR EXPW 4440

Principles and application of sports nutrition strategies to optimize sports performance.

**2. From:**

HEC 3310 Textiles I Lec 2. Lab. 2. Credit 3.

Prerequisite: Grade of C or better in Math 1010 OR MATH 1530 , CHEM 1010, CHEM 1020

Fibers, yarns, fabrics, finishes, and applied design related to the selection, evaluation, use and care of textile products.

**To:**

HEC 3310 Textiles I Lec 2. Lab. 2. Credit 3.

Prerequisite: Grade of C or better in Math 1010 OR MATH 1530.

Fibers, yarns, fabrics, finishes, and applied design related to the selection, evaluation, use and care of textile products.

**3. From:**

HEC 3565 – Loss and Bereavement for Children and Families  
Lec. 3. Credit 3.

Prerequisite: HEC 2065 and HEC 2200: Junior or Senior Standing. Topics including loss, death, grief, and bereavement with focused application on children and families. Developmentally based psychosocial care provision will be integrated.

**To:**

HEC 3565 – Loss and Bereavement for Children and Families  
Lec. 3. Credit 3.

Prerequisite: HEC 2065 and HEC 1010 or HEC 2200: Junior or Senior Standing. Topics including loss, death, grief, and bereavement with focused application on children and families. Developmentally based psychosocial care provision will be integrated.

### Curriculum Changes

**4. From:**

HEC 2065 Families in Society during the first semester of sophomore year  
Lec. 3, Credit 3.

**To:**

HEC 2800 Introduction to Teaching Family and Consumer Sciences to the first semester of the sophomore year.  
Lec. 2, Lab 2, for Credit 3

**5. From:**

Guided Electives in the second semester of sophomore year  
Lec. 3, Credit 3.

**To:**

HEC 2065 Families in Society to the second semester of the sophomore year  
Lec. 3, Credit 3

### Child Life Curriculum Sheet

**6. From:**

The Child Life program, a gateway to the Certified Child Life Specialist (CCLS) credential, is coordinated with the Association of Child Life Professionals programmatic and educational standards for the child life practitioner.

Application to the Child Life program at Tennessee Technological University is required and should be made in the second semester of sophomore year after completing HEC 2250 and while enrolled in HEC 2550.

The components of eligibility to sit for the Child Life Professional Certification Examination are:

1. Baccalaureate degree
2. Complete 10 college courses in specific content areas
  - Including child life content taught by a Certified Child Life Specialist
3. Child Life Clinical Internship (600 hours under the direct supervision of a Certified Child Life Specialist)

For more details regarding eligibility requirements, please see the Association of Child Life Professional's website at [childlife.org](http://childlife.org)

**To:**

The Child Life program, a gateway to the Certified Child Life Specialist (CCLS) credential, is coordinated with the Association of Child Life Professionals programmatic and educational standards for the child life practitioner.

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For more details regarding eligibility requirements, please see the Association of Child Life Professional's website at [childlife.org](http://childlife.org)

**Child Life Curriculum Note**

**7. From:**

As an Endorsed Academic Program, Tennessee Tech's Child Life Concentration conforms to the Association of Child Life Professionals standards. In order to graduate with a B.S. degree, Human Ecology, concentration Child Life, the following requirements must be completed prior to graduation.

**To:**

As an Endorsed Academic Program, Tennessee Tech's Child Life Concentration conforms to the Association of Child Life Professionals standards.

### Design Studies, Fashion Merchandising and Design Curriculum Sheet

**8. Add Note 3:**

Choose 8 credits from this Natural Science list: CHEM 1010, CHEM 1020, CHEM 1110, CHEM 1120, BIOL 1010, BIOL 1020, BIOL 1080, BIOL 1113, or BIOL 1123

**9. From:**

Freshman Year, First Semester  
CHEM 1010 4 credits

**To:**

Freshman Year, First Semester  
Natural Science Elective – see list in Note 3

**10. From:**

Freshman Year, Second Semester  
CHEM 1020 4 credits

**To:**

Freshman Year, Second Semester  
Natural Science Elective – see list in Note 3

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried.

**5. Agriculture**

**A. Course Description/Prerequisite Changes.**

**1. From:**

AGHT 3030 - Integrated Pest Management  
Spring (O) Lec. 2. Lab. 2. Credit 3.  
Introduction to the aspects of integrated pest management including pest and disease identification, symptoms, and fundamentals of controls.

**To:**

AGHT 3030 - Integrated Pest Management  
Lec. 2. Lab 2. Credit 3.  
**Prerequisite: AGRN 1100 & 1110 Plant Science & Lab.**  
**Principles and practices of integrated pest management including pest and disease identification, symptoms, signs; and fundamentals of biocontrol's and pesticide safety.**

**2. From:**

AGHT 3410 - Plant Propagation

Fall. Lec. 2. Lab. 2. Credit 3.

Asexual and sexual propagation of plants by cuttings, layering, division, special structures, grafting, seeds, and tissue culture.

**To:**

AGHT 3410 – Plant Propagation

Lec. 2. Lab 3. Credit 3.

**Prerequisite:** BIOL 2310 Botany.

**Principles and applications associated with asexual and sexual propagation of plants; and activities using proper techniques to ensure success.**

**3. From:**

AGHT 4410 - Nursery Management

Spring. (O). Lec. 2. Lab. 3. Credit 3.

Principles and practices of retail and wholesale nursery site selection, field and container production, and resource management. Development of commercial production schedule required.

**To:**

AGHT 4410 - Nursery **Production and Mgmt**

Lec. 2. Lab 3. Credit 3.

**Prerequisite:** AGHT 3410 - Plant Propagation, or consent by Advisor.

**Principles and practices of commercial nursery site operation, plant cultural requirements, field and container production, and resource management options.**

**4. From:**

AGHT 4420 - Greenhouse Management and Crop Production

Spring. (E). Lec. 2. Lab. 3. Credit 3.

**Prerequisite:** AGHT 3410, AGET 4610 (5610), or consent by advisor.

Principles of greenhouse management and environmental controls; production, timing, harvesting, and marketing of commercial floricultural crops; pest control strategies; and nutrient film technique. Development of commercial production schedule required.

**To:**

AGHT 4420 – Greenhouse **Production and Mgmt**

Lec. 2. Lab 3. Credit 3.

**Prerequisite:** AGHT 3410 - **Plant Propagation**, or consent by Advisor.

**Principles and activities of controlled environment production and management, crop cultural requirements, and basic scheduling of commercial horticultural crops.**

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried.

**B. Addition of New Concentration**

New Poultry Science Concentration within the Animal Science Program  
Chicken is the most consumed meat in the world and the US is the world's largest producer of broiler (meat-type) chickens. Tennessee is a significant employer in the poultry industry, supplying much of the genetic stock to produce these chickens. Tennessee Tech University recently hosted the Grand Opening of a new, \$2 million Poultry Science Research Center which will benefit the surrounding poultry industry and Tech students. Demonstrating the students' interest in poultry science, the Poultry Science Club has also grown to a total of 19 members since 2021. Drs. Victoria Ayres and Jim Baier recently chaperoned five students at the International Products and Processing Expo in Atlanta, Georgia this January, which allows students to interview for various positions in poultry and animal science related industries. Four of the five students received internship or full-time position offers from this conference. Currently, the state of Tennessee does not have a university-based poultry science research program for undergraduates. Therefore, a total of seven to ten students are expected to enter the new concentration, once it becomes available. As the program gains notoriety, Tennessee Tech University's School of Agriculture expects this number to increase, as the demand for poultry scientists increases.

Effective Date: Fall 2023

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried

**6. Art, Craft & Design**

**A. Course Addition.**

**1. ART 2050: Intaglio Printmaking, Studio 6. Credit 3.**

Pre-requisites: ART 1045 or permission of the instructor

Course Description: Introduction to intaglio printmaking techniques such as, drypoint, etching, aquatint, and collagraph.

A grade of "C" or better is required for course credit.

**Course Changes.**

**2. From:**

ART 2510: Introduction to Clay Studio 6. Credit 3.

Pre-requisites: None

Course Description: Introduction to clay handbuilding. Introductory study of handbuilding, sculptural processes and decorating techniques.



**To:**

ART 2510: Introduction to **Handbuilding** Studio 6. Credit 3.

Pre-requisites: None

Course Description: Introduction to clay handbuilding. Introductory study of handbuilding, sculptural processes and decorating techniques.

A grade of "C" or better is required for course credit.

**Curriculum/Catalog Changes**

**3. Bachelor of Fine Arts, Painting concentration**

ADD: ART 2050-Intaglio Printmaking and ART 2210-Intro to Design to list of Studio Intro of choice in fall and spring of junior year.

MOVE: ART 3099-Professional Practices of the Artist from spring junior year to fall junior year.

MOVE: HIST 2020-Modern United States History from fall junior year to spring junior year.

**4. Bachelor of Fine Arts, Design concentration**

ADD: ART 2050-Intaglio Printmaking to list of Studio Intro of choice in spring of junior year and fall of senior year.

**5. Bachelor of Fine Arts, Dual-Focus concentration**

ADD: ART 2050-Intaglio Printmaking and ART 2210-Intro to Design to list of Studio Intro of choice in spring freshman year and fall of sophomore year.

MOVE: ART 3099-Professional Practices of the Artist from spring junior year to fall junior year.

MOVE: ART studio concentration Core 2 (3000/4000 level course) to spring junior year.

**6. Bachelor of Fine Arts, Fibers concentration**

ADD: ART 2050-Intaglio Printmaking and ART 2210-Intro to Design to list of Studio Intro of choice in spring junior year and fall of senior year.

MOVE: ART 3099-Professional Practices of the Artist from spring junior year to fall junior year.

MOVE: Studio Intro of Choice from fall junior year to spring junior year.

**7. Bachelor of Fine Arts, Glass concentration**

ADD: ART 2050-Intaglio Printmaking and ART 2210-Intro to Design to list of Studio Intro of choice in fall and spring of junior year.

MOVE: ART 3099-Professional Practices of the Artist from spring junior year to fall junior year.

MOVE: ART 3730-Independent Studies in Glass or 4740-Special Problems in Glass from fall to spring junior year.

**8. Bachelor of Fine Arts, Metals concentration**

ADD: ART 2050-Intaglio Printmaking and ART 2210-Intro to Design to list of Studio Intro of choice in fall and spring of junior year.

MOVE: ART 3099-Professional Practices of the Artist from spring junior year to fall junior year.

MOVE: ART 3830-Independent Studies in Metals from fall junior year to spring junior year

**9. Bachelor of Fine Arts, Wood concentration**

ADD: ART 2050-Intaglio Printmaking and ART 2210-Intro to Design to list of Studio Intro of choice in fall and spring of junior year.

MOVE: ART 3099-Professional Practices of the Artist from spring junior year to fall junior year.

MOVE: HIST 2020-Modern United States History from fall junior year to spring junior year.

**10. Bachelor of Fine Arts, Clay concentration**

CHANGE from: ART 2510: Intro to Clay to ART 2510: Intro to Handbuilding in spring freshman year.

