## University Curriculum Committee <br> March 25, 2021 Meeting Minutes

The University Curriculum Committee met on Thursday, March 25 at 3:00 p.m. via Zoom Meeting.
Members Present:

| Melinda Anderson | Julie Baker | Jeff Boles | Brittany Copley |
| :--- | :--- | :--- | :--- |
| Lori Maxwell | Mohan Rao | Vicki Dieffenderfer | Jerry Gannod |
| Rita Barnes | Hayden Mattingly | Sharon Huo | LTC James Bryant |
| Sharon Holderman | Jennifer Shank | Barbara Jared | Ben Mohr |
| Michael Allen | Martin Sheehan | Janet Whiteaker | Mike Gotcher |
| Jeff Roberts | Brandon Johnson | Evan Hart | Richard Rand |
| Thomas Payne | Wesley Pech | Brandi Hill | Steve Frye |
| Barry Stein | Mark Stephens | Bruce Greene | Dale Wilson |
| Lisa Zagumny | Darron Smith | Joseph Slater | Kim Winkle |
| Allan Mills | Alexis Harvey, Student | Jeremy Wendt, Chair | Chris Brown |
| Rachel Baker, Student | Edith Duvier | Chris Wilson | Holly Stretz |
| Julie Galloway |  |  |  |

## Members Absent:

| Kim Hanna | Lori Bruce | Dawson Davidson, <br> Student | Melody Roth, Student |
| :--- | :--- | :--- | :--- |
| Thomas Timmerman | Stephen Robinson | Linda Null | Braxton Westbrook, <br> Student |
| Colin Hill | Christy Killman | Paul Semmes |  |

Official Representative(s):

| Rafay Hasan FOR | Allen Mackenzie | Scott Christen FOR | Brenda Wilson |
| :--- | :--- | :--- | :--- |

Guest(s):

| Cari Williams | Mary McCaskey | Simone McKelvey |  |
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Outline of Proceedings:

| 1. | Approval of Agenda | 9. | Communication |
| :--- | :--- | :--- | :--- |
| 2. | Approval of February 11 Minutes | $\mathbf{1 0 .}$ | Business |
| 3. | Curriculum \& Instruction | $\mathbf{1 1 .}$ | Economics, Finance, and Marketing |
| 4. | Physics | $\mathbf{1 2 .}$ | Decision Sciences Management |
| 5. | Biology | $\mathbf{1 3 .}$ | Accounting |
| 6. | History | $\mathbf{1 4 .}$ | Art, Craft \& Design |
| 7. | Mathematics | $\mathbf{1 5 .}$ | Interdisciplinary Studies |
| $\mathbf{8 .}$ | Environmental Studies | $\mathbf{1 6 .}$ | Civil and Environmental Engineering |


| 17. | Mechanical Engineering | 21. | Music |
| :--- | :--- | :--- | :--- |
| $\mathbf{1 8 .}$ | Manufacturing \& Engineering Technology | 22. | Human Ecology |
| 19. | Electrical and Computer Engineering | 23. | Agriculture |
| 20. | General and Basic Engineering | 24. | Nursing |

Proceedings:
Perceiving a quorum, Dr. Jeremy Wendt, Chair of Committee, called the meeting to order at 3:00pm via Zoom.
*Due to the meeting being via Zoom, all motion and seconds will be initiated by Lisa Zagumny and Barry Stein throughout the meeting. Any objections can be called for discussion.

1. Approval of agenda

Motion to approve. Lisa Zagumny
Second. Barry Stein
Vote. Motion carried.
2. Approval of minutes, February 11, 2021

Motion to approve. Lisa Zagumny
Second. Barry Stein
Vote. Motion carried.
3. Curriculum \& Instruction
A. Curriculum Changes.

1. Multidisciplinary Studies, Computer Science Education Concentration, B.S.
A. First Semester Sophomore Year

From:
Elective (credit 3)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
B. First Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
Elective (credit 3)
2. Multidisciplinary Studies, English as a Second Language Concentration, B.S.
A. First Semester Sophomore Year

From:
Elective Credit (credit 1)
Total credit hours 13

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
Total credit hours 15
B. Second Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

## To:

Elective (credit 1)
Total credit hours 15
3. Multidisciplinary Studies, Middle School Science, 6-8 Concentration, B.S.
A. Second Semester Sophomore Year

From:
COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
B. First Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
READ 3350-Teaching Reading in the Content Areas (credit 3)
C. Second Semester Junior Year

From:
READ 3350-Teaching Reading in the Content Areas (credit 3)

## To:

COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)

Note: This is the second request for a change to this PoS this academic year.
4. Multidisciplinary Studies, Middle School Social Studies, 6-8 Concentration, B.S.
A. Second Semester Sophomore Year

From:
COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
B. First Semester Junior Year

From:

FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
READ 3350-Teaching Reading in the Content Areas (credit 3)

## C. Second Semester Junior Year

From:
READ 3350-Teaching Reading in the Content Areas (credit 3)

To:
COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)

Note: This is the second request for a change to this PoS this academic year.
5. Secondary Education, Biology Concentration, B.S. ED.
A. First Semester Sophomore Year

From:
Social/Behavioral Sciences Elective (Gen Ed) (credit 3)
Total credit hours 14

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
Total credit hours 15
B. Second Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
Total credit hours 16

To:
Social/Behavioral Sciences Elective (Gen Ed) (credit 3)
Total credit hours 14

Note: This is the second request for a change to this PoS this academic year.
6. Secondary Education, Chemistry Concentration, B.S. ED.

## A. Second Semester Sophomore Year <br> From:

COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

## B. Second Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)

Note: This is the third request for a change to this PoS this academic year.
7. Secondary Education, Earth Science Concentration, B.S. ED.
A. Second Semester Sophomore Year

From:
COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
B. First Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)

Note: This is the second request for a change to this PoS this academic year.
8. Secondary Education, Economics Concentration, B.S. ED.
A. First Semester Sophomore Year

## From:

COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
B. First Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
COMM 2025-Fundamentals of Communication (credit 3) OR PC 2500-Communicating in the Professions (credit 3)
9. Secondary Education, English Concentration, B.S. ED.
A. Second Semester Sophomore Year From:
Social/Behavioral Sciences Elective (Gen Ed) (credit 6)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
Social/Behavioral Sciences Elective (Gen Ed) (credit 3)
B. Second Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
Social/Behavioral Sciences Elective (Gen Ed) (credit 3)
10. Secondary Education, French Concentration, B.S. ED.

## A. First Semester Sophomore Year <br> From:

Total credit hours 15

To:
ESLP 3100-ESL Pedagogy: SEED Methods and Materials (credit 1)
Total credit hours 16
B. Second Semester Sophomore Year

From:
FREN 3100-French Phonetics (credit 3)
Social/Behavioral Sciences Elective (Gen Ed) (credit 3)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

FREN 3200-Business French (credit 3) OR
FREN 4810(5810)-Special Topics in French (credit 3)
C. First Semester Junior Year

From:

ESLP 3100-ESL Pedagogy: SEED Methods and Materials (credit 1) Total credit hours 16

To:
Total credit hours 15
D. Second Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
Social/Behavioral Sciences Elective (Gen Ed) (credit 3)
11. Secondary Education, Geography Concentration, B.S. ED.

## A. First Semester Sophomore Year

From:
COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
B. First Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)
12. Secondary Education, German Concentration, B.S. ED.
A. First Semester Sophomore Year

From:
Total credit hours 15

To:
ESLP 3100-ESL Pedagogy: SEED Methods and Materials (credit 1)
Total credit hours 16
B. Second Semester Sophomore Year

From:
Social/Behavioral Sciences Elective (Gen Ed) (credit 3)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
C. First Semester Junior Year

From:
ESLP 3100-ESL Pedagogy: SEED Methods and Materials (credit 1)
Total credit hours 15

To:
Total credit hours 14
D. Second Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
Social/Behavioral Sciences Elective (Gen Ed) (credit 3)
13. Secondary Education, History Concentration, B.S. ED.
A. First Semester Sophomore Year

From:
COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
B. First Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)
14. Secondary Education, Mathematics Concentration, B.S. ED.
A. First Semester Sophomore Year

From:
COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
B. Second Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
COMM 2025-Fundamentals of Communication (credit 3) OR PC 2500-Communicating in the Professions (credit 3)
15. Secondary Education, Non-Licensure Concentration, B.S. ED.

## A. Sophomore Year <br> From:

Electives (credit 3)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
B. Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
Electives (credit 3)
16. Secondary Education, Physics Concentration, B.S. ED.
A. First Semester Sophomore Year

From:
Total credit hours 14

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
Total credit hours 17
B. First Semester Junior Year

From:
COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)

Total credit hours 18

To:
Total credit hours 15
C. Second Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
COMM 2025-Fundamentals of Communication (credit 3) OR PC 2500-Communicating in the Professions (credit 3)

Note: This is the second request for a change to this PoS this academic year.
17. Secondary Education, Political Science Concentration, B.S. ED.
A. First Semester Sophomore Year

From:
COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
B. First Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)
18. Secondary Education, Spanish Concentration, B.S. ED.
A. First Semester Sophomore Year

## From:

Total credit hours 15

To:
ESLP 3100-ESL Pedagogy: SEED Methods and Materials (credit 1)
Total credit hours 16
B. Second Semester Sophomore Year

From:
Humanities/Fine Arts Elective (Gen Ed) (credit 3)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
C. First Semester Junior Year

From:
ESLP 3100-ESL Pedagogy: SEED Methods and Materials (credit 1)
Total credit hours 15

To:
Total credit hours 14
D. Second Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
Humanities/Fine Arts Elective (Gen Ed) (credit 3)
19. Secondary Education, Speech Communication \& Theatre Concentration, B.S. ED.
A. Second Semester Sophomore Year

From:
Social/Behavioral Sciences Elective (Gen Ed) (credit 6)

## To:

FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
Social/Behavioral Sciences Elective (Gen Ed) (credit 3)
B. First Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
Social/Behavioral Sciences Elective (Gen Ed) (credit 3)
20. Special Education, Comprehensive/Interventionist Concentration, B.S.

## A. First Semester Sophomore Year <br> From:

COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
B. First Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)
21. Special Education, SE Interventionist Biology, 6-12 Concentration, B.S.
A. First Semester Sophomore Year
From:
Social/Behavioral Sciences Elective (Gen Ed) (credit 3)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
B. Second Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
Social/Behavioral Sciences Elective (Gen Ed) (credit 3)
22. Special Education, SE Interventionist English, 6-12 Concentration, B.S.
A. First Semester Sophomore Year

From:
Social/Behavioral Sciences Elective (Gen Ed) (credit 3)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
B. Second Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
Social/Behavioral Sciences Elective (Gen Ed) (credit 3)
23. Special Education, SE Interventionist History, 6-12 Concentration, B.S.
A. First Semester Sophomore Year

From:
COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
B. Second Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)
24. Special Education, SE Interventionist Math, 6-12 Concentration, B.S.
A. First Semester Sophomore Year

From:

COMM 2025-Fundamentals of Communication (credit 3) OR PC 2500-Communicating in the Professions (credit 3)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
B. First Semester Junior Year

From:
MATH 2010-Introduction to Linear Algebra (credit 3)

To:
READ 3350-Teaching Reading in the Content Areas (credit 3)
C. Second Semester Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
READ 3350-Teaching Reading in the Content Areas (credit 3)

To:
COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)

MATH 2010-Introduction to Linear Algebra (credit 3)
25. Special Education Practitioner, B.S.
A. Sophomore Year

From:
COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)

To:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)
B. Junior Year

From:
FOED 3010-Integrating Inst Tech into the Classroom (credit 3)

To:
COMM 2025-Fundamentals of Communication (credit 3) OR
PC 2500-Communicating in the Professions (credit 3)
26. Early Childhood Practitioner, B.S.
A. Second Semester Sophomore Year

From:

MUS 1074-Music to Meet Excpt Education Needs (credit 1)
Total hours: 16

## To:

Total hours: 15
B. Senior Year

From:
ECED 4221-Early Intervention Field Experience (credit 1-3. 1 required)
ECED 4240(5240)-Early Intervention II (credit 3)
ECED 4270-Early Childhood Internship I (credit 3-7. 7 required)
ECED 4260-Early Childhood Program Leadership, Administration and
Assessment (credit 8)
ECED 4280-Early Childhood Internship II (credit 7)

Total: 26

To:
First Semester Senior Year
ECED 4221-Early Intervention Field Experience (credit 1-3. 2 required)
ECED 4240(5240)-Early Intervention II (credit 3)
ECED 4270-Early Childhood Internship I (credit 3-7. 7 required)
Total: 12

Second Semester Senior Year
ECED 4260-Early Childhood Program Leadership, Administration and
Assessment (credit 8)
ECED 4280-Early Childhood Internship II (credit 7)

Total: 15

Motion to approve. Lisa Zagumny
Second. Barry Stein
Vote. Motion carried.

## 4. Physics

A. Curriculum Changes.

1) The proposed change applies to both Option I and Option II Physics programs of study.

## Delete:

*This deletion will reduce the number of credit hours in the first semester from 16 to 15 . Since this course was not part of the 120hour curriculum, there is no other impact.

Motion to approve. Lisa Zagumny
Second. Barry Stein
Vote. Motion carried.

## 5. Biology (WFS)

A. Curriculum Changes.

1) The changes will be made to the three WFS concentrations: Conservation Biology (WFSC), Fisheries Science (WFSF), and Wildlife Science (WFSW).
A. Remove GEOL 2000 (Earth Evolution) as a required course in all three concentrations because it will not be taught in the future.
B. In place of GEOL 2000, WFS 4711 (Fisheries Management) will be required in the WFSW concentration, and the number of directed electives will be increased from two courses to three courses in the WFSC and WFSF concentrations.
C. Remove AGRN 2300/2310 (Soils) from the list of directed electives of all three concentrations and replace this listing with AGRN 3000 (Soils) because of a rubric change that has occurred in the last few years.
D. Add BIOL 4780 (Phycology), WFS 4650 (Marine Biology), and WFS 4800 (Conservation Techniques) to the list of directed electives in the WFSC concentration to provide more flexibility.
E. Add GEOG 3200 (Water Resources), WFS 3500 (Wildlife Law Enforcement), WFS 4230 (Animal Behavior), WFS 4630 (Ornithology), WFS 4640 (Waterfowl Ecology and Management), WFS 4650 (Marine Biology), WFS 4820 (Mammalogy), and WFS 4830 (Herpetology) to the list of directed electives in the WFSF concentration to provide more flexibility.
F. Remove WFS 4700 (Habitat Management) from the list of directed electives in the WFSF concentration because of its terrestrial focus.
G. Remove GEOG 4410 (Remote Sensing) from the list of directed electives of all three concentrations because WFS students are not required to take a prerequisite course (GEOL 2500), and general electives are limited in these programs.
H. Change the catalog listing of directed electives in the WFSW concentration, and restore AGHT 3450 (Dendrology) as a
required course in place of BIOL 4330 (Plant Ecology) to correct mistakes in the current version of the catalog.
I. Change the sequence in which courses are recommended to be taken in all three concentrations (See attached files) to better reflect realistic programs of study.

Motion to approve. Lisa Zagumny
Second. Barry Stein
Vote. Motion carried

## 6. History

A. Prerequisite Changes.

1) From:

HIST 4420 - Public History. Lec. 3. Credit 3.
Prerequisite: HIST 3410.
Introduce history majors to possible careers in the field and give students practical, hands-on experience in the field of Public History.

To:
HIST 4420 - Public History. Lec. 3. Credit 3.
Introduce history majors to possible careers in the field and give students practical, hands-on experience in the field of Public History.

Motion to approve. Lisa Zagumny
Second. Barry Stein
Vote. Motion carried

## 7. Mathematics

## A. Course Deletion/Curriculum Changes.

1) Delete:
a. MATH 1020: First-Year Connections, Credit 1.
b. CSC/MATH/PHYS 1020: First-Year Connections are no longer needed as it is not part of the 120-hour curriculum.

Motion to approve. Lisa Zagumny
Second. Barry Stein
Vote. Motion carried
8. Environmental Studies
A. Course Additions.

1) ESS 2100, Environment and Ethics Lec. 3. Credit 3.

Prerequisite: None.
This course is designed to assist in developing students' understanding of the roles that environmental ethics impact upon professional and personal decision-making and leadership. Review of ethical frameworks, multi-cultural ethics and worldviews, and
environmental perspectives provide a foundation for ethical decision making about environmental and sustainability issues.
2) ESS 3100, Global Sustainability Issues and Initiatives Lec. 3. Credit 3. Prerequisite: None.
This course will provide a broad overview of the most pressing sustainability issues globally, as well as common practices and innovative initiatives to address these issues.
3) ESS 3200, Nonprofit Organizations and the Environment Lec. 3. Credit 3.
Prerequisite: None.
This course will provide an overview of the role of the nonprofit sector in environmental advocacy, education, conservation, management, policy development, and sustainability; and as catalysts, intermediaries, and champions of environmental movements. While much of the focus will be on the U.S., the course will also include a comparative look at global environmentally focused non-governmental organizations (NGOs).

## B. Course Changes.

1) From:

ESS 3710 - Chemistry and the Environment
Lec. 3. Credit 3.
Prerequisite: CHEM 1010. Concepts of environmental chemistry that include organic chemistry, polymer chemistry, the chemistry of the earth, water and air, biochemistry, and energy. A grade in ESS 3710 may be accepted as a replacement for a previous grade in CHEM 3710.

## To:

ESS 3710 - Chemistry and the Environment
Lec. 3. Credit 3.
Prerequisite: CHEM 1010 or CHEM 1110. Concepts of environmental chemistry that include organic chemistry, polymer chemistry, the chemistry of the earth, water and air, biochemistry, and energy. A grade in ESS 3710 may be accepted as a replacement for a previous grade in CHEM

## C. Addition of New Minors.

1) Natural Resources (new minor)

Required Courses (6 credit hours)

- ESS 1100 Introduction to Environmental Studies
- ESS 4110 Human Dimensions of Natural Resources

Directed Elective Courses (9 credit hours) Soil, Water, and Air Protection (Select one course)

- AGRN 3000 Soils
- GEOL/GEOG 3200 Water Resources
- ESS 3710 Chemistry and the Environment
- CHEM 4710 Environmental Chemistry

Biotic Conservation (Select one course)

- WFS 4730 Conservation Biology
- WFS 4770 Non-game Species Management
- WFS 4711 Fisheries Management

Policy and Technology (Select one course)

- AGBE/ECON 4120 Natural Resource Economics
- AGET 3110 Natural Resource Systems [AND] AGET 3115

Natural Resource Systems Laboratory

- GEOG 4510 Theory of GIS I
- WFS 4500 National Wildlife Policy

2) Parks and Protected Areas (new minor)

Required Courses ( 9 credit hours)

- ESS 1100 Introduction to Environmental Studies
- ESS 4100 National Parks and Protected Public Lands
- ESS 4110 Human Dimensions of Natural Resources

Directed Electives Courses (6 credit hours)
Human Dimensions Courses (Select one course)

- ESS 2100 Environment and Ethics
- ESS 3200 Nonprofit Organizations and the Environment
- HIST 3900 Environmental History
- SOC 3600 Environmental Sociology

Management and Protection Courses (Select one course)

- WFS 3500 Wildlife Law Enforcement
- WFS 4730 Conservation Biology
- WFS 4770 Non-game Species Management

3) Environmental Sustainability (new minor)

Required Courses (6 credit hours)

- ESS 1100 Introduction to Environmental Studies
- ESS 3100 Global Sustainability

Directed Elective Courses (9 credit hours)
Society and the Environment (Select one course)

- AGBE 2010 World Food and Society
- AGHE 4600 Global Food Systems: Sustainability and Insecurity
- ESS 2100 Environment and Ethics
- HEC 4315 Global Social Responsibility
- SOC 3600 Environmental Sociology

Economics, Policy, and Law (Select one course)

- AGBE/ECON 4120 Natural Resource Economics
- ECON 4200 Environmental Economics
- ESS 3000 Introduction to Environmental Law
- ESS 3200 Nonprofit Organizations and the Environment
- ESS 4300 Environmental Management Systems

Environmental Science and Technology (Select one course)

- AGRN 3300 Organic Farming
- CEE 3413 Environmental Engineering
- CHE 4550 Green Engineering
- ESS 3710 Chemistry and the Environment
- GEOG/GEOL 3200 Water Resources
- WFS 4730 Conservation Biology

[^0]Motion to approve. Richard Rand
Second. Mike Gotcher
Vote. Motion carried

## 9. Communication

A. Curriculum Changes/Addition of New Course.

1) Changes to the Communication Theory Elective
a. Add COMM 3040 / JOUR 3040: Event Planning and Risk Management to the list of Communication Theory Electives.
2) Changes to the Communication Application Elective
b. Add JOUR 4030: Field Experience in Event Management and Promotion to the Communication Application Elective

## 3) Addition of New Course.

From:
Freshman Year
ENGL 1010 - English Composition I Credit: 3.
ENGL 1020 - English Composition II Credit: 3.
COMM 2025 - Fundamentals of Communication Credit: 3.
MATH Credit: 3.
JOUR 2200 - Mass Communication in a Changing Society Credit: 3.
Natural Science Credit: 8.
Social/Behavioral Science Elective Credit: 3.
COMM 1020 - Survey of Communication Credit: 3
UNIV 1020 - First-Year Connections Credit ${ }^{5} 1$
Elective Credit: 1.
Total: 30

Sophomore Year
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.