ADDED ART 2540: Intro to Wheelthrowing to spring of freshman year. Students can take either ART 2510: Intro to Handbuilding OR ART 2540: Intro to Wheelthrowing in spring of freshman year.

ADDED ART 3540: Intermediate Wheelthrowing OR ART 3511: Intermediate Handbuilding to fall of sophomore year.

CHANGE from: ART 3540: Intermediate Wheelthrowing AND ART 3511: Intermediate Handbuilding in spring of sophomore year to ART 3540: Intermediate Wheelthrowing OR ART 3511: Intermediate

MOVED ART 3099: Professional Practices from spring junior year to fall junior year.

MOVED HIST 2020: Modern US History from fall junior year to spring junior year.

MOVED Natural Science Elective from fall Sophomore year to spring of Junior year.

ADD ART 2050 Intaglio Printmaking and ART 2210 Intro to Design to list of Studio Intro of choice options in spring sophomore year and fall junior year.

DELETE ART 3521: Advanced Clay Studio, 3530/1: Independent Studies in Clay from spring of junior year.

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried.

## 7. History

### A. Curriculum Changes.

1. Allow GEOL/GEOG to count as the same discipline for B.S. Natural Science requirements. The History Department seeks to add a clarifying statement to the B.S. program sheet to indicate that general education courses listed GEOL or GEOG prefixes under the Natural Sciences will be considered as the same discipline. The overall content of this program is not changing other than allowing students to take these courses as one discipline. This proposed change is in line with other departments, including most recently, the Department of Mathematics.

**For the B.S. Program Sheet, these changes are as follows:**

#### 2. **From:**

Fifteen credit hours of Science with at least eight credit hours of general education natural science courses completed in the same discipline. HIST 3900, HIST 4290 (5290), HIST 4810 (5810) or MATH 4610 (5610) may substitute for three of the 15 total credit hours.

#### **To:**

Fifteen credit hours of Science with at least eight credit hours of general

education natural science courses completed in the same discipline.  
**GEOL/GEOG may be used together as the same discipline.** HIST 3900, HIST 4290 (5290), HIST 4810 (5810) or MATH 4610 (5610) may substitute for three of the 15 total credit hours.

Effective Date: Fall 2023

3. Alter the Recommended Order of U.S., Western Civilization, and World survey courses on the B.S. and B.A. Program Sheets.

The History Department seeks to swap the recommended time frame for when students take the requisite survey courses.

4. Swap the U.S. survey courses (HIST 2010 and 2020), currently listed under the Sophomore Year, with the suggested timing of the Western Civilization (HIST 2210 and 2220) /World History courses (HIST 2310 and 2320), currently listed under the Freshman Year.
5. Switch the order of the two World history courses so that HIST 2320 is listed under the Fall semester and 2310 is listed under the Spring.

## B.A. Program Sheet

### From:

Freshman Year

First Semester:

- ENGL 1010 - English Composition I Credit: 3.
- Foreign Language Credit: 3.<sup>4</sup>
- ~~HIST 2210 - Early Western Civilization Credit: 3. or~~
- ~~HIST 2310 - Early World History Credit: 3.~~
- MATH Credit: 3.
- Social/Behavioral Science Elective Credit: 3.

Second Semester

- ENGL 1020 - English Composition II Credit: 3.
- Foreign Language Credit: 3.<sup>4</sup>
- ~~HIST 2220 - Modern Western Civilization Credit: 3. or~~
- ~~HIST 2320 - Modern World History Credit: 3.~~
- HIST 3410 - Introduction to Historical Methods Credit: 3.
- Social/Behavioral Science Elective Credit: 3.

Sophomore Year

First Semester

- ENGL 2130 - Topics in American Literature Credit: 3. or
- ENGL 2235 - Topics in British Literature Credit: 3. or
- ENGL 2330 - Topics in World Literature Credit: 3.
- Foreign Language Credit: 3.4
- HIST 2010 - Early United States History Credit: 3.

- Humanities/Fine Arts Elective Credit: 3.
- Natural Science Credit: 4.

#### Second Semester

- COMM 2025 - Fundamentals of Communication Credit: 3. or
- PC 2500 - Communicating in the Professions Credit: 3.
- Foreign Language Credit: 3.4
- ~~HIST 2020 - Modern United States History Credit: 3.~~
- Humanities/Fine Arts Elective Credit: 3.
- Natural Science Credit: 4.

#### To:

#### Freshman Year

##### First Semester:

- ENGL 1010 - English Composition I Credit: 3.
- Foreign Language Credit: 3.<sup>4</sup>
- HIST 2010 - Early United States History Credit: 3.
- MATH Credit: 3.
- Social/Behavioral Science Elective Credit: 3.

##### Second Semester:

- ENGL 1020 - English Composition II Credit: 3.
- Foreign Language Credit: 3.4
- HIST 2020 – Modern United States History. Credit: 3.
- HIST 3410 - Introduction to Historical Methods Credit: 3.
- Social/Behavioral Science Elective Credit: 3.

#### Sophomore Year

##### First Semester

- ENGL 2130 - Topics in American Literature Credit: 3. or  
ENGL 2235 - Topics in British Literature Credit: 3. or  
ENGL 2330 - Topics in World Literature Credit: 3.
- Foreign Language Credit: 3.<sup>4</sup>
- HIST 2210 - Early Western Civilization Credit: 3. Or  
HIST ~~2310~~ 2320 - Early Modern World History Credit: 3.
- Humanities/Fine Arts Elective Credit: 3.
- Natural Science Credit: 4.

##### Second Semester

- COMM 2025 - Fundamentals of Communication Credit: 3. or  
PC 2500 - Communicating in the Professions Credit: 3.
- Foreign Language Credit: 3.<sup>4</sup>
- HIST 2220 - Modern Western Civilization Credit: 3. or  
HIST ~~2320~~ 2310- ~~Modern~~ Early World History Credit: 3.

- Humanities/Fine Arts Elective Credit: 3.
- Natural Science Credit: 4.

## B.S. Program Sheet

### From:

Freshman Year  
First Semester

- ENGL 1010 - English Composition I Credit: 3.
- HIST 2210 - Early Western Civilization Credit: 3. or
- HIST 2310 - Early World History Credit: 3.
- HIST 2010 - Early United States History Credit: 3.
- MATH Credit: 3.
- Natural Science Credit: 4.7

Spring Semester

- Elective Credit: 3.
- ENGL 1020 - English Composition II Credit: 3.
- ~~HIST 2220 - Modern Western Civilization~~ Credit: 3. or
- ~~HIST 2320 - Modern World History~~ Credit: 3.
- HIST 3410 - Introduction to Historical Methods Credit: 3.
- Natural Science Credit: 4.<sup>7</sup>

Sophomore Year

First Semester

- COMM 2025 - Fundamentals of Communication Credit: 3. or  
PC 2500 - Communicating in the Professions Credit: 3.
- Foreign Language, any course (3 credits)<sup>1</sup>
- ~~HIST 2010 - Early United States History~~ Credit: 3.
- Humanities/Fine Arts Elective Credit: 3.
- Social/Behavioral Science Elective Credit: 3.

Second Semester

- ENGL 2130 - Topics in American Literature Credit: 3. or  
ENGL 2235 - Topics in British Literature Credit: 3. or  
ENGL 2330 - Topics in World Literature Credit: 3.
- Foreign Language 1020 (3 credits)<sup>2</sup>
- HIST 2020 - Modern United States History Credit: 3.
- Humanities/Fine Arts Elective Credit: 3.
- Social/Behavioral Science Elective Credit: 3.

### To:

Freshman Year  
First Semester

- ENGL 1010 - English Composition I Credit: 3.

- HIST 2010 - Early United States History Credit: 3.
- MATH Credit: 3.
- Natural Science Credit: 4.<sup>7</sup>

#### Second Semester

- Elective Credit: 3.
- ENGL 1020 - English Composition II Credit: 3.
- HIST 2020 - Modern United States History Credit: 3.
- HIST 3410 - Introduction to Historical Methods Credit: 3.
- Natural Science Credit: 4.<sup>7</sup>

#### Sophomore Year

##### First Semester

- COMM 2025 - Fundamentals of Communication Credit: 3. or
- PC 2500 - Communicating in the Professions Credit: 3.
- Foreign Language, any course (3 credits)<sup>1</sup>
- HIST 2210 - Early Western Civilization Credit: 3. or  
HIST ~~2310~~ 2320 - ~~Early~~ Modern World History Credit: 3.
- Humanities/Fine Arts Elective Credit: 3.
- Social/Behavioral Science Elective Credit: 3.

##### Second Semester

- ENGL 2130 - Topics in American Literature Credit: 3. or  
ENGL 2235 - Topics in British Literature Credit: 3. or  
ENGL 2330 - Topics in World Literature Credit: 3.
- Foreign Language 1020 (3 credits)<sup>2</sup>
- HIST 2220 - Modern Western Civilization Credit: 3. or  
HIST ~~2320~~ – 2310 ~~Modern~~-Early World History Credit: 3.
- Humanities/Fine Arts Elective Credit: 3.
- Social/Behavioral Science Elective Credit: 3.

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried.

## 8. Earth Sciences

### A. Addition of New Course/Prerequisite Changes/Curriculum Changes.

#### Course Addition:

1. **GEOL 2600 Geosciences Career Preparation: Lecture 3, Credit 3**  
**Course Description:** Introduction to professional research methods used in the geosciences. Includes an overview of data types and collection methods, data management, survey of scientific literature, research design, and professional ethics. Activities help students

prepare to conduct projects and communicate with STEM professionals in their future careers.

### Prerequisite Changes.

#### 2. From:

GEOL 3120 – Mineralogy Lec. 3. Lab. 2. Credit 4.

Prerequisite: ~~GEOL 2500~~. Geometrical crystallography; determination of silicate and nonsilicate minerals by physical properties, chemical tests, and X-ray diffraction

#### To:

GEOL 3120 – Mineralogy Lec. 3. Lab. 2. Credit 4.

Prerequisite: **GEOL 1040**. Geometrical crystallography; determination of silicate and nonsilicate minerals by physical properties, chemical tests, and X-ray diffraction.

#### 3. From:

GEOL 3750 - Stable Isotope Geochemistry Lec. 3. Lab.2.Credit 4.

Prerequisite: ~~GEOL 2500~~ and CHEM 1110. This course will emphasize the geochemical elements of the Earth system. We will look at the nomenclature of stable isotope systems and look at the application to earth and environmental systems.

#### To:

GEOL 3750 - Stable Isotope Geochemistry Lec. 3. Lab.2. Credit 4.

Prerequisite: **CHEM 1110**. This course will emphasize the geochemical elements of the Earth system. We will look at the nomenclature of stable isotope systems and look at the application to earth and environmental systems.

#### 4. From:

GEOL 3830 - Field Geology Credit 4.

Prerequisite: GEOL 1040 and ~~GEOL 2500~~. Introduction to field methods involving the identification and tracing of geologic formations, aerial mapping and structure contouring. Eight hours field work per week.

#### To:

GEOL 3830 - Field Geology Credit 4.

Prerequisite: GEOL 1040 and **GEOL 2600**. Introduction to field methods involving the identification and tracing of geologic formations, aerial mapping and structure contouring. Six hours field work per week.