HIST 2010 - American History I Credit: 3.
HIST 2020 - American History II Credit: 3.
Humanities/Fine Arts Electives Credit: 6.
Social/Behavioral Science Credit: 3.
COMM 2075 - Organizational Communication Credit: 3.
COMM 2090 - Interpersonal Communication Credit: 3.
Electives Credit: 6. ${ }^{2}$
Total: 30
Junior Year
COMM 3100 - Communication Theory Credit: 3.
COMM 3200-Research Methods in Communication Credit: 3.
JOUR 3770 - Law of Journalism Credit: 3.
COMM 3620-Intercultural Communication Credit: 3.
COMM 3630 - Discussion and Parliamentary Procedure Credit: 3.
Communication Application Elective Credit: $3^{2}$.
Communication Theory Electives Credit: 6. ${ }^{3}$
Mass Communication Application Elective Credit: $3^{11}$.
Electives Credit: 3.
Total: 30
Senior Year
COMM 4620 (5620) - Advanced Public Speaking Credit: 3.
COMM 4630 (5630) - Persuasion Credit: 3.
Electives Credit: 12
Communication Application Electives ${ }^{4}$ Credit: 6.
Communication Theory Electives ${ }^{3}$ Credit: 6.
Total: 30
Note:

1. Students may choose from the following: JOUR 1110, JOUR 3400, JOUR 3460, JOUR 3750.
2. Elective course to be selected in consultation with academic advisor.
3. Students may choose from the following: COMM 3000, COMM 3120, COMM 4420, COMM 4430 (5430), COMM 4440, COMM 4601, COMM 4602, COMM 4603, COMM 4900, COMM 4901.
4. Students may choose from the following: COMM 2800, COMM 3030, COMM 3080, COMM 3130, COMM 3400, COMM 4540, COMM 4550, COMM 4601, COMM 4602, COMM 4603, COMM 4853, COMM 4856, COMM 4900, COMM 4901.
5. This course is not included in the 120-hour curriculum.

To:
Freshman Year
ENGL 1010 - English Composition I Credit: 3.
ENGL 1020 - English Composition II Credit: 3.
COMM 2025 - Fundamentals of Communication Credit: 3.

MATH Credit: 3.
JOUR 2200 - Mass Communication in a Changing Society Credit: 3.
Natural Science Credit: 8.
Social/Behavioral Science Elective Credit: 3.
COMM 1020 - Survey of Communication Credit: 3
UNIV 1020 - First-Year Connections Credit ${ }^{5} 1$
Elective Credit: 1.
Total: 30
Sophomore Year
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.
HIST 2010 - American History I Credit: 3.
HIST 2020 - American History II Credit: 3.
Humanities/Fine Arts Electives Credit: 6.
Social/Behavioral Science Credit: 3.
COMM 2075 - Organizational Communication Credit: 3.
COMM 2090 - Interpersonal Communication Credit: 3.
Electives Credit: 6. ${ }^{2}$
Total: 30
Junior Year
COMM 3100 - Communication Theory Credit: 3.
COMM 3200 - Research Methods in Communication Credit: 3.
JOUR 3770 - Law of Journalism Credit: 3.
COMM 3620 - Intercultural Communication Credit: 3.
COMM 3630 - Discussion and Parliamentary Procedure Credit: 3.
Communication Application Elective ${ }^{3}$ Credit: 3.
Communication Theory Electives ${ }^{4}$ Credit: 6.
Mass Communication Application Elective ${ }^{1}$ Credit: 3.
Electives Credit: 3.
Total: 30
Senior Year
COMM 4620 (5620) - Advanced Public Speaking Credit: 3.
COMM 4630 (5630) - Persuasion Credit: 3.
Electives Credit: 12
Communication Application Electives ${ }^{3}$ Credit: 6.
Communication Theory Electives ${ }^{4}$ Credit: 6.
Total: 30
Note:

1. Students may choose from the following: JOUR 1110, JOUR 3400, JOUR 3460, JOUR 3750
2. Elective course to be selected in consultation with academic advisor.
3. Students may choose from the following: COMM 3000, COMM 3120, COMM 3040 / JOUR 3040, COMM 4030, COMM 4420, COMM 4430, COMM 4440, COMM 4560, COMM 4601, COMM 4602, COMM 4603, COMM 4900, COMM 4901.
4. Students may choose from the following: COMM 2800, COMM 3030, COMM 3080, COMM 3130, COMM 3400, JOUR 4030, COMM

4540, COMM 4550, COMM 4601, COMM 4602, COMM 4603, COMM 4850, COMM 4851, COMM 4900, COMM 4901.
5. This course is not included in the 120-hour curriculum.

## B. Addition of a New Emphasis Area.

## 1) Emphasis area in Visual Communication:

The visual communication emphasis area will consist of four of the following courses. Only one internship may count toward the four-course requirement:

ART 1250 Introduction to Digital Imaging
ART 2210 Introduction to Design
ART 2220 Typography, text and image
COMM 3120 Visual Communication and Rhetoric COMM 4440 Semiotics JOUR 4853 Internship

Motion to approve. Lisa Zagumny
Second. Barry Stein
Vote. Motion carried

## 10. Business

A. Program of Study Update.

In 2019, the College of Business removed the curricular requirement that all business students must start as Basic Business majors and complete a specified set of courses, after which they would be eligible to enter their desired program. Since "Basic Business" is no longer a program requirement, this label should be removed from the Undergraduate Catalog curriculum listings for the following majors/concentrations:

- Accounting, B.S.B.A.
- Business and Information Technology, B.S.B.A.
- Business Management
- Business Intelligence and Analytics Concentration, B.S.B.A.
- General Management Concentration, B.S.B.A.
- Human Resource Management Concentration, B.S.B.A.
- Production \& Operations Concentration, B.S.B.A.
- Finance, B.S.B.A.
- Marketing, B.S.B.A.

Motion to approve. Lisa Zagumny
Second. Barry Stein
Vote. Motion carried
11. Economics, Finance and Marketing
A.Course Additions.

1) ECON/FIN 4997 - Special Topics

Credit 3 per semester.
Prerequisite: None.
Directed study and research on a selected topic that combines Economics and Finance. Course may be taken more than once as topics change.
2) ECON/MKT 4998 - Special Topics

Credit 3 per semester.
Prerequisite: None.
Directed study and research on a selected topic that combines Economics and Marketing. Course may be taken more than once as topics change.
3) FIN/MKT 4999 - Special Topics

Credit 3 per semester.
Prerequisite: None.
Directed study and research on a selected topic that combines Finance and Marketing. Course may be taken more than once as topics change.

## B.Course Catalog Description

1) From:

ECON 3610 - Business Statistics I
Lec. 3. Credit 3.
Pre-requisite: MATH 1830 or MATH 1845 or MATH 1910 or consent of instructor. Statistical description, probability, probability distributions (binomial, Poisson, normal, and t), sampling distributions and the central limit theorem, interval estimation, hypothesis testing, and linear regression.

To:
ECON 3610 - Business Statistics I
Lec. 3. Credit 3.
Pre-requisite: MATH 1530 or MATH 1830 or MATH 1845 or MATH 1910 or consent of instructor. Business applications of statistics and probability, with emphasis on critical thinking, statistical inference, statistical dependence, and linear regression.

Motion to approve. Lisa Zagumny
Second. Barry Stein
Vote. Motion carried

## 12. Decision Sciences and Management

A. Prerequisite Changes/ Course Deletion.

1) From:

Prerequisite or corequisite: DS4210, DS4220, DS4230

## To:

Prerequisite or corequisite: DS4210, DS4220

## 2) Delete:

DS3840 (Management Information Systems)

## B. Deletion and Creation of New Concentration.

Deleting Business Intelligence and Analytics Concentration from Business Management Major and adding it to Business and Information Technology Major

The faculty of the Department of Decision Sciences and Management would like to delete the Business Intelligence and Analytics Concentration from the Business Management (BMGT) Major and add it to the Business and Information Technology (BINT) Major.

Historically, the Department hosted one major (Business Management) and five concentrations (General Management, Human Resource Management, Production and Operations, Business Intelligence and Analytics, and Business and Information Technology). Last year, Business and Information Technology was elevated to its own major. The content of the Business Intelligence and Analytics Concentration overlaps substantially with the content in the BINT Major. No curriculum changes are required.

Motion to approve. Lisa Zagumny
Second. Barry Stein
Vote. Motion carried

## 13. Accounting

## A. Program of Study Changes.

1) From:

Professor Rand, Chairperson; Professors Fesler, Seay; Associate Professor Howard; Assistant Professors Bundy, Davis, Garner, Wilbanks; Instructor Waggoner

The objective of the accounting program is to provide the educational foundation for careers in accounting. The program includes both general and special education. Courses in the arts, sciences, and business areas are required. A wide variety of accounting courses provide flexibility for different accounting specialties. The curriculum is designed to help students gain initial employment and successfully advance in such specializations as public accounting, internal auditing, taxation, and business and industrial accounting. The accounting program helps students to meet the requirements of the state's 150-hour law for CPA candidacy.

The current program of study published in the 2020 Undergraduate Catalog is not consistent with the changes that have occurred in our curriculum recently in
the College of Business. This memo will restate the changes previously approved by the College of Business that should be reflected in the University Catalog. This memo includes new wording for the Catalog. Appendix A will include an updated Program of Study for students who wish to major in Accounting.

## To:

Professor Rand, Chairperson; Professors Fesler, Seay; Associate Professors Davis, Howard, Wilbanks; Assistant Professors Bundy, Garner; Instructor Waggoner

The objective of the accounting program is to provide the educational foundation for careers in accounting. The program includes both general and special education. Courses in the arts, sciences, and business areas are required. A wide variety of accounting courses provide flexibility for different accounting specialties. The curriculum is designed to help students build a strong foundation in the discipline of Accounting, preparing them for a wide variety of career opportunities in both business and professional accounting. The accounting major helps students to meet the requirements of the state's 150hour law for CPA candidacy. Students also have the option to seek a minor in Accounting.

See new Program of Study attached. The changes include:

- Rewriting footnotes.
- Change the DS 3840 requirement.
- Change Math requirement.
- Eliminate ECON 3320

Reason:
The attached Program of Study leading to the completion of a major in Accounting updates the catalog to reflect changes made to the Accounting Program.

Change 1: The core courses in the Accounting major are ACCT 3170, 3180, 3190, 3210, 3330, and 3620. To graduate with a major in Accounting, students must complete all the Accounting core courses with a grade of C or better. A footnote should be added to reflect this requirement.

## From:

No footnote.

To:
${ }^{4}$ Accounting majors must earn a C or better in this course to graduate with a major in accounting.

Change 2: Footnote 1 should be changed to Footnote 5 and the list of Accounting electives should be updated.

## From:

${ }^{1}$ Accounting electives, select one course:
ACCT 4230 (5230) - Advanced Managerial Accounting
ACCT 4340 - Tax Management for Entities
ACCT 4410 - Financial Accounting and Reporting III
ACCT 4530 - Governmental and Not-For-Profit Accounting
ACCT 4600 (5600) - Forensic Accounting and Fraud Auditing
ACCT 4700 (5700) - International Experiences in Accounting
ACCT 4800 - Internship in Accounting
ACCT 4900 - Special Topics

To:
${ }^{5}$ Accounting Electives, select one course:

- ACCT 4230(5230) - Advanced Managerial Accounting
- ACCT 4300 (5300) - Financial Statement Analysis
- ACCT 4530 - Governmental and Not-for-Profit Accounting
- ACCT 4600 (5600) - Fraud Auditing and Forensic Accounting
- ACCT 4700 (5700) - International Experience in Accounting
- ACCT 4800 - Internship in Accounting
- ACCT 4900 - Special Topics

Change 3: Eliminate the current Footnote 2 after the Senior Year
Change 4: DS 3840 should be changed to DS 3841
Change 5: Eliminate ECON 3320 as a required course in the curriculum.
Change 6: Change MATH 1830 Applied Calculus to MATH 1530 Introductory Statistics.

Change 7: Change Program of Study

## FROM:

Basic Business

Freshman Year

First Semester

- DS 2810 - Computer Applications in Business Credit: 3. or
- Humanities/Fine Arts Elective Credit: $3 .{ }^{3}$
- ENGL 1010 - English Composition I Credit: 3. ${ }^{1}$
- MATH 1130 - College Algebra Credit: 3. ${ }^{1}$
- Natural Science Credit: 4. ${ }^{2}$
- UBUS 1020 - Success Skills for Business Studies Credit: 1.

Total: 14

## Second Semester

- COMM 2025 - Fundamentals of Communication Credit: 3. or
- PC 2500 - Communicating in the Professions Credit: 3.
- DS 2810 - Computer Applications in Business Credit: 3. or
- Humanities/Fine Arts Elective Credit: $3 .{ }^{3}$
- ENGL 1020 - English Composition II Credit: $3 .{ }^{1}$
- MATH 1830 - Applied Calculus Credit: 3.
- Natural Science Credit: 4. ${ }^{1}$

Total: 16

Sophomore Year
First Semester

- ACCT 2110 - Principles of Accounting I Credit: 3.
- ECON 2010 - Principles of Microeconomics Credit: 3.
- HIST 2010 - Early United States History Credit: 3.
- 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.
- LAW 2810 - Business Legal Environment and Ethics Credit: 3.

Total: 15

## Second Semester

- ACCT 2120 - Principles of Accounting II Credit: 3.
- ECON 2020 - Principles of Macroeconomics Credit: 3.
- HIST 2020 - Modern United States History Credit: 3.
- Humanities/Fine Arts Elective Credit: $3 .{ }^{3}$
- Elective Credit: $3 .{ }^{2}$

Total: 15

[^1](NOTE: BIOL 1080, CHEM 1310, GEOL 1070 and PHYS 1310 are also university-approved science courses. However, they are better suited to other majors since they are 3 -credit hour classes instead of 4-credits).
${ }^{3}$ Select two courses from the University approved Humanities/Fine Arts list .

## Curriculum

```
Junior Year
```

First Semester

- ACCT 3170 - Financial Accounting and Reporting I Credit: 3.
- ACCT 3210 - Cost Accounting Credit: 3.
- BMGT 3510-Management and Organization Behavior Credit: 3.
- DS 3840-Management Information Systems Credit: 3.
- ECON 3610 - Business Statistics I Credit: 3.

Total: 15

## Second Semester

- ACCT 3180 - Financial Accounting and Reporting II Credit: 3.
- ACCT 3330 - Federal Taxation I Credit: 3.
- Elective Credit: 3.
- FIN 3210 - Principles of Managerial Finance Credit: 3.
- MKT 3400 - Principles of Marketing Credit: 3.

Total: 15

Senior Year

First Semester

- ACCT 3190 - Financial Accounting and Reporting III Credit: 3.
- ACCT 3620 - Auditing I Credit: 3.
- BMGT 3720 - Business Communication I Credit: 3.
- DS 3520-Operations Management Credit: 3.
- ECON 3320 - Money and Banking Credit: 3. or
- ECON 3810 - Intermediate Microeconomics Credit: 3. or
- ECON 3820 - Intermediate Macroeconomics Credit: 3.

Total: 15

## Second Semester

- ACCT Elective Credit: 3. ${ }^{1}$
- BMGT 4930 (5930) - Business Strategy Credit: 3.
- Business Elective Credit: 3. ${ }^{2}$
- DS 3620 - Business Analytics: Data Driven Decision Making Credit: 3.
- Elective Credit: 3. ${ }^{2}$

Total: 15

Note:

[^2]ACCT 4340-Tax Management for Entities
ACCT 4410 - Financial Accounting and Reporting III
ACCT 4530 - Governmental and Not-For-Profit Accounting
ACCT 4600 (5600) - Forensic Accounting and Fraud Auditing
ACCT 4700 (5700) - International Experiences in Accounting
ACCT 4800 - Internship in Accounting
ACCT 4900 - Special Topics
${ }^{2}$ Accounting majors are required to complete eighteen hours of required upper division accounting courses, a three-hour accounting elective, and a three-hour Communications elective for graduation. Elective courses are to be selected in consultation with the academic advisor.

## To: New Program of Study for Accounting Majors

Basic Business
Freshman Year

First Semester

- DS 2810 - Computer Applications in Business Credit: 3. or
- Humanities/Fine Arts Elective Credit: 3. ${ }^{3}$
- ENGL 1010 - English Composition I Credit: 3. ${ }^{1}$
- MATH 1130 - College Algebra Credit: 3. ${ }^{1}$
- Natural Science Credit: $4 .{ }^{2}$
- UBUS 1020 - Success Skills for Business Studies Credit: 1.

Total: 14

Second Semester

- COMM 2025 - Fundamentals of Communication Credit: 3. or
- PC 2500-Communicating in the Professions Credit: 3.
- DS 2810 - Computer Applications in Business Credit: 3.
- Humanities/Fine Arts Elective Credit: 3. ${ }^{3}$
- ENGL 1020 - English Composition II Credit: 3. ${ }^{1}$
- MATH 1830-Applied Calculus Credit: 3.
- MATH 1530 Introductory Statistics Credit: 3
- Natural Science Credit: $4 .{ }^{.2}$

Total: 16

Sophomore Year

First Semester

- ACCT 2110 - Principles of Accounting I Credit: $3 .{ }^{4}$
- ECON 2010 - Principles of Microeconomics Credit: 3.
- HIST 2010 - Early United States History Credit: 3.
- 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
- LAW 2810 - Business Legal Environment and Ethics Credit: 3.

Total: 15

## Second Semester

- ACCT 2120 - Principles of Accounting II Credit: 3. ${ }^{4}$
- ECON 2020 - Principles of Macroeconomics Credit: 3.
- HIST 2020 - Modern United States History Credit: 3.
- Humanities/Fine Arts Elective Credit: $3 .{ }^{3}$
- Elective Credit: $3 .{ }^{z 6}$

Total: 15

Note:

```
1 Must pass course with a grade of C or higher.
2 Select two courses from the following: ASTR 1010, ASTR 1020; BlOL 1010, BlOL 1020, BIOL 1123, BIOL
    2310, BHOL 2010, BHOL 2020; CHEM 1010, CHEM 1020, CHEM 1110, CHEM 1120; GEOL 1040, GEOL
    1045; PHYS 2010, PHYS 2020, PHYS 2110, PHYS 2120.
    -
    (NOTE: BIOL 1080, CHEM 1310, GEOL 1070 and PHYS 1310 are also university-approved science courses.
    However, they are better suited to other majors since they are 3-credit hour classes instead of 4-credits).
3}\mathrm{ Select two courses from the University approved Humanities/Fine Arts list.
Curriculum
```

Junior Year
First Semester

- ACCT 3170 - Financial Accounting and Reporting I Credit: $3 .{ }^{4}$
- ACCT 3210-Cost Accounting Credit: $3 .{ }^{4}$
- BMGT 3510-Management and Organization Behavior Credit: 3.
- DS 3840-Management Information Systems Credit: 3.
- DS 3841 - Management Information Systems Credit: 3
- ECON 3610 - Business Statistics I Credit: 3.

Total: 15
Second Semester

- ACCT 3180 - Financial Accounting and Reporting II Credit: 3. ${ }^{4}$
- ACCT 3330 - Federal Taxation I Credit: $3 .{ }^{4}$
- FIN 3210 - Principles of Managerial Finance Credit: 3.
- MKT 3400 - Principles of Marketing Credit: 3.
- Elective Credit: $3 .{ }^{6}$

Total: 15

Senior Year
First Semester

- ACCT 3190 - Financial Accounting and Reporting III Credit: $3 .{ }^{4}$
- ACCT 3620 - Auditing I Credit: $3 .{ }^{4}$
- BMGT 3720 - Business Communication I Credit: 3.
- DS 3520-Operations Management Credit: 3.
- Elective Credit: 3.
- ECON 3320-Money and Banking Credit: 3. or
- ECON 3810-Intermediate Microeconomics Credit: 3. of
- ECON 3820-Intermediate Macroeconomics Credit: 3.

Total: 15

Second Semester

- ACCT Elective Credit: $3 .{ }^{25}$
- BMGT 4930 (5930) - Business Strategy Credit: 3.
- DS 3620 - Business Analytics: Data Driven Decision Making Credit: 3.
- Business Elective Credit: 3. ${ }^{36}$
- Elective Credit: 3 . $^{36}$

Total: 15
${ }^{1}$ Must pass course with a grade of C or higher.
${ }^{2}$ Select two courses from the following: ASTR 1010, ASTR 1020; BIOL 1010, BIOL 1020, BIOL 1123, BIOL 2310, BIOL 2010, BIOL 2020; CHEM 1010, CHEM 1020, CHEM 1110, CHEM 1120; GEOL 1040, GEOL 1045; PHYS 2010, PHYS 2020, PHYS 2110, PHYS 2120.
(NOTE: BIOL 1080, CHEM 1310, GEOL 1070 and PHYS 1310 are also university-approved science courses. However, they are better suited to other majors since they are 3-credit hour classes instead of 4-credits).
${ }^{3}$ Select two courses from the University approved Humanities/Fine Arts list .
${ }^{4}$ Accounting majors must earn a C or better in this course to graduate with a major in accounting.
${ }^{1}$ Accounting Electives, select one course

- ACCT 4230(5230) - Advanced Managerial Accounting
- ACCT 4300 (5300) - Financial Statement Analysis
- ACCT 4530 - Governmental and Not-for-Profit Accounting
- ACCT 4600 (5600) - Fraud Auditing and Forensic Accounting
- ACCT 4700 (5700) - International Experience in Accounting
- ACCT 4800 - Internship in Accounting
- ACCT 4900 - Special Topics
${ }^{36}$ Electives - Business students must take a minimum of one (1) three-hour upper division business elective. Additional electives are required to complete the credits required for the degree. The additional elective credits may be completed with courses from any discipline at any level. Electives should be chosen in consultation with an academic advisor.
z Accounting majors are required to complete eighteen hours of required upper division accounting courses, a three-hour accounting elective, and a three-hour Communications elective for graduation. Elective courses are to be selected in consultation with the academic advisor.


## 14. Art, Craft \& Design

A. Curriculum and Catalog Changes.

1) CHANGE concentration name FROM Dual-Studio TO General Fine Arts: DualStudio
Effective: Fall 2021
Financial Impact: None
Curriculum Change Sheet: attached.
Justification: To satisfy request of NASAD (art accrediting body)
2) ADD Design Studio to Dual-Studio concentration

Effective: Fall 2021
Financial impact: None
Curriculum change sheet: attached
Justification: to expand our degree options to meet student's interests
3) Glass, Metals, Clay, Fibers, Wood, Painting Curriculum

DELETE Guided Electives: MKT 3400 \& MKT 3900 \& WEBD 1500
Effective: Fall 2021
Financial impact: None
Curriculum change sheet attached.
Justification: To create a TTP of AA to BFA with TBR community colleges.
4) Glass, Metals, Clay, Fibers, Wood, Painting, Design, Art Ed

ADD ART 2540: Intro to Wheel throwing to list of courses under Studio Intro of Choice.
Effective: Fall 2021
Financial impact: None
Curriculum change sheet attached.
Justification: New studio intro course that needs to be added to the list of options.