#### 5. From:

GEOL 4110 - Sedimentation and Stratigraphy Lec. 3. Lab. 2. Credit 4.

Prerequisite: GEOL 1040 and ~~GEOL 2500~~. Fundamental depositional processes, sedimentary structures, and facies models of siliciclastic



and carbonate sedimentary rocks. Basic stratigraphy concepts, methods of correlation, and introduction to sequence stratigraphy

**To:**

GEOL 4110 - Lec. 3. Lab. 2. Credit 4.

Prerequisite: **GEOL 1040**. Fundamental depositional processes, sedimentary structures, and facies models of siliciclastic and carbonate sedimentary rocks. Basic stratigraphy concepts, methods of correlation, and introduction to sequence stratigraphy.

**6. From:**

GEOL 4150 (5150) – Geomorphology Cross-listing: GEOG 4150 (5150)  
Lec. 2. Lab. 4. Credit 4.

Prerequisite: GEOL 1040 **and GEOL 2500 or consent of instructor**.  
Analysis of landforms and processes that shape them

**To:**

GEOL 4150 (5150) – Geomorphology Cross-listing: GEOG 4150 (5150)  
Lec. 2. Lab. 4. Credit 4.

Prerequisite: **GEOL 1040 Analysis of landforms and processes that shape them**.

**7. From:**

GEOL 4200 - Geological Exploration Techniques Lec. 3. Lab. 2. Credit 4

Prerequisite: GEOL 1040, ~~GEOL 1045 and GEOL 2500~~. Practical

techniques for geological exploration, with emphasis on environmental, mining, and petroleum industry applications. Surface and subsurface methods include geological mapping, drilling, core extraction, wireline logging and 2D/3D seismic

**To:**

GEOL 4200 - Geological Exploration Techniques Lec. 3. Lab. 2. Credit 4.

Prerequisite: **GEOL 1040**. Practical techniques for geological exploration, with emphasis on environmental, mining, and petroleum industry applications. Surface and subsurface methods include geological mapping, drilling, core extraction, wireline logging and 2D/3D seismic.

**8. From:**

GEOL 4210 - Advanced Historical Geology Lec. 3. Credit 3.

Prerequisite: ~~GEOL 2500~~. Advanced treatment of the Earth's history concentrating on plate tectonics, evolution of the biosphere and chemical changes from the Hadean to the Holocene

**To:**

GEOL 4210 - Advanced Historical Geology Lec. 3. Credit 3.

Prerequisite: **GEOL 1040**. Advanced treatment of the Earth's history concentrating on plate tectonics, evolution of the biosphere and chemical changes from the Hadean to the Holocene

**9. From:**

GEOL 4410 (5410) - Remote Sensing Cross-listing: GEOG 4410 (5410)  
Lec. 2. Lab. 2. Credit 3.

~~Prerequisite: GEOL 2500 and GEOL 3230 or consent of instructor.~~

Principles and applications of remote sensing. Provides a survey of the concepts and techniques of remote sensing and image analysis for natural resources, geomorphology, and Earth surface processes

**To:**

GEOL 4410 (5410) - Remote Sensing Cross-listing: GEOG 4410 (5410)  
Lec. 2. Lab. 2. Credit 3.

Principles and applications of remote sensing. Provides a survey of the concepts and techniques of remote sensing and image analysis for natural resources, geomorphology, and Earth surface processes

**10. From:**

GEOL 4711 (5711) – Hydrogeology Cross-listing: GEOG 4711 (5711)  
Lec. 3. Lab. 2. Credit 4.

~~Prerequisite: GEOL 1040 and GEOL 1045; CHEM 1120; MATH 1830 or MATH 1730 (MATH 1910 is recommended); or consent of instructor.~~

Occurrence and movement of ground water, well hydraulics, water quality, and pollution.

**To:**

GEOL 4711 (5711) – Hydrogeology Cross-listing: GEOG 4711 (5711)  
Lec. 3. Lab. 2. Credit 4.

Prerequisite: GEOL 1040 or GEOL 3210; MATH 1710 or MATH 1730 or MATH 1910. Occurrence and movement of ground water, well hydraulics, water quality, and pollution.

**11. From:**

GEOG 4150 (5150) – Geomorphology Cross-listing: GEOL 4150 (5150)  
Lec. 2. Lab. 4. Credit 4.

~~Prerequisite: GEOL 2500.~~ Analysis of landforms and processes that shape them

**To:**

GEOG 4150 (5150) – Geomorphology Cross-listing: GEOL 4150 (5150)  
Lec. 2. Lab. 4. Credit 4.

Prerequisite: GEOL 1040 Analysis of landforms and processes that shape them

**12. From:**

GEOL 4410 (5410) - Remote Sensing Cross-listing: GEOG 4410 (5410)  
Lec. 2. Lab. 2. Credit 3.

~~Prerequisite: GEOL 2500.~~ Principles and applications of remote sensing. Provides a survey of the concepts and techniques of remote sensing and image analysis for natural resources, geomorphology, and Earth surface processes.

**To:**

GEOG 4410 (5410) - Remote Sensing Cross-listing: GEOL 4410 (5410)  
Lec. 2. Lab. 2. Credit 3.

Principles and applications of remote sensing. Provides a survey of the concepts and techniques of remote sensing and image analysis for natural resources, geomorphology, and Earth surface processes.

**13. From:**

GEOG 4711 (5711) – Hydrogeology Cross-listing: GEOL 4711 (5711)  
Lec. 3. Lab. 2. Credit 4.

Prerequisite: GEOL 1040 ~~and GEOL 1045~~. Occurrence and movement of ground water, well hydraulics, water quality, and pollution

**To:**

GEOG 4711 (5711) – Hydrogeology Cross-listing: GEOG 4711 (5711)  
Lec. 3. Lab. 2. Credit 4.

Prerequisite: GEOL 1040 ~~or GEOL 3210; MATH 1710 or MATH 1730 or MATH 1910~~. Occurrence and movement of ground water, well hydraulics, water quality, and pollution

### Curriculum Changes

- 14.** Remove GEOL 2500 from all 4 geoscience concentrations and replace with GEOL 2600.

#### Geoscience Concentration:

Sophomore Year, Second Semester

GEOG 4510 (5510) - Theory of GIS I Credit: 3.

~~GEOL 2500 – Geological Fundamentals Credit: 3.~~

**GEOL 2600 Geosciences Career Preparation Credit: 3**

Humanities/Fine Arts Elective Credit: 3.

PHYS 2020 - Algebra-based Physics II Credit: 4. or

BIOL 3130 - General Ecology Credit: 4.

Total: 13

#### Geography Concentration:

Sophomore Year, Second Semester

GEOG 4510 (5510) - Theory of GIS I Credit: 3.

~~GEOL 2500 – Geological Fundamentals Credit: 3.~~

**GEOL 2600 Geosciences Career Preparation Credit: 3**

Humanities/Fine Arts Elective Credit: 3.

MATH 3070 - Statistical Methods I Credit: 3.

PHYS 2020 - Algebra-based Physics II Credit: 4. or

BIOL 3130 - General Ecology Credit: 4.

Total: 16

#### Geographic Information Systems Concentration:

Sophomore Year, Second Semester

Free Electives Credit: 3-4.  
GEOG 4510 (5510) - Theory of GIS I Credit: 3.  
~~GEOL 2500 – Geological Fundamentals Credit: 3.~~  
**GEOL 2600 Geosciences Career Preparation Credit: 3**  
Humanities/Fine Arts Elective Credit: 3.  
PHYS 2020 - Algebra-based Physics II Credit: 4. or  
BIOL 3130 - General Ecology Credit: 4.  
Total: 16-17

**Environmental Geology Concentration:**

Sophomore Year, Second Semester  
~~GEOL 2500 – Geological Fundamentals Credit: 3.~~  
**GEOL 2600 Geosciences Career Preparation Credit: 3**  
Humanities/Fine Arts Elective Credit: 3.  
PHYS 2020 - Algebra-based Physics II Credit: 4. or  
BIOL 3130 - General Ecology Credit: 4.  
Required Course from Environmental Geology Concentration Credit:  
3-4.  
Total: 13-14

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried.

**9. Curriculum & Instruction**

**A. Curriculum/Catalog Changes.**

**1. Multidisciplinary Studies, English as a Second Language, B.S.**

Sophomore Year, First Semester

**From:**

MATH Elective (credit 3)

**To:**

**SPED 2010. Introduction to Special Education (credit 3)**

Junior Year, First Semester

**From:**

ECED 3600. Families, Communities, & Professionals (credit 2)

SPED 3050. Universal Design for Special Education (credit 5)

ENGL 4511(5511). Introduction to Descriptive Linguistics (credit 3) OR

LING 4511(5511). Introduction to Descriptive Linguistics (credit 3)

OR

TEAE 4500. (credit 3)

Total credit hours: 19

**To:**

FOED 3810. Field Experiences in Education (credit 1-2. Two credit hours required)

READ 3315. Foundations of Literacy for Exceptional Learners (credit 7)

Total credit hours: 18

#### Junior Year, Second Semester

**From:**

FOED 3810. Field Experiences in Education (credit 1-2. Two credit hours required)

READ 3313. Literacy for Special Populations (credit 5)

Total credit hours: 15

**To:**

SPED 3050. Universal Design for Special Education (credit 5)

ENGL 4511(5511). Introduction to Descriptive Linguistics (credit 3) OR

LING 4511(5511). Introduction to Descriptive Linguistics (credit 3) OR

TEAE 4500. (credit 3) OR

ESOL 4400. Foundations of Language for ESOL Educators (credit 3)

Total credit hours: 16

#### B. Course/Catalog Changes and Course Addition

**1. From:**

SPED 3020. Characteristics and Needs of Persons with Comprehensive Disabilities Lec. 3. Credit 3.

Prerequisite: SPED 2010, SPED 3050 and full admission to the Teacher Education Program. Corequisite: FOED 3850. Provide an intensive study into the various types of low incidence disabilities. In addition to the characteristics of these disabilities, students will explore a broad range of research-based teaching strategies and techniques for working with this population using systematic data-driven instruction. A minimum grade of B is required to meet degree requirements for licensure candidates.

**To:**

SPED 3020. Characteristics and Needs of Persons with Comprehensive Disabilities Lec. 3. Credit 3.

Prerequisite: SPED 2010 and full admission to the Teacher Education Program. Corequisite: FOED 3850. Provide an intensive

study into the various types of low incidence disabilities. In addition to the characteristics of these disabilities, students will explore a broad range of research-based teaching strategies and techniques for working with this population using systematic data-driven instruction. A minimum grade of B is required to meet degree requirements for licensure candidates.

**Delete:** Prerequisite of SPED 3050.

**2. From:**

SPED 3030. Specific Learning Disabilities Lec. 3 Credit 3.  
Prerequisite: SPED 2010, SPED 3050 and full admission to the Teacher Education Program. Corequisite: FOED 3850. History and background of identification of specific learning disabilities, the characteristics of specific learning disabilities, diagnostic criteria, current Federal and state laws and policies, the role of Response to Intervention and Multi-Tiered Systems of Support, and designing data-based individualized instruction. A minimum grade of B is required to meet degree requirements for licensure candidates.

**To:**

SPED 3030. Specific Learning Disabilities Lec. 3 Credit 3.  
Prerequisite: SPED 2010 and full admission to the Teacher Education Program. Corequisite: FOED 3850. History and background of identification of specific learning disabilities, the characteristics of specific learning disabilities, diagnostic criteria, current Federal and state laws and policies, the role of Response to Intervention and Multi-Tiered Systems of Support, and designing data-based individualized instruction. A minimum grade of B is required to meet degree requirements for licensure candidates.

**Delete:** Prerequisite of SPED 3050.

**3. From:**

SPED 4400. Individualized Student Planning Lec. 3. Credit 3.  
Prerequisite: Full admission to the Teacher Education Program; SPED 3030 and SPED 3050. Corequisite: SPED 4872. Intensive study of the educational process that includes writing appropriate Individual Education Plans (IEP) to meet individuals needs of a student who receives special education services in the

public schools. A minimum grade of B is required to meet the requirements for licensure candidates.

**To:**

SPED 4400. Individualized Student Planning Lec. 3. Credit 3.  
Prerequisite: Full admission to the Teacher Education Program.  
Intensive study of the educational process that includes writing appropriate Individual Education Plans (IEP) to meet individuals needs of a student who receives special education services in the public schools. A minimum grade of B is required to meet the requirements for licensure candidates.

**Delete:** Prerequisite: SPED 3030 and SPED 3050. Corequisite: SPED 4872

**Course Addition**

4. READ 1150. College Reading Advancement Lec. 0-3. Credit 0-3.  
Advancement of reading skills includes vocabulary, spelling, comprehension, rate, main idea, supporting details, organization and relationships, and critical and strategic reading.

**C. Curriculum/Catalog Changes**

**1. Special Education, Comprehensive/Interventionist Concentration, B.S.**

Second Semester Junior Year

**From:**

SPED 4100. Collaboration and Inclusive Practice (credit 3)

**To:**

SPED 4400. Individualized Student Planning (credit 3)

First Semester Senior Year

**From:**

SPED 4400. Individualized Student Planning (credit 3)

**To:**

SPED 4100. Collaboration and Inclusive Practice (credit 3)

**2. Special Education Interventionist for Secondary Education Concentration, B.S.**

Second Semester Junior Year

**From:**

SPED 4100. Collaboration and Inclusive Practice (credit 3)

**To:**

SPED 4400. Individualized Student Planning (credit 3)

First Semester Senior Year

**From:**

SPED 4400. Individualized Student Planning (credit 3)

**To:**

SPED 4100. Collaboration and Inclusive Practice (credit 3)

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried.

## **10. Exercise Science, Physical Education & Wellness**

### **A. Addition of New Courses.**

1. PHED 1575 – Indoor Cycling/Spin. Credit 1.  
This is an introductory course designed to introduce students to indoor cycling, also known as spin. Safety procedures will be stressed for successful operation of the spin bike. Endurance, strength and power will be targeted with interval spinning.
2. EXPW 3420 – Organization & Oversight. Lec.3. Credit 3.  
Prerequisite: Exercise Science major with concentration in Sport Performance  
This course is designed for students to learn the principles and ACSM guidelines involved in the development, organization and administration of a sports and fitness facility.
3. EXPW 4105 –Issues in Sport Performance. Lec.3. Credit 3.  
An introduction to the critical questions that explore relationships between the performance coach, medical staff, sport coach, and athletes. Current sport-related controversies regarding coaching philosophies, values, and ethics are examined to enhance communication and decision making in sport and athletic performance setting.
4. EXPW 4110 – Tactical Populations. Lec.3. Credit 3.  
This course examines the demands and challenges of increasing human performance within the context of military, law enforcement, fire, rescue, and emergency medical personnel. Improved performance within various fields will be the basis of study.
5. EXPW 4995 – Sport Science and Performance. Lec.3. Credit 3.



Prerequisite: Senior Standing and completion of EXPW 4730 with grade of B or better. This course is directed to methods of research and practice related to sport science and sport performance and review of pertinent primary literature in the field.

6. EXPW 4850 –Sport Performance Internship. Credit 6.  
Prerequisite: Senior status. Completion of 300 hours is required in an approved sport performance setting. Regular reporting required.
7. EXPW 4855 –Sport Performance Internship. Credit 9.  
Prerequisite: Senior status. Completion of 450 hours is required in an approved sport performance setting. Regular reporting required.

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried.

#### **B. Program Name Change**

When the department and program changed from Health and Physical Education to Exercise Science, Physical Education and Wellness, it was the belief of the faculty that the long name was necessary to provide adequate identification for the program. From that name came "EXPW". Though the course of the years, Exercise Science, Physical Education and Wellness has been misinterpreted and caused more of an identity issue for the department and the program than anyone could have predicted. Potential students and current students as well as university administrators and the general public often misunderstand and/or misinterpret the long name, calling the program Exercise Science and Physical Wellness or other. Because the concentrations within the department and program fall under Exercise Science, we request to change the name of the program (and department) from Exercise Science, Physical Education and Wellness to Exercise Science. This change will provide a much clearer understanding for students and families and will help in promoting/marketing the program.

The department proposes the program name of Exercise Science, Physical Education and Wellness be changed to Exercise Science.

Phase out date of all programs under the Exercise Science, Physical Education and Wellness title will be May 2027.

Effective Date: Fall 2023

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried.

#### **C. Addition of New Concentration**

EXPW is requesting to establish a new concentration within Exercise Science. Many students come to them seeking education, training and certification in the

area of strength and conditioning, which is a big part of sport performance. Currently, students seeking strength and conditioning are part of the fitness and wellness concentration, but very little of the coursework is specifically dedicated to educational needs of a potential strength coach. Nutrition, recovery, program design, organization and oversight, exercise prescription and more will be included in the sport performance concentration, with the goal of preparing students for quality internship experiences as well as to sit for the CSCS or other certification exam. Additionally, in preparation for the Sport Performance concentration, they have investigated a new and upcoming accreditation possibility through NSCA (National Strength & Conditioning Association). It is the belief of the departmental faculty that creation of this concentration will draw students that want to be in that profession as well as provide a more stable and robust pathway to internships, certifications and future employment than we currently provide. The Sport Performance concentration contributes to the overall program by providing a more direct preparation in a much sought-after career path within Exercise Science. Students who complete this concentration will also have a minor in Sport Administration.

Courses in this concentration will include:

General Education requirement - 41

Program Core - 20 or 21

Concentration - 49 or 52

Electives - 9 or 12

Effective Date: Fall 2023

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried.

#### **D. Deletion of Courses**

1. EXPW 3000 – Professional Development and Career Planning Lec.1. Credit 1.  
This course has never been taught. Content is very similar to EXPW 3310.
2. EXPW 3560 – Techniques and Tactics of Sports. Lec.1. Lab.2. Credit 2.  
This course was replaced by EXPW 3565.
3. EXPW 4210 – Gerontology Lec.3. Credit 3.  
This course is no longer listed on any program of study and has not been taught in many years.
4. EXPW 4711 – Analysis and Development of Sport Skills. Lec.2. Lab.2. Credit 4.  
This course was replaced by EXPW 4712.

5. EXPW 4721 – Methods of Elementary Movement. Lec.2. Lab. 2. Credit 4.  
This course was replaced by EXPW 4722.
6. EXPW 4873 – Professional Seminar I. Lec.3. Credit 3.  
This course was replaced by EXPW 4874.

#### E. Course Name Change

##### 1. From:

EXPW 4442 - Advanced Exercise Physiology. Lec.3. Credit 3.

Prerequisite: EXPW 4440 with grade of B or better. This course is the study of the immediate and long-term effects of physical activity on the acute and chronic effects of physical activity on body systems with regard to the neuromuscular, energy, respiratory and cardiovascular systems with reference to exercise evaluation and prescription.

##### To:

EXPW 4442 - **Performance/Recovery in Sport**. Lec.3. Credit 3.

Prerequisite: EXPW 4440 with grade of B or better. This course is designed to investigate the importance of recovery for performance in sport and exercise. The causes of acute and chronic fatigue are addressed and scientific-based recovery strategies and modalities are examined to maximize training adaptations and competition performance.

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried

#### 11. Biology

##### A. Course Addition/Course Deletion/Curriculum Changes.

###### Course Addition:

1. **WFS BIOL 3550 – Wildlife Damage Management**  
**Lec. 3. Credit 3.**  
**Prerequisite: Junior Standing.**  
**Introduction to the principles and practices of wildlife damage management.**

###### Course Deletion:

2. BIOL 1000 – Introduction to Biological Methods

###### Course Changes:

3. Program Changes Biology

A. Remove BIOL 1000 (Introduction to Biological Methods) as a required course from the following concentrations: Botany,

Cellular & Molecular Biology, Marine Biology, Microbiology, and Zoology. Only one section of BIOL 1000 is taught per semester, and the offering is insufficient to meet the demand of all of our majors. Increase elective credits by 1 hour.

- B. Allow BIOL 3230 (Health Science Microbiology) to serve as an option, in addition to BIOL 3200 (General Microbiology), in the Cellular & Molecular Biology Concentration; this has become a routine substitution in the curriculum because of scheduling conflicts and limited seats in BIOL 3200.
- C. Allow BIOL 2010 (Human Anatomy and Physiology I) to serve as an option, in addition to BIOL 4320 (Plant Physiology) or BIOL 3530 (Animal Physiology), in the Cellular & Molecular Biology Concentration; this has become a routine substitution in the curriculum because of scheduling conflicts and because BIOL 4320 and BIOL 3530 are not offered every semester.

#### Program Changes WFS

- A. Remove BIOL 1000 (Introduction to Biological Methods) as a required course from all three WFS concentrations because only one section is taught per semester, and the offering is insufficient to meet the demand of all of our majors. Increase elective credits by 1 hour.
- B. Allow BIOL 3100 (Genetics, TN eCampus Course) to serve as an option, in addition to BIOL 3810 (General Genetics), in all three concentrations; this has become a routine substitution in the curricula because of scheduling conflicts.
- C. Add the following courses to the list of directed electives in the WFSC concentration: AGRN 2000 (Soil and the Environment), ESS 4100 (National Parks and Protected Public Lands), and ESS 4110 (Human Dimensions of Natural Resources) to provide more flexibility.
- D. Add the following courses to the list of directed electives for the WFSW concentration: AGRN 2000 (Soil and the Environment), ESS 4100 (National Parks and Protected Public Lands), ESS 4110 (Human Dimensions of Natural Resources), and WFS 3550 (Wildlife Damage Management) to provide more flexibility.

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried.