## 5) Art Education Curriculum

ADD Guided Electives , lecture 3, credits 3.
FREN 1010 \& FREN 1020, OR FREN 2010 \& FREN 2020, OR GERM 1010 \& GERM
1020, OR GERM 2010 \& GERM 2020, OR SPAN 1010 \& SPAN 1020, OR SPAN
2010 \& SPAN 2020
CHANGE FROM Studio Emphasis TO Studio Emphasis OR Guided Elective: Spring
Sophomore year, Spring Junior Year
ADD Art 2540 to list of Craft Class outside of emphasis.
Effective: Fall 2021
Financial impact: None.
Curriculum change sheet: see attached.
Justification: To create a TTP of AA to BFA with TBR community colleges.
6) Painting Curriculum

Change FROM Art Studio or Guided Elective in Spring Senior year TO Elective (not guided) and change FROM 4 credits to 3 credits.
Change FROM Art Studio or Guided Elective in Spring Junior year TO Elective (not guided) and change FROM 4 credits to 3 credits.
Change FROM Art Studio or Guided Elective in fall senior year TO Art Studio Elective.
MOVE ENGL 2130, 2235, 2330 to Spring Senior Year.
ADD Art 2540 to list of Studio Intro of Choice
DELETE Guided Electives: MKT 3400 \& MKT 3900 \& MKT 3200
One General Education Humanities Fine Arts must be ART 2000 or ART 1035 and MOVE from Spring Senior year TO Fall Freshman Year.
Effective: Fall 2021
Financial Impact: None
Curriculum Change Sheet: attached.
Justification: To create a TTP of AA to BFA with TBR community colleges.

## 7) Clay Curriculum

Change FROM Art Studio or Guided Elective in Spring Senior year TO Elective (not guided) and change FROM 2 credits to 3 credits.
Change FROM Art Studio or Guided Elective in Fall Senior year TO Elective (not guided) and change FROM 4 credits to 3 credits.
Change FROM Art Studio or Guided Elective TO Art Studio and MOVE FROM Spring Junior Year TO Spring senior year and CHANGE FROM 2 credit hours TO 4 credit hours.
DELETE Guided Electives: MKT 3200 \& MKT 3900
One General Education Humanities Fine Arts must be ART 2000 or ART 1035
and MOVE from Spring Senior year TO Fall Freshman Year.
MOVE 2nd GEN ED HUFA requirement from spring senior year to fall senior year.
Effective: Fall 2021
Financial Impact: None
Curriculum Change Sheet: attached.
Justification: To create a TTP of AA to BFA with TBR community colleges.

## 8) Design Curriculum

DELETE Guided Electives: JOUR 2200, JOUR 2220, JOUR 3350, JOUR 3370, JOUR 3740, JOUR 4360, COMM 3000, COMM 3120, MKT 3200, MKT 3400, MKT 3430, MKT 3900, COM 1010, COM 1020, PC 3250
MOVE Studio Intro of Choice FROM Fall Junior year TO Fall Senior year.
MOVE elective FROM fall senior year TO Fall Junior Year
CHANGE from Art Studio or Guided Elective TO Elective (fall junior year and spring senior year)
ADD Art 2540 to list of Studio Intro of Choice List
MOVE ART 2000 or ART 1035 from Spring Senior Year to Fall Freshman year
MOVE 2nd GEN ED HUFA from Fall Freshman Year to Spring Senior Year
Effective: Fall 2021
Financial Impact: None
Curriculum Change Sheet: attached.
Justification: To create a TTP of AA to BFA with TBR community colleges.
9) Fibers Curriculum

CHANGE FROM Art Studio or Guided Elective in Fall Senior year TO Elective (not guided) 3 credit hours.
CHANGE FROM Art Studio or Guided Elective in Spring Sophomore year TO Elective (not guided) 3 credit hours.
CHANGE FROM Art Studio or Guided. Elective in Spring Senior year TO Art Studio
ADD Art 2540 to list of Studio Intro of Choice
Students Must take ART 2000 or ART 1035 for 3 credits of Gen Ed HUFA requirement.
MOVE ART 2000 or ART 1035 GEN ED HUFA requirement from spring senior year to fall freshman year.
MOVE 2nd GEN ED HUFA requirement from fall freshman year to spring senior year.
Effective: Fall 2021
Financial Impact: None
Curriculum Change Sheet: attached.
Justification: To create a TTP of AA to BFA with TBR community colleges.

## 10) Glass Curriculum

CHANGE FROM Art studio or guided elective in spring junior year TO Elective (not guided) and change to 3 credit hours.
CHANGE FROM Art studio or guided elective in fall senior year TO elective (not guided) and change to 3 credit hours and MOVE to Spring senior year.
MOVE Art studio elective 4 credits to Fall senior year
MOVE ART 2000 or ART 1035 GEN ED HUFA requirement from spring senior year to fall freshman year.
MOVE 2nd GEN ED HUFA requirement from fall freshman year to spring senior year.
MOVE COMM 2025 or PC 2500 to senior year spring semester
ADD Art 2540 to list of studio intro of choice list
Effective: Fall 2021
Financial Impact: None
Curriculum Change Sheet: attached.
Justification: To create a TTP of AA to BFA with TBR community colleges.

## 11) Metals Curriculum

CHANGE FROM Art Studio or guided elective in spring senior year TO Elective (not guided) and change to 3 credit hours.
CHANGE FROM Art Studio or guided elective in spring junior year TO Elective (not guded) and change to 3 credit hours.
CHANGE FROM Art studio or guided elective in fall senior year TO Art studio elective
One GEN ED HUFA course must be ART 2000 or ART 1035 and MOVE FROM spring senior year to fall freshman year.
MOVE 2nd GEN ED HUFA course from Fall Freshman year to Spring Senior year. ADD ART 2540 to list of studio intro of choice list.
Effective: Fall 2021
Financial Impact: None
Curriculum Change Sheet: attached.

Justification: To create a TTP of AA to BFA with TBR community colleges.
12) Wood Curriculum

CHANGE FROM Art studio or guided elective in spring senior year TO elective (not guided) and change to 3 credit hours.
CHANGE FROM Art studio or guided elective in spring junior year TO elective (not guided) and change to 3 credit hours and MOVE to Spring senior year.
CHANGE FROM Art studio or guided elective in fall senior year TO Art studio elective
One GEN ED HUFA course must be ART 2000 or ART 1035 and MOVE FROM spring. Senior. Year to fall freshman year.
MOVE 2nd GEN ED HUFA course from fall freshman year to spring senior year.
ADD ART 2540 to list of studio intro of choice list.
Effective: Fall 2021
Financial Impact: None
Curriculum Change Sheet: attached.
Justification: To create a TTP of AA to BFA with TBR community colleges.
13) Dual-Studio Design Curriculum

ADD Design studio as a studio core option:
ART 3210-Design Studio I
ART 3220-Design Studio II
ART 3230-Design Studio III
ART 3240-Illustration/Visual Narrative
ART 2220-Typography, Text and Image
ART 4211-Design Practicum
ART 4221-Design Internship
ADD Guided electives: SPAN 1010 \& 1020, or SPAN 2010 \& 2020, OR GERM
1010 \& GERM 1020, OR GERM 2010 \& GERM 2020, OR FREN 1010 \& FREN 1020, OR FREN 2010 \& FREN 2020
CHANGE from Studio intro of choice in spring sophomore year to studio intro of choice OR guided elective.
CHANGE FROM Art Studio or guided elective TO art studio in spring senior year. ADD Art 2540 to list of studio intro course.
Students must take ART 2000 or ART 1035 as 1 of their GEN ED HUFA courses.
MOVE from spring semester senior year to fall freshman year.
MOVE 2nd GEN ED HUFA course to spring senior year.
Effective: Fall 2021
Financial impact: None
Curriculum change sheet: attached
Justification: to meet the needs and interest of our students; to expand curricular offerings which aids in recruitment and retention.

Motion to approve. Lisa Zagumny
Second. Barry Stein
Vote. Motion carried

## 15. Interdisciplinary Studies

A. Course Additions and Course Changes.

1) LIST 4530: Deaf Culture

Lec 3, Lab 0, Credit 3

Course Description: This course is an introduction to Deaf Culture. The focus is on the perspectives of Deaf culture from their community, languages, \& lifestyle. Emphasis is placed on Deaf culture and Deaf people in history, languages, accessibility, education, artist, \& law. Students will analyze and acknowledge how the Deaf community and Hearing community compare in their cultures with languages.
Prerequisite: None
2) LIST 1610 - Major and Career Exploration Lec 3, Lab 0 Credit 3 Course Description: This course supports students who are either undecided in their career aspirations and/or have not fully explored the opportunities they would like to pursue after graduating from college. Within this course, students will be allowed to personally explore and make a thoughtful decision about their major and possible career goals. Students will also explore student life at Tennessee Tech in both academic and non-academic activities.
Prerequisites: None

## 3) Course Changes.

## From:

LIST 4994- Introduction to Capstone Lec 1, Credit 1
Course Description: The purpose of this course is to help prepare students for the Sr. Capstone Course (LIST 4995). 4995 is required of all Interdisciplinary Studies/Professional Studies majors.
Prerequisites: None

To:
LIST 4994- Introduction to Capstone Lec 1, Credit 1

Course Description: The purpose of this course is to help prepare students for the Sr. Capstone Course (LIST 4995). 4995 is required of all Interdisciplinary Studies/Professional Studies majors.

This course is required for all LIST and PRST majors.
Prerequisite: None

Justification: This course has been successfully offered for two semesters as an elective course. This pilot has shown this course to be a helpful addition for these students.

Effective Date: Fall 2021
Motion to approve. Lisa Zagumny
Second. Barry Stein
Vote. Motion carried
16. Civil and Environmental Engineering
A. Course Additions, Course Changes and Curriculum Changes.

1) ADD:

CEE 4460 (5460) - Geospatial Modeling and Analysis in Engineering
Lec. 3. Credit. 3.
Prerequisite: CEE 3020 and 3420. GIS \& spatial data models; projections and coordinate systems; maps, data entry, editing \& output; basic spatial analysis; GPS\& GNSS; aerial \& satellite images; terrain analysis; raster analysis; and spatial estimation.

## 2) ADD:

CEE 3415 - Fluid Mechanics
Lec. 3. Credit 3.
Prerequisite: ME 2330. Fundamental fluid mechanics with focus on hydraulic design of civil engineering systems. Topics include hydrostatics, kinematics, energy and momentum principles, flows through pipes and networks, introduction to open channel flow.

## 3) Course Changes.

## FROM:

CEE 3413 - Environmental Engineering
Lec. 3. Credit 3.
Prerequisite: CHEM 1110 and MATH 2110. Fundamentals of environmental engineering with applications in water quality, water and wastewater treatment, solid waste management, air pollution, and hazardous waste management.