#### B. Program Changes

## 1. Environmental Biology Concentration of the Biology B.S. degree

- A. Remove BIOL 1000 (Introduction to Biological Methods) as a required course. Only one section of BIOL 1000 is taught per semester, and the offering is insufficient to meet the demand of all of our majors. Increase elective credits by 1 hour.
- B. Change the math requirement to MATH 1710 (Pre-calculus Algebra), MATH 1530 (Introductory Statistics), and either MATH 3070 (Statistical Methods I) or BIOL 4220 (Biostatistics). The only actual change is removing MATH 1830 (Applied Calculus) as an option instead of MATH 1530 which is a better preparatory course for MATH 3070 or BIOL 4220. The footnote concerning the math requirement will be removed from the catalog listing, and required math courses will be inserted during the preferred semesters that they should be taken.
- C. Remove GEOL 2000 as an option to GEOL 1045 (Earth Environment, Resources and Society). GEOL 2000 is no longer being taught and has been removed from other Biology and WFS programs.
- D. Remove PHYS 2010 as a required class. This course is less useful for students majoring in this concentration than the directed electives listed below.
- E. Increase the number of directed electives from one to three. Add the following courses to the list of directed electives: AGRN 3000 (Soils), GEOG 3200 (Water Resources), GEOG 4410 (Remote Sensing), WFS 4730 (Conservation Biology), and either GEOG 4510 (Theory of GIS I) or WFS 4870 (GIS for Wildlife and Fisheries). These courses will provide more flexibility for students to select courses that better align with their career goals.
- F. Remove CHEM 4500 (Nutritional Biochemistry) as an option to ESS 3710 (Chemistry and the Environment). ESS 3710 is a more appropriate course for this concentration.
- G. Change the number of general elective hours from 6-7 hours to 3-6 hours, dependent upon which directed electives are taken.
- H. Change the sequence in which courses are recommended to be taken (See attached files) to better reflect a realistic program of study.

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried

## 12. Decision Sciences & Management

### A. Addition of New Minor.

The Department of Decision Sciences and Management would like to offer students the opportunity to earn a Minor in Operations, Logistics, and Supply Chain Management. Students may earn this minor by completing 15 hours from the following courses:

Required: DS 3520 – Operations, Logistics, & SCM (3)  
(Operations, Logistics, and Supply Chain Management)

DS 3530 – Advanced Op, Logistics & SCM (3)  
(Advanced Operations, Logistics, and Supply Chain Management)

Three classes from:

ACCT 3210 Cost Accounting (3)  
DS3540 Quality and Productivity Systems (3)  
DS4530 Operations, Logistics, & SCM (3)  
BMGT3630 Human Resource Management (3)  
DS3400 Internship: Op, Logist, & SCM (3)  
MET4650 Lean Six Sigma Manufacturing (3)

Effective Date: Fall 2023

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried.

**B. Concentration Name Change**

The Department of Decision Sciences and Management would like change the concentration name:

**From:**

Production & Operations Concentration

**To:**

Operations, Logistics, and Supply Chain Management.

Effective Date: Fall 2023

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried.

**C. Course Changes/Course Additions/Curriculum Changes.**

**1. From:**

DS3520 – Operations Management Lec. 3. Credit 3.

Prerequisite: ECON 3610 and Junior standing. Management of the processes, resources, and technologies in the production of goods and services.

**To:**

DS3520 – Operations, Logistics, & SCM Lec. 3. Credit 3.  
Prerequisite: ECON 3610. This course is an introductory survey of the basic concepts and principles of the management of operations, supply chain and logistics. It covers the management of the processes, resources, and technologies in the production, transportation and distribution of goods and services.

### Course Additions

2. DS3400 – Internship: Op, Logist, & SCM Lec. 3. Credit 3.  
Prerequisite: DS3520 and consent of Department Chairperson. A directed professional experience in the field of Operations, Logistics, and/or Supply Chain Management.
3. DS3530 – Advanced Op, Logistics & SCM Lec. 3. Credit 3.  
Prerequisite: DS3520. This course will build upon the foundations and the basic concepts from the introductory DS 3520 course. The advanced topics that will be covered in this course include operations and supply chain strategies and the design, modeling, simulation, and optimization of the transportation and distribution networks.
4. DS4530 – Op, Logistics & SCM Capstone Lec. 3. Credit 3.  
Prerequisite: DS3530. This course provides an experiential learning opportunity for students to apply the concepts, tools and techniques used in operations, logistics, and supply chain management to real-life organizational situations. Students will complete projects under the supervision of a faculty advisor and make a presentation to organizational representatives.

### Curriculum Changes

#### Production & Operations (BUPR) Concentration

5. Add required classes
  - a. DS3530 – Advanced Op, Logistics & SCM  
(Advanced Operations, Logistics, and Supply Chain Management)
  - b. DS4530 – Op, Logistics & SCM Capstone  
(Operations, Logistics, and Supply Chain Management Capstone)
6. Remove required classes
  - a. MET Electives (6 hours)

Existing BUPR Concentration	Proposed BUPR Concentration
General Education Requirements (44 hours) Business Core (39 hours) Concentration Requirements (37 hours) <ul style="list-style-type: none"> <li>• ACCT 3210 Cost Accounting</li> <li>• BMGT3630 Human Resource Management</li> <li>• BMGT4410 Conflict Management and Negotiation</li> <li>• DS3540 Quality and Productivity Systems</li> <li>• DS or BMGT Electives (6 hours)</li> <li>• MET Electives (6 hours)</li> <li>• Business Elective (3 hours)</li> <li>• General Electives (10 hours)</li> </ul>	General Education Requirements (44 hours) Business Core (39 hours) Concentration Requirements (37 hours) <ul style="list-style-type: none"> <li>• ACCT 3210 Cost Accounting</li> <li>• BMGT3630 Human Resource Management</li> <li>• BMGT4410 Conflict Management and Negotiation</li> <li>• DS3530 Advanced Op, Logistics &amp; SCM</li> <li>• DS3540 Quality and Productivity Systems</li> <li>• DS4530 Op, Logistics &amp; SCM Capstone</li> <li>• DS, BMGT, or MET Electives (6 hours)</li> <li>• Business Elective (3 hours)</li> <li>• General Electives (10 hours)</li> </ul>

**Motion to approve.** Julie Baker  
**Second.** Lisa Zagumny  
**Vote.** Motion carried.

**13. Mathematics**

**A. Addition of New Courses.**

1. **MATH 1904: Extended Calculus IA. Lec.3. Recitation 1. Credit 3.**  
 Prerequisite: ACT mathematics score of 27 or above and four years of high school mathematics including algebra, geometry, trigonometry, and advanced or pre-calculus mathematics; or special permission of the Mathematics Department; or C or better in Math 1730; or C or better in Math 1720 and Math 1710; or equivalent.  
 Course Description: Limits, continuity, and derivatives of functions of one variable with applications. Completion of both Math 1904 and Math 1906 is equivalent to completion of Math 1910.  
 Credit Restriction: Completion of both Math 1904 and Math 1906 is equivalent to completion of Math 1910. Students will not be given credit for Math 1904 and Math 1910.
  
2. **MATH 1906: Extended Calculus IB. Lec.3. Recitation 1. Credit 3.**  
 Prerequisite: C or better in Math 1904 (Extended Calculus 1A).  
 Course Description: Limits, continuity, derivatives and integrals of functions of one variable with applications. Completion of both Math 1904 and Math 1906 is equivalent to completion of Math 1910.  
 Credit Restriction: Completion of both Math 1904 and Math 1906 is equivalent to completion of Math 1910. Students will not be given credit for Math 1906 and Math 1910.

**Motion to approve.** Julie Baker  
**Second.** Lisa Zagumny  
**Vote.** Motion carried.



## 14. English

### A. **Addition of New Certificate**

The English department is proposing to create a Certificate in Editing and Publishing in the College of Arts and Sciences:

#### **Certificate in Editing and Publishing (18 Credit Hours)**

Core Courses (6 credit hours)<sup>1</sup>

ENGL 4460 (5460 pending), Lit. Mag Editing/Iris Review (Credit: 3)

PC 4940 (5940), Technical Editing (Credit: 3)

Publishing Internship (3 credit hours):

PC 4850 (5850), Internship (Credit: 3) or

ENGL 4990 (5990), Internship (Credit: 3)

Elective Courses (9 credit hours from the list below):

JOUR 4710 (5710), Literary Journalism (Credit: 3)

JOUR 4830 (5830), Feature Writing (Credit: 3)

JOUR 4930 (5930), Advanced Copy Editing (Credit: 3)<sup>2</sup>

ENGL 4430 (5430), Creative Writing: Fiction (Credit: 3)

ENGL 4440 (5440), Creative Writing: Essay (Credit: 3)

ENGL 4450 (5450), Creative Writing: Poetry (Credit: 3)

PC 4990 (5990): Grant and Business Proposal Writing (Credit: 3)

ENGL 4983 (5983): Topics in English (Credit: 3)

ENGL/PC 4950 (5950): Topics in PC (Credit: 3)

ENGL 4470 (5470): Topics in Advanced Creative Writing (Credit: 3)<sup>3</sup>

Under the direction of a certificate advisor, students will complete an e-Portfolio that includes at least four sample projects from courses they completed (such as an edited manuscript taken through several stages, a grant or business proposal intended for a publishing project, or an editorial statement) and their internship critical reflection, including a discussion about how the student plans to apply knowledge gained through the Certificate to diverse audiences and communication contexts. Students will upload these documents to a non-University site so that their work will be accessible following graduation. Each student will arrange to present their e-Portfolio to their peers during the last semester in which they are taking an ENGL or PC course required to complete the Certificate, in consultation with the Certificate advisor.

#### **Student Learning Outcomes**

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<sup>1</sup> Prerequisites for PC 4940 (5940) and ENGL 4460 (5460) may be waived by the course instructor on a case by case basis.

<sup>2</sup> Prerequisites for JOUR 4710 (5710), 4830 JOUR (5830), and JOUR 4930 (5930) may be waived by the course instructor on a case by case basis.

<sup>3</sup> Topics courses ENGL 4983 (5983), ENGL/PC 4950 (5950), and ENGL 4470 (5470) count toward the Certificate credit requirement with approval of the Certificate advisor and when at least 50% of course content is related to editing or publishing.

The English Department has defined student learning outcomes for the Certificate in Editing and Publishing and has committed to developing assessment methods and thresholds, as follows:

1. Students will demonstrate that they can recognize and follow industry conventions according to the appropriate professional, technical, or literary audience.
2. Students will investigate existing professional opportunities through hands-on work in print and digital editing and publishing fields and use their observations to assess potential entrepreneurial job paths.
3. Students will curate and present e-portfolios which highlight their work for professional contexts.

Effective: Fall 2023

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried.

## 15. Chemistry

### A. Program Changes.

The department is proposing to change the Physics requirement for the Chemistry concentrations listed below from Algebra-based Physics 1 & 2 (PHYS 2010 & 2020) to Algebra-based or Calculus-based Physics 1 (PHYS 2010 or 2110) and Algebra-based or Calculus-based Physics 2 (PHYS 2020 or 2120).

- Biochemistry
- Business Chemistry
- Custom Chemistry
- Environmental Chemistry
- Forensic Chemistry
- Health Science Chemistry
- Industrial Chemistry

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried.

## 16. Computer Science

### A. Prerequisite Changes.

1. CSC 3300- Database Mgmt Systems

**From:**

Prerequisite: C or better in CSC 1310; and either CSC 2700 or ECE 2110.