TO:
CEE 3413 - Environmental Engineering
Lec. 3. Credit 3.
Prerequisite: CHEM 1110 and MATH 1920. Fundamentals of environmental engineering with applications in water quality, water and wastewater treatment, solid waste management, air pollution, and hazardous waste management.

## 4) FROM :

CEE 3020 - Surveying
Lec. 2. Lab. 2. Credit 3.
Prerequisite: MATH 2110. Introduction to the fundamental principles, instruments, and techniques associated with surveying for highway purposes.

## TO:

CEE 3600 - Surveying
Lec. 2. Lab. 2. Credit 3.
Prerequisite: MATH 1920. Introduction to the fundamental principles, instruments, and techniques associated with surveying for highway purposes.

## 5) FROM:

CEE (ENGR) 3720 - Engineering Statistics
Lec. 2. Credit 2.
Prerequisite: MATH 1920 and Junior Standing. Engineering applications of probability, hypothesis testing, and confidence intervals.

## TO:

CEE (ENGR) 3720 - Engineering Statistics
Lec. 2. Credit 2.
Prerequisite: MATH 1920. Engineering applications of probability, hypothesis testing, and confidence intervals.

## 6) FROM:

CEE 4700 - Masonry Design
Lec. 2. Rec. 2. Credit 3.
Prerequisite: CEE 3030 and CEE 4320 or consent of instructor. Masonry materials and construction. Design of masonry beams, walls, and columns. Seismic design of masonry structures.

TO:
CEE 4370 - Masonry Design
Lec. 2. Rec. 2. Credit 3.
Prerequisite: CEE 3030 and CEE 4320-or consent of instructof. Masonry materials and construction. Design of masonry beams, walls, and columns. Seismic design of masonry structures.

## 7) FROM:

CEE 3420 - Hydraulics
Lec. 3. Credit 3.
Prerequisite: ME 3720. Fundamental principles and design of water and wastewater supply, stormwater and sanitary sewer systems and their components, including pipes, pumps, storage facilities, detention basins, openchannels, and culverts.

## TO:

CEE 3420 - Hydraulics
Lec. 3. Credit 3.
Prerequisite: ME 3720 or CEE 3415 . Fundamental principles and design of water and wastewater supply, stormwater and sanitary sewer systems and their components, including pipes, pumps, storage facilities, detention basins, openchannels, and culverts.

## 8) FROM:

CEE 4800 - Geotechnical Engineering
Lec. 3. Credit 3.
Prerequisite: CEE 3030 and GEOL 3210 (CEE 3030 and GEOL 3210 may be taken concurrently.) Soil physical properties, classification, permeability and seepage, consolidation, design, and analysis of foundations.

TO:
CEE 4800 - Geotechnical Engineering
Lec. 3. Credit 3.
Prerequisite: CEE 3030; GEOL 3210 or GEOL 1040 (CEE 3030 and GEOL 3210 may be taken concurrently.) Soil physical properties, classification, permeability and seepage, consolidation, design, and analysis of foundations.

Effective Date: Fall 2021

## 9) Curriculum Changes.

1) BSCE

## Freshman Year

First Semester

- CHEM 1110 - General Chemistry I Credit: $4 .{ }^{1}$
- ENGL 1010 - English Composition I Credit: 3.
- ENGR 1110 - Engineering Graphics Credit: 2.
- Humanities/Fine Arts Elective Credit: 3.
- MATH 1910 - Calculus I Credit: 4.
- CEE 1020-Connections to Civil and Environmental Engineering Credit: 1. ${ }^{2}$

Total: 16

Second Semester

- ENGL 1020 - English Composition II Credit: 3.
- Humanities/Fine Arts Elective Credit: 3.
- Social/Behavioral Science Elective Credit: 3.
- MATH 1920 - Calculus II Credit: 4.
- Natural Science Credit: $4 .{ }^{1}$

Total: 17

## Sophomore Year

First Semester

- CEE 2110 - Statics Credit: 3.
- 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.
- MATH 2110 - Calculus III Credit: 4.
- Natural Science Credit: $4 .{ }^{1}$
- Social/Behavioral Science Elective Credit: 3.

Total: 17

## Second Semester

- CEE 3020-Surveving Credit: 3 .
- CEE 3600 - Surveying Credit: 3.
- CEE 3110 - Mechanics of Materials Credit: 3.
- CEE 3710 - Principles of Engineering Economy Credit: 2.
- MATH 2120 - Differential Equations Credit: 3.
- ME 2330 - Dynamics Credit: 3.
- COMM 2025 - Fundamentals of Communication Credit: 3. or
- PC 2500 - Communicating in the Professions Credit: 3.

Total: 17

## Junior Year

First Semester

- CEE 3320-Structural Mechanics Credit: 3.
- CEE 3413 - Environmental Engineering Credit: 3.
- CEE 3500 - Introduction to Construction Engineering Credit: 3.
- CEE 3610 - Transportation Engineering Credit: 3.
- Approved CEE Lab Elective Credit: 1 . $^{6}$
- ME 3720 - Fluid Mechanics Credit: 3. or
- CEE 3415 - Fluid Mechanics Credit: 3.

Total: 16

Second Semester

- CEE 3030-Civil Engineering Materials Credit: 3.
- CEE 3420-Hydraulics Credit: 3.
- GEOL 3210-Geology for Engineers Credit: 3.
- CEE 4310 - Structural Steel Design Credit: 3.
- MATH Elective Credit: 3 . $^{3}$
- CEE 3720 - Engineering Statistics Credit: 2. or
- MATH 3470 - Introductory Probability and Statistics Credit: 3.

Total: 17

## Senior Year

First Semester

- CEE 4320 - Reinforced Concrete Design Credit: 3.
- CEE 4800-Geotechnical Engineering Credit: 3.
- CEE 4920 - Professionalism and Ethics Credit: 1.
- CEE 4940 - Fundamentals of Civil Engineering Credit: 0.
- Approved CEE Elective Credit: $3 .{ }^{4}$
- Approved CEE Sequence Credit: $3 .^{5}$
- ENGR 1120 - Programming for Engineers Credit: 2. or
- ECE 2850 - Principles of Electric Circuit Credit: 3. or
- ME 3210 - Thermodynamics I Credit: 3. or
- CHE 3010 - Thermodynamics of Chemical Processes Credit: 3.

Total: 15

Second Semester

- CEE 4950 - Senior Design Project Credit: 3.
- Approved CEE Lab Elective Credit: $1 .{ }^{6}$
- Approved CEE Elective Credit: 6. ${ }^{4}$
- Approved CEE Sequence Credit: $3^{5}$

Total: 13

Note:
${ }^{1}$ CHEM 1110 and PHYS 2110 are required. Students select either CHEM 1120 or PHYS 2120. Students who intend to pursue the environmental area of emphasis should take CHEM 1120.
${ }^{2}$ This course not included in 128-hour curriculum.
${ }^{3}$ MATH 2010, MATH 3810, MATH 4210 (5210) or MATH 4510 (5510).
${ }^{4}$ Approved CEE Electives: CEE 3100, any 4000-level CEE course.
5
Approved CEE Sequences:

- CEE 4130 (5130), CEE 4160 (5160), CEE 4190 (5190)
- CEE 4130 (5130), CEE 4350 (5350), CEE 4360 (5360), CEE 4370 (5370), CEE 4380 (5380), CEE 4700 (5700), CEE 4810 (5810)
- Structural Mechanics
- Structural Engineering
${ }^{6}$ Select 1 of the following 3 CEE lab courses: CEE 3040, CEE 3120, CEE 3430. Students who select or plan to select the structural mechanics or structures option should take CEE 3120; environmental students should take CEE 3430.

Effective Date: Fall 2021
10) BSCE: Concentration - Environmental Engineering

Freshman Year
First Semester

- CHEM 1110-General Chemistry I Credit: 4. ${ }^{1}$
- ENGL 1010 - English Composition I Credit: 3.
- ENGR 1110 - Engineering Graphics Credit: 2.
- Humanities/Fine Arts Elective Credit: 3.
- MATH 1910 - Calculus I Credit: 4.
- CEE 1020 - Connections to Civil and Environmental Engineering Credit: 1. ${ }^{2}$

Total: 16

Second Semester

- ENGL 1020 - English Composition II Credit: 3.
- Humanities/Fine Arts Elective Credit: 3.
- Social/Behavioral Science Elective Credit: 3.
- MATH 1920 - Calculus II Credit: 4.
- Natural Science Credit: 4. ${ }^{1}$

Total: 17

## Sophomore Year

First Semester

- CEE 2110 - Statics Credit: 3.
- 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.
- MATH 2110 - Calculus III Credit: 4.
- Natural Science Credit: 4 . $^{1}$
- Social/Behavioral Science Elective Credit: 3.

Total: 17

## Second Semester

- CEE 3020-Surveving Credit:3.
- CEE 3600 - Surveying Credit: 3.
- CEE 3110 - Mechanics of Materials Credit: 3.
- CEE 3710 - Principles of Engineering Economy Credit: 2.
- MATH 2120 - Differential Equations Credit: 3.
- ME 2330 - Dynamics Credit: 3.
- COMM 2025 - Fundamentals of Communication Credit: 3. or
- PC 2500-Communicating in the Professions Credit: 3.

Total: 17

## Junior Year

First Semester
$\qquad$

- CEE 3320 - Structural Mechanics Credit: 3.
- CEE 3413 - Environmental Engineering Credit: 3.
- CEE 3430 - Environmental Engineering Lab Credit: 1.
- CEE 3500 - Introduction to Construction Engineering Credit: 3.
- CEE 3610-Transportation Engineering Credit: 3.
- ME 3720 - Fluid Mechanics Credit: 3. or
- CEE 3415 - Fluid Mechanics Credit: 3.

Total: 16

Second Semester

- CEE 3030-Civil Engineering Materials Credit: 3.
- CEE 3420-Hydraulics Credit: 3.
- GEOL 3210-Geology for Engineers Credit: 3.
- CEE 4310 - Structural Steel Design Credit: 3. or
- CEE 4320 - Reinforced Concrete Design Credit: 3.
- CHE 3010 - Thermodynamics of Chemical Processes Credit: 3. or
- ME 3210 - Thermodynamics I Credit: 3
- CEE 3720 - Engineering Statistics Credit: 2. or
- MATH 3470 - Introductory Probability and Statistics Credit: 3.

Total: 17

## Senior Year

First Semester

- CEE 4800-Geotechnical Engineering Credit: 3.
- CEE 4920 - Professionalism and Ethics Credit: 1.
- CEE 4940 - Fundamentals of Civil Engineering Credit: 0.
- Environmental Engineering Elective Credit: $9^{3}$
- ENGR 1120 - Programming for Engineers Credit: 2. or
- ECE 2850 - Principles of Electric Circuit Credit: 3.
$\bullet$
Total: 15

Second Semester

- CEE 4950 - Senior Design Project Credit: 3.
- Approved CEE Lab Elective Credit: 1. ${ }^{4}$
- Approved CEE Elective Credit: $3 .^{5}$
- Environmental Engineering Elective Credit: $6^{3}$

Total: 13

Note:

1 CHEM 1110 and PHYS 2110 are required. Students select either CHEM 1120 or PHYS 2120. Students who intend to pursue the environmental area of emphasis should take CHEM 1120.
2 This course not included in 128-hour curriculum.
3 Environmental Engineering Electives: Any course numbered CEE 4400 through 4499, ESS 3000, GEOG 4510, GEOG 4511, GEOG 4620, GEOG 4650, GEOL 4711; At least 3 of 5 courses must be CEE courses.
4 Approved CEE Lab Elective: CEE 3040 or CEE 3120; CEE 3040 preferred
5 Approved CEE Elective: CEE 3100, any 4000-level CEE course

Effective Date: Fall 2021
B. Addition of New Minor.