**To:**

Prerequisite: C or better in CSC 1310; and either CSC 2700 or **ECE 2140**.

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried.

## 17. Electrical & Computer Engineering

### A. **Addition of New Concentration.**

The department is proposing the creation of the BSCmpE Hardware and System Security concentration. Society is increasingly dependent on computer-based, interconnected systems used in consumer products, industry, defense, and national infrastructure. Securing these systems requires security expertise in both software and hardware domains. This concentration addresses the need for graduates with knowledge and skills in the area of hardware and system security. With its focus on hardware security it complements the existing software security offerings by computer science.

#### **Freshman Year**

##### *First Semester*

ENGL 1010	English Composition I	3
MATH 1910	Calculus I	4
CHEM 1110	General Chemistry I	4
ECE 1000	Explorations in Electrical and Computer Engineering	3
	Hum/Fine Arts Elective <sup>1</sup>	3
	<b>Total</b>	<b>17</b>

##### *Second Semester*

ENGL 1020	English Composition II	3
MATH 1920	Calculus II	4
CSC 1300	Intro. to Problem Solving & Computer Programming	4
ECE 2140	Intro. to Digital Systems	4
	<b>Total</b>	<b>15</b>

#### **Sophomore Year**

##### *First Semester*

	Literature <sup>1</sup>	3
MATH 2120	Differential Equations	3
MATH 2010	Intro. to Linear Algebra	3
CSC 1310	Data Structures & Algorithms	4

ECE 2050	Circuits and Electronics I	4
	<b>Total</b>	<b>17</b>

*Second Semester*

	Communication <sup>1</sup>	3
MATH 2610	Discrete Structures or	
CSC 2700	Discrete Structures for Computer Science	3
CSC 2400	Design of Algorithms	3
ECE 3050	Circuits and Electronics II	4
PHYS 2110	Calculus-based Physics I	4
	<b>Total</b>	<b>17</b>

**Junior Year**

*First Semester*

ECE 3130	Microcomputer Systems	4
PHYS 2120	Calculus-based Physics II	4
ECE 3330	Signals and Systems	4
ECE 3140	Digital System Design	3
	<b>Total</b>	<b>15</b>

*Second Semester*

ECE 3920	Professional Issues in ECE	1
MATH 3470	Introductory Probability and Statistics	3
CSC 4200	Computer Networks	3
CSC 4575	Cryptography and Network Security	3
ECE 3150	Intro to Hardware Security	3
	Hum/Fine Arts Elective <sup>1</sup>	3
	<b>Total</b>	<b>16</b>

**Senior Year**

*First Semester*

ECE 4961	Capstone Design I	3
ECE 4140	Embedded System Design	3
ECE 4150	Cyber-Physical Hdwr Security	3
	CmpE Hardware and System Security Concentration Elective <sup>2</sup>	3
	Soc/Beh Science Elective <sup>1</sup>	3
	<b>Total</b>	<b>15</b>

*Second Semester*

ECE 4971	Capstone Design II	3
ECE 4120	Fundamentals of Computer Design	3
ECE 4830 CSC 4240	Machine Learning App in ECE or Artificial Intelligence	3
	CmpE Hardware and System Security Concentration Elective <sup>2</sup>	3
	Soc/Beh Science Elective <sup>1</sup>	3
	Elective	1
	<b>Total</b>	<b>16</b>

<sup>1</sup> Select from University approved list.

<sup>2</sup> Select from ECE Department approved list.

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried.

**B. Addition of New Courses.**

1. **ECE 3150 - Intro to Hardware Security Lec. 3. Credit 3.**  
Prerequisite: C or better in either ECE 3130 or CSC 3410.  
Background knowledge of Electronics and System on Chip, Hardware Trojans, Electronics Supply Chain, Side Channel Attacks, Countermeasures against Hardware Attacks, Hardware Security Primitives.
2. **ECE 4150 (5150) - Cyber-Physical Hdwr Security Lec. 3. Credit 3.**  
Prerequisite: C or better in CSC 1310, C or better in ECE 3150.  
Topics in Cyber-Physical System (CPS) hardware security, including Internet of Things (IoT), Smart Grid, Vehicular ad-hoc

Network (VANet), Autonomous Vehicles, Artificial Intelligence of Things (AIoT).

3. ECE 4830 (5830) - Machine Learning App in ECE Lec. 3. Credit 3.  
Prerequisite: C or better in either CSC 1300 or ENGR 1120, C or better in MATH 2010, C or better in MATH 3470.  
Fundamentals of machine learning with emphasis on practical applications to electrical and computer engineering problems. Supervised learning (linear and logistic regression, decision trees, and neural networks), unsupervised learning.

### Course Changes

#### 4. From:

ECE 4971 - Capstone Design II

Lec. 2. Lab. 4. Credit 3.

Prerequisite: ECE 4961.

The second in a sequence of two senior capstone design project courses. Student teams will complete a comprehensive system design project. Teamwork, leadership, project planning and management, specification, budgeting, design review, implementation, testing, weekly reporting, documentation, and oral presentation.

#### To:

ECE 4971 - Capstone Design II

Lec. 2. Lab. 4. Credit 3.

Prerequisite: C or better in ECE 4961.

The second in a sequence of two senior capstone design project courses. Student teams will complete a comprehensive system design project. Teamwork, leadership, project planning and management, specification, budgeting, design review, implementation, testing, weekly reporting, documentation, and oral presentation.

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried.

### 18. General & Basic Engineering

#### A. Prerequisite/Credit Changes.

##### 1. From:

ENGR 2100. Introduction to Engineering Communication. Lab 2.

Credit 1.

Prerequisite: Minimum grade of C in ENGL 1020; ENGR 1110 or ENGR 1210 or consent of instructor.

**To:**

ENGR 2100. Introduction to Engineering Communication. Lab 2.  
Credit 1.

Prerequisite: **Minimum grade of C in ENGL 1010**; ENGR 1110 or ENGR 1210 or consent of instructor.

**2. From:**

ENGR 1300. Introduction to Engineering Computations. Lec. 1. Lab 2.  
Credit 2.

Prerequisite: ACT Math score of 24 or higher, or equivalent placement exam score; or C or better in MATH 1130 or MATH 1710 or equivalent.

**To:**

ENGR 1300. Introduction to Engineering Computations. **Lec. and Lab 3. Credit 2.**

Prerequisite: **C or better in MATH 1710 or equivalent or consent of instructor.**

**3. From:**

ENGR 4950. Senior Design I. Lec. 2. Lab 4. Credit 3.

Prerequisite: ECE 2020, ME 3023, ME 3210 and Senior Standing.

The first is a sequence of two capstone design project courses.

Student teams will complete an industry client-driven system design project. Teamwork, leadership, project planning and management, specification, budgeting, design review, subsystem development, testing, weekly reporting, documentation, and oral presentation.

**To:**

ENGR 4950. Senior Design I. Lec. 2. **Lab 2.** Credit 3.

Prerequisite: **ECE 2140**, ME 3023, ME 3210 and Senior Standing.

The first is a sequence of two capstone design project courses.

Student teams will complete an industry client-driven system design project. Teamwork, leadership, project planning and management, specification, budgeting, design review, subsystem development, testing, weekly reporting, documentation, and oral presentation.

**Course Deletions**

4. ENGR 1310 Excel and Visual Basic for Engineers
- ENGR 2810 Electrical Engineering Fundamentals I
- ENGR 2820 Electrical Engineering Fundamentals II
- ENGR 2821 Electrical Engineering Fundamentals Lab

**Curriculum Changes**

Change in Basic Engineering (BE) Curriculum

**From:**

The current BE Program has the following catalog listing:

Freshman Year

- CHEM 1110 - General Chemistry I Credit: 4.
- CSC 1300 - Introduction to Problem Solving and Computer Programming Credit: 4.<sup>1</sup>
- ENGR 1110 - Engineering Graphics Credit: 2.<sup>1</sup>
- ENGR 1120 - Programming for Engineers Credit: 2.<sup>1</sup>
- ENGR 1210 - Introduction to Engineering Credit: 1.<sup>1,2</sup>
- ENGL 1010 - English Composition I Credit: 3.
- ENGL 1020 - English Composition II Credit: 3.
- MATH 1910 - Calculus I Credit: 4.
- MATH 1920 - Calculus II Credit: 4.
- Humanities/Fine Arts Electives and/or Social/Behavioral Science Electives Credit: 6
- PHYS 2110 - Calculus-based Physics I Credit: 4.<sup>1</sup>

Total: 33-35

Notes:

<sup>1</sup>Students should consult with their advisor prior to taking ENGR 1110, ENGR 1120, ENGR 1210, CSC 1300, or PHYS 2110 to ensure the courses are applicable to the Engineering disciplines in which the student has potential interest.

<sup>2</sup>This course not included in 128-hour curriculum.

**To:**

Freshman Year

- CHEM 1110 - General Chemistry I Credit: 4.
- **CHEM 1120 - General Chemistry II Credit: 4.**
- **CSC 1200 - Principles of Computing Credit: 3.**
- CSC 1300 - Introduction to Problem Solving and Computer Programming Credit: 4.
- **ENGR 1000 - Introduction to Engineering Analysis Credit: 3.**
- ENGR 1110 - Engineering Graphics Credit: 2.
- ENGR 1120 - Programming for Engineers Credit: 2.
- ENGR 1210 - Introduction to Engineering Credit: 1.
- **ENGR 1300 - Introduction to Engineering Computations Credit: 2.**
- **ENGR 2100 - Introduction to Engineering Communications Credit: 1.**
- ENGL 1010 - English Composition I Credit: 3.
- ENGL 1020 - English Composition II Credit: 3.
- **MATH 1710 - Pre-Calculus Algebra Credit: 3.**
- **MATH 1720 - Pre-Calculus Trigonometry Credit: 3.**
- **MATH 1904 – Extended Calculus IA Credit: 4**



- **MATH 1906 – Extended Calculus IB Credit: 3**
- MATH 1910 - Calculus I Credit: 4.
- MATH 1920 - Calculus II Credit: 4.
- Humanities/Fine Arts Electives and/or Social/Behavioral Science Electives Credit: 6
- PHYS 2110 - Calculus-based Physics I Credit: 4.

Students will not take all the listed courses. Typically, the total will be 32-34 credit hours. Students should consult with their advisors to determine which specific courses to take. Some courses may not be included in the 128-hour curriculum of some degree programs.

*Friendly Amendment: Add MATH 1904 and MATH 1906 as an option to take for the revised curriculum.*

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried.

## 19. Mechanical Engineering

### A. Prerequisite Changes.

#### 1. From:

ME 3023: Measurements in Mechanical Systems Lec. 2 Lab. 2 Cr. 3.

Prerequisites: ECE 2850, PHYS 2120 (or ECE 2011 and PHYS 2119) and CEE 3110 (CEE 3110 may be taken concurrently).

Principles of measurement and calibration; basic instrumentation and measurement techniques in mechanical systems.

#### To:

ME 3023: Measurements in Mechanical Systems Lec. 2 Lab. 2 Cr. 3.