The Department is proposing a new minor in Environmental Engineering to provide current and prospective students with the opportunity to expand their knowledge base in coursework specific to Environmental Engineering. This minor is differentiated from the minor in Environmental Studies by focusing on the engineering aspects, though both are complementary.

As such, it is proposed that a minor in Environmental Engineering consist of the following:

Students must complete fifteen (15) semester hours of courses related to environmental engineering including:
and twelve (12) upper division hours from:
CEE 3420 - Hydraulics
Any course numbered CEE 4400-4499
CEE 4990 environmental engineering related special problems with approval of
CEE department chair
ME 3210 or CHE 3010 (Thermodynamics)
CEE 3415 or ME 3720 or CHE 3121 (Fluid Mechanics)
Students pursuing a Bachelor of Science in Civil Engineering should instead pursue to department's concentration in Environmental Engineering.

## C. Addition of New Minor.

Addition of Minor in Materials Science and Engineering
The College is proposing a new minor in Materials Science and Engineering to provide students with the opportunity to expand their knowledge base in interdisciplinary coursework specific to materials. As such, it is proposed that a minor in Materials Science and Engineering consist of the following:

Students must complete fifteen (15) semester hours of coursework related to materials science and engineering including:

ME 3010 - Materials and Processes in Manufacturing
and a minimum of six (6) hours from the following three courses:
CEE 3030 - Civil Engineering Materials
CHE 4330 - Polymer Engineering
ECE 3540 - Physical Electronics
and three (3) to six (6) hours from the following:
CEE 4600 - Civil Engineering Materials II
CHE 4340 - Introduction to Rheology
CHEM 2010 - Introduction to Inorganic Chemistry
CHEM 3005 or CHEM 3010 - Organic Chemistry
CHEM 3500 or CHEM 3510 - Physical Chemistry
CHE 3010 or ME 3210 - Thermodynamics
ME 4460 - Mechanical Properties of Materials
ME 4480 - Microstructural Analysis

ME 4490 - Properties and Selection of Engineering Materials

## Approved Special Problems coursework

Note: Six (6) credits of prerequisites, CEE 2110 and CEE 3110, are required to proceed with the minor. These courses are commonly taken within the College of Engineering and may be taken by any engineering student (CEE, CHE, ECE, ME) as required or elective courses in the respective curricula. As such, these courses are not included in the minor.

Dr. Ben Mohr (CEE) and Dr. Chris Wilson (GBE) will serve as "Chair" for administrative purposes of this minor, in the event of course substitutions and/or curricular changes.

## D. Addition of New Concentration.

## Addition of Concentration in Geological Engineering

Civil engineering is a broad engineering discipline consisting of many sub-disciplines. Geological engineering is a relatively rare discipline, but at the same time, is highly sought after. The Department of Civil and Environmental Engineering Industrial Advisory Board supports the creation of the proposed concentration in Geological Engineering as many representatives have expressed a need for more civil engineering graduates possessing specialized knowledge in geology and materials.

It is also anticipated that the new concentration would also serve as a strong marketing tool for the department and College of Engineering. Graduates of the proposed interdisciplinary concentration in CEE would be highly sought after in the mining, petroleum, and metallurgy industries, expanding the focus and market for the civil engineering program. Graduates may also be employed in traditional civil engineering fields, closing the gap between civil engineering and geology. This concentration will allow students to focus on either the geo-structural or geo-environmental areas, which are both critical to our infrastructure. As the only geological engineering program in the state, this concentration would attract new students to the program.

As such, the Department is proposing a new concentration in Geological Engineering to provide current and prospective students with the opportunity to expand their knowledge base in coursework specific to Geological Engineering, while maintaining a base knowledge of all other Civil Engineering sub-disciplines.

The concentration in Geological Engineering includes 15 credits of Geology coursework in addition to a minimum of 13 credits of related geotechnical engineering coursework, the combination of which forms the basis of the concentration in Geological Engineering.

This concentration does not require any additional resources due to the utilization of existing coursework.

## Summary of Curriculum Changes

- GEOL 1040 added as option to GEOL 3210 (i.e., GEOL 1040 or GEOL 3210); option moved to freshman year in curriculum
- Moved CEE 3030 > CEE 4800 curriculum sequence to start $1^{\text {st }}$ semester junior year and balanced semester credit load...
- moved SBS General Education to senior year,
- moved CEE 3710 > CEE 3500 sequence back a semester to junior year,
- moved CEE 3413 to $2^{\text {nd }}$ semester sophomore and pushing back CEE $3020>$ CEE 3610 sequence back a semester to junior year,
- moved CEE 3040 to $2^{\text {nd }}$ semester junior year
- moved CEE 3720/MATH 3470 to $2^{\text {nd }}$ semester senior year
- Added GEOL 2500 (3cr) as concentration course in curriculum by removing MATH Elective (3cr)
- One of Approved CEE Lab Electives now required CEE 3040 - Geotechnical Engineering Lab
- Added three (3) Geology Electives (9cr)
- Replacing two (2) CEE Sequences (6cr)
- Replacing one (1) CEE Electives (6cr)
- Added CEE 4810 as required course
- Reducing structural engineering required courses from CEE 4310 "and" CEE 4320 to CEE 4310 "or" CEE 4320 (3cr)

Curriculum
Freshman Year
First Semester

- CHEM 1110-General Chemistry I Credit: 4. ${ }^{1}$
- ENGL 1010 - English Composition I Credit: 3.
- ENGR 1110 - Engineering Graphics Credit: 2.
- Humanities/Fine Arts Elective Credit: 3.
- MATH 1910 - Calculus I Credit: 4.
- CEE 1020 - Connections to Civil and Environmental Engineering Credit:

1. ${ }^{2}$

Total: 16

## Second Semester

- ENGL 1020 - English Composition II Credit: 3.
- Humanities/Fine Arts Elective Credit: 3.
- Social/Behavioral Science Elective Credit:3.
- MATH 1920 - Calculus II Credit: 4.
- Natural Science Credit: 4. ${ }^{1}$
- GEOL 1040 - Physical Geology Credit: 4. or
- GEOL 3210-Geology for Engineers Credit: 3.

Total: 17

## Sophomore Year

First Semester

- CEE 2110 - Statics Credit: 3.
- 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.
- MATH 2110 - Calculus III Credit: 4.
- Natural Science Credit: $4 .{ }^{1}$
- Social/Behavioral Science Elective Credit: 3.

Total: 17

## Second Semester

- CEE 3110 - Mechanics of Materials Credit: 3.
- CEE 3413 - Environmental Engineering Credit: 3.
- GEOL 2500 - Geological Fundamentals Credit: 3.
- MATH 2120 - Differential Equations Credit: 3.
- ME 2330 - Dynamics Credit: 3.
- CEE 3600-Surveying Credit:3.
- CEE 3710-Principles of Engineering Economy Credit: 2.
- COMM 2025 - Fundamentals of Communication Credit: 3. or
- PC 2500 - Communicating in the Professions Credit: 3.

Total: 1718

## Junior Year

First Semester

- CEE 3030-Civil Engineering Materials Credit: 3.
- CEE 3320 - Structural Mechanics Credit: 3.
- CEE 3600 - Surveying Credit: 3.
- CEE 3710 - Principles of Engineering Economy Credit: 2.
- Geology Elective Credit: 3. ${ }^{3}$
- CEE 3413-Environmental Engineering Credit: 3.
- CEE 3500-Introduction to Construction Engineering Credit: 3.
- CEE 3610-Transportation Engineering Credit: 3.
- Approved CEE Lab Elective Credit: 1. ${ }^{6}$
- ME 3720 - Fluid Mechanics Credit: 3. or
- CEE 3415 - Fluid Mechanics Credit: 3.

Total: 1617

## Second Semester

- CEE 3040 - Geotechnical Engineering Lab Credit: 1.
- CEE 3420 - Hydraulics Credit: 3.
- CEE 3500 - Introduction to Construction Engineering Credit: 3.
- CEE 3610-Transportation Engineering Credit: 3.
- CEE 4800 - Geotechnical Engineering Credit: 3.
- Geology Elective Credit: 3. ${ }^{3}$
- CEE 3030-Civil Engineering Materials Credit: 3 .
- GEOL 3210-Geology for Engineers Credit: 3.
- CEE 4310-Structural Steel Design Credit: 3.
- MATH Elective Credit: 3. ${ }^{3}$
- CEE 3720-Engineering Statistics Credit: 2. of
- MATH 3470-Introductory Probability and Statistics Credit: 3.

Total: 1716

## Senior Year

First Semester

- CEE 4920 - Professionalism and Ethics Credit: 1.
- CEE 4940 - Fundamentals of Civil Engineering Credit: 0.
- Approved CEE Elective Credit: $3 .{ }^{4}$
- Geology Elective Credit: 3. ${ }^{3}$
- Approved CEE Sequence-Credit:3.5
- CEE 4800-Geotechnical Engineering Credit:3.
- CEE 4310 - Structural Steel Design Credit: 3. or
- CEE 4320 - Reinforced Concrete Design Credit: 3.
- ENGR 1120 - Programming for Engineers Credit: 2. or
- ECE 2850 - Principles of Electric Circuit Credit: 3. or
- ME 3210 - Thermodynamics I Credit: 3. or
- CHE 3010 - Thermodynamics of Chemical Processes Credit: 3.

Total: 1512

## Second Semester

- CEE 3720 - Engineering Statistics Credit: 2. or
- MATH 3470 - Introductory Probability and Statistics Credit: 3.
- CEE 4810 - Foundation Engineering Credit: 3.
- CEE 4950 - Senior Design Project Credit: 3.
- Approved CEE Lab Elective Credit: $1 .{ }^{65}$
- Approved CEE Elective Credit: $63 .{ }^{4}$
- Social/Behavioral Science Elective Credit: 3.
- Approved CEE Sequence-Credit: $3^{5}$

Total: 1315

## Note:

${ }^{1}$ CHEM 1110 and PHYS 2110 are required. Students select either CHEM 1120 or PHYS 2120.
Students who intend to pursue the environmental area of emphasis should take CHEM 1120
${ }^{2}$ This course not included in 128-hour curriculum
${ }^{3}$ Geology Electives: GEOL 3110, 3120, 3200, 3230, 3750, or any 4000-level GEOL course
MATH 2010, MATH 3810, MATH 4210 (5210) or MATH 4510 (5510).
${ }^{4}$ Approved CEE Electives: CEE 3100, any 4000-level CEE course.
${ }^{5}$ Approved CEE Lab Elective: CEE 3120 or CEE 3430; CEE 3430 preferred
Approved CEE Sequences:

- CEE 4130 (5130), CEE 4160(5160), CEE 4190(5190)
- CEE 4130(5130), CEE 4350(5350), CEE

4360 (5360), CEE 4370 (5370), CEE 4380
(5380), CEE 4810 (5810)

- CEE 4410(5410), CEE 4420 (5420), CEE

4430 (5430), CEE 4440 (5440), CEE 4450 (5450)

- CEE 4600 (5600) CEE 4610(5610) CEE

4630(5630), CEE 4640 (5640), CEE 4660(5660)

- Structural Mechanics
- Structural Engineering
- Environmental Engineering
- Transportation Engineering

Motion to approve. Lisa Zagumny
Second. Barry Stein
Vote. Motion carried
17. Mechanical Engineering

## A. Course Additions and Curriculum Changes.

1) ADD:

ME 4380 (5380) - Intro - Data Acq \& Signal Proc
Catalog Data: Lec. 2. Lab. 2. Cr. 3.