**Prerequisites: ECE 2850 or ECE 2050, PHYS 2120 and CEE 3110 (CEE 3110 may be taken concurrently).**

Principles of measurement and calibration; basic instrumentation and measurement techniques in mechanical systems.

#### 2. From:

ME 4370: Mechatronics and Intelligent Machines Engineering Lec. 2 Lab. 2 Cr. 3.

Prerequisites: ECE 2010, PHYS 2121 (or ECE 2011 for ME Mechatronics Concentration); ME 3050 and ME 3060.

Mechatronics; number systems; microcontroller technology and architecture of 8-bit microcontrollers (e.g. Motorola MC68H110), assembly language programming, A/D and D/A conversion, parallel I/O; programmable timer operation, interfacing sensors and actuators, applications, and team project on design and implementation of a mechatronic system.

#### To:

ME 4370: Mechatronics and Intelligent Machines Engineering  
Lec. 2 Lab. 2 Cr. 3.

Prerequisites: ECE 2050 or ECE 2850; ME 3050 and ME 3060.

Mechatronics; number systems; microcontroller technology and architecture of 8-bit microcontrollers (e.g. Motorola MC68H110), assembly language programming, A/D and D/A conversion, parallel I/O; programmable timer operation, interfacing sensors and actuators, applications, and team project on design and implementation of a mechatronic system.

**3. From:**

ME 4730: Numerical Heat Transfer Lec. 3 Cr. 3.

Prerequisites: ECE 2010, PHYS 2121 (or ECE 2011 for ME Mechatronics Concentration); ME 3050 and ME 3060.

Fundamentals of numerical methods; steady and unsteady one-dimensional heat conduction; steady and unsteady multidimensional heat conduction; fully-developed duct flows; one- and two-dimensional convection heat transfer, and flow through porous media.

**To:**

ME 4730: Numerical Heat Transfer Lec. 3 Cr. 3.

Prerequisites: ME 3710, ME 3720.

Fundamentals of numerical methods; steady and unsteady one-dimensional heat conduction; steady and unsteady multidimensional heat conduction; fully-developed duct flows; one- and two-dimensional convection heat transfer, and flow through porous media.

**4. From:**

VE 3500: Sensors, Transducers and Instrumentation

Lec. 2 Lab. 2 Cr. 3.

Prerequisite: ECE 2850; PHYS 2120; consent of instructor.

Introduction to sensors used in vehicles including: oxygen, tire pressure, emission, temperature, blind spot monitoring, etc. Focus on principles of measurements, theory of instruments and sensors for measuring typical physical quantities in mechanical and electrical systems. Calibration, measurement uncertainty and noise.

**To:**

VE 3500: Sensors, Transducers and Instrumentation

Lec. 2 Lab. 2 Cr. 3.

Prerequisite: ECE 2850 or ECE 2050; PHYS 2120. Introduction to sensors used in vehicles including oxygen, tire pressure, emission, temperature, blind spot monitoring, etc. Focus on principles of measurements, theory of instruments and sensors for measuring

typical physical quantities in mechanical and electrical systems. Calibration, measurement uncertainty and noise.

**5. From:**

VE 4100: Senior Design Project I                      Lec. 2 Lab. 2 Cr. 3.  
Prerequisite: VE 3400; senior standing in engineering; consent of instructor. Principles of vehicle engineering design with emphasis on contemporary industrial design processes and engineering economics with applications in product design. Development phase for capstone team design project in vehicle engineering: preliminary design, supporting analyses and drawings with bill of materials.

**To:**

VE 4100: Senior Design Project I                      Lec. 2 Lab 2 Cr. 3.  
Prerequisite: VE 3400, **and consent of instructor**; senior standing in engineering. Principles of vehicle engineering design with emphasis on contemporary industrial design processes and engineering economics with applications in product design. Development phase for capstone team design project in vehicle engineering: preliminary design, supporting analyses and drawings with bill of materials.

**6. From:**

VE 4200: Senior Design Project 2                      Lec. 1 Lab 4 Cr. 3  
Prerequisites: VE 3500; VE 4100; consent of instructor. Prototyping and testing phase for capstone team design project in vehicle engineering. Final design reporting (written and oral).

**To:**

VE 4200: Senior Design Project 2                      Lec. 1 Lab 4 Cr. 3.  
Prerequisites: VE 4100; **or** consent of instructor. Prototyping and testing phase for capstone team design project in vehicle engineering. Final design reporting (written and oral).

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried

**20. Music**

**A. Addition of New Courses.**

- 1. MUS 1115 Play Production (cross-list existing THEA 2110) Lec. 1 Credit 1**  
**Practical experience on any phase of a Theatre department production from playwriting to performance or committee or crew work. All music majors must achieve a grade of "C" in each music course.**
- 2. MUS 1230 Voice and Diction (cross-list existing THEA 2155 course)**  
**Lec. 3 Credit 3**

Interactive course covering basic elements of voice production and articulation. All music majors must achieve a grade of "C" in each music course.

### Course Name Changes.

#### 3. From:

MUSA 1001 - Live Audio Eng. Intro I                      Lec: 1, Lab: 3, Credits: 2  
An introductory level course in live audio engineering that will focus on the basics of audio system design. This will include the interconnection and function of system components, cabling, connectors, signal impedance, gain structure, and an introduction to signal processing. All music majors must achieve a grade of "C" in each music course.

#### To:

MUSA 1001 - **Live Audio Intro I**                      Lec: 1, Lab: 3, Credits: 2  
An introductory level course in live audio engineering that will focus on the basics of audio system design. This will include the interconnection and function of system components, cabling, connectors, signal impedance, gain structure, and an introduction to signal processing. All music majors must achieve a grade of "C" in each music course.

#### 4. From:

MUSA 1002 - Live Audio Eng. Intro II                      Lec: 1, Lab: 3, Credits: 2  
Prerequisite: MUSA 1001. An introductory level course in live audio engineering that will focus on room acoustics, properties of sound waves, and psychoacoustics. Students will be introduced to a variety of shop tools and trained in their safe use. Students will be taught to load, transport, and unload professional grade audio equipment. All music majors must achieve a grade of "C" in each music course.

#### To:

MUSA 1002 - **Live Audio Intro II**                      Lec: 1, Lab: 3, Credits: 2  
Prerequisite: MUSA 1001. An introductory level course in live audio engineering that will focus on room acoustics, properties of sound waves, and psychoacoustics. Students will be introduced to a variety of shop tools and trained in their safe use. Students will be taught to load, transport, and unload professional grade audio equipment. All music majors must achieve a grade of "C" in each music course.

#### 5. From:

MUSA 2001 - Live Audio Eng. Inter. I                      Lec: 1, Lab: 3, Credits: 2  
Prerequisite: MUSA 1002. An intermediate level course in live audio engineering that will focus on the operation of more complex audio systems. Students will learn listening skills for audio mixing, microphone selection and placement, and loudspeaker design and application. All music majors must achieve a grade of "C" in each music course.

**To:**

MUSA 2001 - **Live Audio Inter. I** Lec: 1, Lab: 3, Credits: 2

Prerequisite: MUSA 1002. An intermediate level course in live audio engineering that will focus on the operation of more complex audio systems. Students will learn listening skills for audio mixing, microphone selection and placement, and loudspeaker design and application. All music majors must achieve a grade of "C" in each music course.

**6. From:**

MUSA 2002 - **Live Audio Eng. Inter. II** Lec: 1, Lab: 3, Credits: 2

Prerequisite: MUSA 2001. An intermediate level course in live audio engineering that will focus on parametric EQ, compressors, and gates for enhanced audio mixing. This course will cover performance monitors as well as digital effects, wireless microphones, and the basics of RF technology. All music majors must achieve a grade of "C" in each music course.

**To:**

MUSA 2002 - **Live Audio Inter. II** Lec: 1, Lab: 3, Credits: 2

Prerequisite: MUSA 2001. An intermediate level course in live audio engineering that will focus on parametric EQ, compressors, and gates for enhanced audio mixing. This course will cover performance monitors as well as digital effects, wireless microphones, and the basics of RF technology. All music majors must achieve a grade of "C" in each music course.

**7. From:**

MUSA 3001 - **Live Audio Eng. Adv. I** Lec: 2, Lab: 3, Credits: 3

Prerequisite: MUSA 2002. An advanced level course in live audio engineering that will focus on the operation of complex audio systems. Students will be introduced to in-ear and advanced monitor mixing, advanced miking techniques for musical theater, and advanced RF topics. Students will also learn AC power distribution systems, rigging safety, and on-site repair. All music majors must achieve a grade of "C" in each music course.

**To:**

MUSA 3001 - **Live Audio Adv. I** Lec: 2, Lab: 3, Credits: 3

Prerequisite: MUSA 2002. An advanced level course in live audio engineering that will focus on the operation of complex audio systems. Students will be introduced to in-ear and advanced monitor mixing, advanced miking techniques for musical theater, and advanced RF topics. Students will also learn AC power distribution systems, rigging safety, and on-site repair. All music majors must achieve a grade of "C" in each music course.

**8. From:**

MUSA 3002 - Live Audio Eng. Adv. II                      Lec: 2, Lab: 3, Credits: 3  
Prerequisite: MUSA 3001. An advanced level course in live audio engineering that will focus on the operation of complex audio systems. Students will be taught advanced EQ and compression techniques as well as the miking of non-traditional instruments. Students will be introduced to Ableton® and MainStage® digital audio workstations, live performance recording techniques (DECCA/ORTF) and trained in the use of Pro Tools® for live recording applications. All music majors must achieve a grade of "C" in each music course.

**To:**

MUSA 3002 - **Live Audio Adv. II**                      Lec: 2, Lab: 3, Credits: 3  
Prerequisite: MUSA 3001. An advanced level course in live audio engineering that will focus on the operation of complex audio systems. Students will be taught advanced EQ and compression techniques as well as the miking of non-traditional instruments. Students will be introduced to Ableton® and MainStage® digital audio workstations, live performance recording techniques (DECCA/ORTF) and trained in the use of Pro Tools® for live recording applications. All music majors must achieve a grade of "C" in each music course.

**9. From:**

MUSA 4001 - Live Audio Eng. Pro                      Lec: 2, Lab: 3, Credits: 3  
Prerequisite: MUSA 3002. A professional level course in live audio engineering that will focus on the expert design, operation, troubleshooting, and maintenance of complex audio systems. Students will be introduced to acoustic simulation and loudspeaker modeling software, the planning and management of live events, and the roles of front of house engineer, monitor engineer, system engineer, and stage techs. All music majors must achieve a grade of "B" in each music course.

**To:**

MUSA 4001 - **Live Audio Pro**                      Lec: 2, Lab: 3, Credits: 3  
Prerequisite: MUSA 3002. A professional level course in live audio engineering that will focus on the expert design, operation, troubleshooting, and maintenance of complex audio systems. Students will be introduced to acoustic simulation and loudspeaker modeling software, the planning and management of live events, and the roles of front of house engineer, monitor engineer, system engineer, and stage techs. All music majors must achieve a grade of "B" in each music course.

**10. From:**

MUSA 4002 - Live Audio Eng. Pro II                      Lec: 2, Lab: 3, Credits: 3  
Prerequisite: MUSA 4001. A professional level course in live audio engineering that will focus on sound reinforcement for orchestral miking, design and installation of fixed audio systems, and venue structural and

power needs. Students will also begin preparations for entry into the professional world by learning about professional organizations, continuing education opportunities, and tour/travel etiquette. All music majors must achieve a grade of "B" in each music course.

**To:**

MUSA 4002 - **Live Audio Pro. II** Lec: 2, Lab: 3, Credits: 3  
Prerequisite: MUSA 4001. A professional level course in live audio engineering that will focus on sound reinforcement for orchestral miking, design and installation of fixed audio systems, and venue structural and power needs. Students will also begin preparations for entry into the professional world by learning about professional organizations, continuing education opportunities, and tour/travel etiquette. All music majors must achieve a grade of "B" in each music course.

**B. Curriculum Changes.**

**Curriculum Changes: B.S. in Music**

**1. First Semester, Freshman Year**

**From:**

UNMU 1020 - First-Year Music Connection, Credit: 1.

**To:**

**Eliminate UNMU 1020 from degree. Add elective credit to second semester, sophomore year.**

**2. First Semester, Freshman Year**

**From:**

Electives – Elective Course, 1 credit

**To:**

**Change name to MUS Electives – MUS Elective Course, 1 credit**

**3. First Semester, Sophomore Year**

**From:**

MUS 1023 - Intermediate Class Piano for Music Majors III, Credit: 1.

**To:**

**Eliminate MUS 1023 from degree. Add MUS 1011 – Beginner Class Piano for Music Majors I, Credit: 1 to first semester, freshman year.**

**4. Second Semester, Sophomore Year**

**From:**

MUS 1024 - Intermediate Class Piano for Music Majors IV,  
Credit: 1.

**To:**

Eliminate MUS 1024 from degree. Add MUS 1012 – Beginner  
Class Piano for Music Majors II, Credit: 1 to second semester,  
freshman year.

5. First Semester, Freshman Year

**From:**

\*Piano Class is highly advised Freshman Year

**To:**

(Delete statement. No longer needed)

6. First Semester, Freshman Year

**From:**

MUS 1030 – Music Appreciation, Credit: 3

**To:**

Move course to second semester, freshman year.

7. Second Semester, Freshman Year

**From:**

Mathematics (Gen. Ed. Core) Credit: 3.

**To:**

Move mathematics course to first semester, freshman year.

8. Second Semester, Freshman Year

**From:**

Elective Credit: 1

**To:**

Move Elective credit: 1 to first semester, Sophomore year.

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried

**C. Addition of New Minor.**

The School of Music is proposing a new 15-credit minor in Live Audio Arts  
and Sciences.

MUSA 1001 – Live Audio Intro A (2 credits)



MUSA 1002 – Live Audio Intro B (2 credits)  
MUSA 2001 – Live Audio Intmed A (2 credits)  
MUSA 2002 – Live Audio Intmed B (2 credits)  
MUS 1011 – Piano I (1 credit)  
MUS 1120 – Harmony I (3 credits)  
MUS 1130 – Aural Techniques I (1 credit)  
MUSA/MUS Electives – 2 credits

Justification: This minor will give students an introduction to the live audio industry and provide them with basic musical skills. In addition to operating live audio equipment, audio specialists have to understand the basic elements of music. For this reason, the proposed minor includes courses in music theory, ear training, and piano. Two elective credits enable the student to further pursue live audio courses or participate in other musical experiences (lessons, ensembles, etc).

The School of Music recently created a new degree option in Live Audio Arts and Sciences (under the BS in Music) and this minor will give students in other degree programs the opportunity to gain experiences in this emerging field.

Tennessee Tech University has a long tradition with STEM education and this cross-disciplinary emphasis fits the University's mission and identity. The proposed minor will give students the tools to creatively marry their artistic background with their love of science and technology.

Effective: Summer/Fall 2023

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried

## **21. Professional Studies**

### **A. Addition of New Courses.**

- 1. PRST 4920 Surviving an Active Shooter (offered as - List 4924 Special Topic: Surviving an Active Shooter / LIST 4926 Mass Shooting Responses)  
Lec. 3 Credit 3**

Course Description: This course will teach best practices for surviving an active shooter. By learning these principles, you will substantially increase your chances of surviving if you find yourself in an active shooter situation. It will also inform you what to do before and after an event so that survival is more likely and that recovery from such an incident is quicker.

2. PRST 4921 Intelligence Gathering (Offered as – LIST 4925 Special Topics: Intelligence Gathering)  
Lec.3 Credit 3

Course Description: This course examines the various techniques used, as well as hindrances, in the intelligence gathering process. The course will cover various approaches to investigative and interview practices for varying agency levels, including interagency communication and resource allocation. Attention is given to the impact of public perceptions of intelligence gathering, the dissemination of, and the potential risk to public safety professionals. Mitigation measures are also discussed.

3. PRST 4922 Managing Emergency Volunteers (offered as – LIST 4926 Special Topics: Managing Emergency Volunteers)  
Lec. 3 Credit 3

Course Description: This course will focus on the management and benefits of using Internal Volunteer Organizations, External Volunteer Organizations and Spontaneous Volunteers to support an agency's preparedness and increase capacities during crises response to incidents, emergencies, or disasters. The course includes an overview of Managing Community donations.

4. PRST 4923 Science of Contact Tracing (offered as – LIST 4927 Special Topics: Science of Contact Tracing)  
Lec. 3 Credit 3

Course Description. Students will learn the necessary investigative skills needed for contact tracing and various strategies that can be used to jog the memory of an infected patient. Principles are also taught dealing with secretive patients, and even more importantly, the principles of case management for infected patients. Students will also learn the principles of leading a contact tracing team.

5. PRST 4924 Biological Event Readiness (offered as– LIST 4925 Special Topics: Global Terrorism-Pandemics & Epidemics)  
Lec. 3 Credit 3

Course Description: This course provides the various tools needed for public health and public safety agencies to address pandemics and epidemics. Students will learn how to identify the differences between pandemics, epidemics, and outbreaks. Students will learn mitigation strategies to ensure that critical infrastructure and essential work can be functional during a pandemic or epidemic.

Students will research acts of bioterrorism and utilize critical thinking skills needed to prevent bioterrorist attacks.

*Friendly Amendment: The plagiarism statement on the syllabi's must be changed to the updated 217 policy. Currently, all sample syllabi's have old policy information on them.*

**Motion to approve.** Julie Baker

**Second.** Lisa Zagumny

**Vote.** Motion carried

## **22. Informational Item: Art, Craft & Design**

### **A. Addition of Post-Baccalaureate.**

The School of Art, Craft & Design proposes a new post-baccalaureate in craft program effective fall 2023. Program details are listed below.

#### Purpose:

The implementation of a post- baccalaureate program will allow a mature, focused student to enter Tennessee Tech as a non-degree seeking undergraduate student, gaining access to the specified craft studio to prepare themselves for entry into a graduate program, an artist residency, or other such employment or creative opportunities. Post-baccalaureate students are encouraged to assist in studio tasks, gaining working knowledge of the operational needs of a studio. Post-baccalaureate students would act as a mentor to undergraduate students within the discipline.

Post Baccalaureate student definition: The post- baccalaureate program allows for a student to have assisted, directed study in a particular medium, as they will be enrolled in undergraduate level courses. This is ideal for a student who would benefit from directed study, as opposed to a residency or independent study outside of the academic studio setting. Students will be expected to actively participate in all aspects of the courses in which they are enrolled, with the purpose of gaining the knowledge that they may lack or seek to further develop from their prior collegiate experience.

#### Description:

Tennessee Tech's School of Art, Craft & Design is offering a non-certificate post-baccalaureate studies opportunity designed for motivated candidates possessing a BA/BS or BFA degree to prepare a graduate or other professional application portfolio. The opportunity is 1 year in length. Post-Baccalaureate students will complete a group exhibition at the end of their year at the Craft Center Gallery as a culminating event of the experience.

Students will receive critique and mentorship from faculty, as well as assistance preparing portfolios for future applications such as graduate degrees or residencies.

Post-bacs will work in shared studio spaces which will be allocated based on needs and availability. Students will pay university tuition at the undergraduate rate, including lab and associated fees. Students will register

as undergraduate non-degree students. Accepted students may choose to live at the Craft Center through University housing, with related housing fees.

Students will enroll in 6 credit hours/semester with 15 hours required for completion of the program. Students versed within the medium will be enrolled in one 3-credit advanced course as well as one 3-credit independent study course. Students changing disciplines and new to the medium will be enrolled in either an introductory or intermediate level course, as determined by the supervising faculty member, as well as one 3-credit independent study course. Students will have the option to take additional courses beyond the six hours.

Post-bacs will have 24-hour access to studio spaces. Post-bacs are expected to adhere to all procedures and protocol that exist within the University.

Applications will be due to program faculty by **March 31<sup>st</sup>** for the following year. The following items are required for application:

- A letter of intent addressing the following:
  - Why would you like to be a post baccalaureate student at Tennessee Tech?
  - What are you intending to accomplish and pursue while in the program?
  - What are your goals moving forward *after* the program?
- Ten images of recent work and corresponding image description list.
  - Title
  - Dimensions
  - Medium, processes employed.
  - Date of completion
- Artist statement
- Resume
- Contact information for two references, including e-mail and telephone number.
- Unofficial undergraduate transcripts

***No voting on this item.***

**23. Election of 2023-2024 UCC Chair**

- A. The committee members for the election of the UCC chair are Dr. Barbara Jared, Dr. Linda Null, Dr. Melinda Anderson, and Dr. Christy Killman.

All members of the committee unanimously nominated Dr. Jeremy Wendt to be the 2023-2024 UCC Chair.

**Motion to approve.** Christy Killman

**Second.** Brenda Wilson

**Vote.** Motion carried

**24. Informational Item: CPOS Changes in Minors/Title IV Eligibility (Mary McCaskey, Financial Aid Director)**

- A. Mary McCaskey discussed the CPOS changes in minors and Title IV eligibility. An informational meeting with the chairs and advisors had already been conducted on March 21<sup>st</sup> and 22<sup>nd</sup>. The financial aid office expects to send out the information to the students sometime in the week of March 27<sup>th</sup>.

The Department of Education has clarified that academic minors are only eligible for Title IV aid in instances:

1. The minor coursework covers a requirement in the major degree program. In many cases this would be electives for the major degree.
2. The minor coursework is required by the institution for the major degree to be conferred.

This information does not mean that students cannot work towards the completion of academic minors. The majority of students who wish to receive their maximum aid eligibility while working towards a minor would need 12 or more hours in program in addition to any hours applicable to their minor unless the minor coursework is required for degree completion, fulfills elective credits, or meets general education requirements. To be clear, students do not have to be full-time to receive aid in general, but they must be at least half-time.

In a similar manner, if a certificate is built into a degree program and required for that program's degree completion, it may be eligible for Title IV Aid.

Since Tech is in the middle of an award financial aid year, the plan is for this to be in effect for Fall 2023, since Tech's academic year includes Fall, Spring and Summer.

**No other such matters being presented, the meeting was adjourned at 5:08pm.**