Prerequisite: ME 3023, ME 3050 and ME 3060 or Instructor consent. Lab
VIEW programming and data acquisition with commercial hardware digital signal processing basics including sampling, analog-to-digital conversion, quantization, aliasing, and Fourier analysis. Students enrolled in the 5000-level course will be required to complete additional work as stated in the syllabus.
This course needs to be added to the ME Area of Emphasis (AOE) list.

## 2) Curriculum Changes.

ENGR 1020- Connections to Engineering and Tech
Catalog Data: Lec. 1. Cr. 1.
Engages the student in meaningful academic and non-academic, out-ofthe classroom activities involving engineering and technology. Emphasizes critical thinking in the formation of academic and social goals and support groups and in self-management and study skills.

Delete from the BSME, BSME Mechatronics and BSME-Vehicle Engg curriculum

## 3) Curriculum and Catalogue Change:

Mechanical Engineering, B.S.M.E.

Return to: Department of Mechanical Engineering
(Leading to the Bachelor of Science in Mechanical Engineering Degree)
Accredited by the Engineering Accreditation Commission of ABET, http://www.ABET.org
Curriculum

Freshman Year

First Semester

CHEM 1110 - General Chemistry I Credit: 4.
ENGL 1010 - English Composition I Credit: 3.
ENGR 1020-Connections to Engineering and Technology Credit: 1. ${ }^{1}$
ENGR 1110 - Engineering Graphics Credit: 2.

Humanities/Fine Arts Elective Credit: 3.
MATH 1910 - Calculus I Credit: 4.
Core: 1716
Please delete ENGR 1020 from Freshman Fall semester for BSME, BSME Mechatronics and BSME Vehicle Engineering and update the AOE course list for BSME and BSME Vehicle Engineering as indicated below for future catalogue years.

Note:
${ }^{1}$ ENGR 1020 Connections to Engineering and Technology required in the first semester Freshman year to fulfill TTU's UNIV 1020 requirement. Does not count toward the 128 credit hour BSME degree.

Please Replace the entire Area of Emphasis (AOE) course list in the catalogue with what is shown in the attached file ME Area of Emphasis Courses 2021 for better clarity.

Mechanical Engineering, Mechatronics Concentration, B.S.M.E.

Return to: Department of Mechanical Engineering
(Leading to the Bachelor of Science in Mechanical Engineering Degree)
Accredited by the Engineering Accreditation Commission of ABET, http://www.ABET.org
Curriculum

Freshman Year

## First Semester

CHEM 1110-General Chemistry I Credit: 4.
ENGL 1010 - English Composition I Credit: 3.
ENGR 1020-Connections to Engineering and Technology Credit: 1.
ENGR 1110 - Engineering Graphics Credit: 2.
Humanities/Fine Arts Elective Credit: 3.
MATH 1910 - Calculus I Credit: 4.
Total: 17-16

Note:
${ }^{1}$ ENGR 1020 is not part of the 128 hour curriculum.
${ }^{2}$ ECE 3260 (1) recommended if taking ECE 3210.

Mechanical Engineering, Vehicle Engineering Concentration, B.S.M.E.

Return to: Department of Mechanical Engineering
(Leading to the Bachelor of Science in Mechanical Engineering Degree)
Accredited by the Engineering Accreditation Commission of ABET, http://www.ABET.org
Curriculum

Note:
${ }^{1}$ ENGR 1020 is not part of the 128 -hour curriculum.
***PLEASE REPLACE the entire BSME-Vehicle Engineering Curriculum pages in the Catalogue with the content in the attached file BSME Vehicle Engineering Curriculum for better clarity.

Motion to approve. Lisa Zagumny
Second. Barry Stein
Vote. Motion carried
18. Civil and Environmental Engineering
A. Curriculum Changes.

The Department of Manufacturing and Engineering Technology Faculty request the approval of the following curriculum changes:

1. Course Additions, Deletions and Changes

Prerequisite Changes

## 1) From:

MET3200 - Applied Electricity and Electronics
Catalog Data: Lec. 2, Lab 2, Cr. 3
Prerequisite: MATH 1845. Corequisite: PHYS 2020.

To:
MET3200-Applied Electricity and Electronics
Catalog Data: Lec. 2, Lab 2, Cr. 3
Prerequisite: MATH 1845 or MATH 1910 and PHYS 2020 or 2120. PHYS 2020 or PHYS 2120 may be taken concurrently.

## 2) From:

MET3403 - Applied Machine Elements
Catalog Data: Lec. 2, Lab 2, Cr. 3
Prerequisite: MET2400 and MET3301

To:
MET3403-Applied Machine Elements
Catalog Data: Lec. 2, Lab 2, Cr. 3
Prerequisite: MET2400 and MET3301or MET3303

## 3) From:

MET 4000 - Advanced Foundry Technology
Catalog Data: Lec. 2, Lab 2, Cr. 3
Prerequisite: MET3000
To:
MET 4000 - Advanced Foundry Technology
Catalog Data: Lec. 2, Lab 2, Cr. 3
Prerequisite: MET3000 or MET3003

## 4) From:

MET4310 Plant Layout and Material Handling
Catalog Data: Lec. 2, Lab 2, Cr. 3
Prerequisite: MET 3301 or department approval
To:
MET4310 Plant Layout and Material Handling
Catalog Data: Lec. 2, Lab 2, Cr. 3
Prerequisite: MET 3301 or MET3303

## 5) From:

MET4620 Senior Projects
Catalog Data: Lec. 2, Lab 2, Cr. 3
Prerequisite: MET 3260 and MET 3403 or department approval
To:
MET4620 Senior Projects
Catalog Data: Lec. 2, Lab 2, Cr. 3
Prerequisite: MET 3403

## 6) From:

MET 2400 Statics and Strength of Materials
Catalog Data: Lec. 2, Lab 2, Cr. 3
Prerequisite: MATH 1730 or MATH 1710 and MATH 1720 and PHYS 2010
To:
MET 2400 Statics and Strength of Materials
Catalog Data: Lec. 2, Lab 2, Cr. 3
Prerequisite: MATH 1730 or MATH 1710 and MATH 1720 or MATH 1910 and PHYS 2010 or PHYS 2110

## 7) From:

MET 2065 Metal Manufacturing Technology

Catalog Data: Lec. 1, Lab 2, Cr. 2
Prerequisite: ENGR 1110, MET 1100 and MATH 1730 or MATH 1710 and MATH 1720
To:
MET 2065 Metal Manufacturing Technology
Catalog Data: Lec. 1, Lab 2, Cr. 2
Prerequisite: ENGR 1110, MET 1100 and MATH 1730 or MATH 1710 and MATH 1720 or MATH 1910

Motion to approve. Lisa Zagumny
Second. Barry Stein
Vote. Motion carried

## 19. Electrical and Computer Engineering

A. Course Changes and Deletions.

1) From:

ECE 2001. Computer Aided Engineering in ECE. Lec. 1. Credit 1.
Prerequisite: C or better in CSC 1300, C or better in ECE 2010, C or better in MATH 1920, C or better in MATH 2010, and C or better in MATH 2120 (ECE 2010 and/or MATH 2120 may be taken concurrently).
Engineering problem formulation for computer calculations. Computer aided engineering software with applications in electrical and computer engineering.

## To:

ECE 2001. Computer Aided Engineering in ECE. Lec. 1. Credit 1.
Prerequisites: C or better in CSC 1300, C or better in ECE 2010, and C or better in MATH 1920 (ECE 2010 may be taken concurrently).
Engineering problem formulation for computer calculations. Computer aided engineering software with applications in electrical and computer engineering.

## 2) From:

ECE 2010. Electric Circuits I. Lec. 3. Credit 3.
Prerequisite: C or better in MATH 1920, C or better in MATH 2010, and C or better in MATH 2120 (MATH 2120 may be taken concurrently). Introduction to electric circuit quantities and components, systematic application of Ohm's and Kirchhoff's laws, superposition, Thévenin and Norton theorems, operational amplifiers, RL and RC transients, and circuit simulation with SPICE. Circuit applications of probability.

## To:

ECE 2010. Electric Circuits I. Lec. 3. Credit 3.
Prerequisite: C or better in MATH 1920.
Introduction to electric circuit quantities and components, systematic application of Ohm's and Kirchhoff's laws, superposition, Thévenin and Norton theorems, operational amplifiers, RL and RC transients, and circuit simulation with SPICE. Circuit applications of probability.

## 3) From:

ECE 2011. Electrical Engineering Lab I. Lab 3. Credit 1.
Prerequisite: Either C or better in CSC 1300 or C or better in ENGR 2121; C or better in MATH 1920; C or better in MATH 2010; C or better in MATH 2120; and either C or better in ECE 2010 or C or better in ECE 2850 (ECE 2010, ECE 2850, and/or MATH 2120 may be taken concurrently).
Introduction to electrical and electronic components, circuits, test equipment, and measurement techniques.

## To:

ECE 2011. Electrical Engineering Lab I. Lab 3. Credit 1.
Prerequisite: C or better in either CSC 1300 or ENGR 2121, C or better in either ECE 2010 or ECE 2850, and C or better in MATH 1920 (ECE 2010 or ECE 2850 may be taken concurrently).
Introduction to electrical and electronic components, circuits, test equipment, and measurement techniques.

## 4) From:

ECE 2850. Principles of Electric Circuits. Lec. 3. Credit 3.
Prerequisite: C or better in MATH 1920, C or better in MATH 2010, C or better in MATH 2120 (MATH 2120 may be taken concurrently).
Introduction to electric circuit quantities and components, systematic application of Ohm's and Kirchhoff's laws, superposition, Thévenin and Norton theorems, operational amplifiers, RL and RC transients, Laplace transform methods for electric circuit analysis, steady-state ac-circuit solution, power in ac-circuits, and 3 -phase circuits. Will not count for credit for Electrical Engineering or Computer Engineering majors.

## To:

ECE 2850. Principles of Electric Circuits. Lec. 3. Credit 3.
Prerequisite: C or better in MATH 1920.
Introduction to electric circuit quantities and components, systematic application of Ohm's and Kirchhoff's laws, superposition, Thévenin and Norton theorems, operational amplifiers, RL and RC transients, Laplace transform methods for electric circuit analysis, steady-state ac-circuit solution, power in ac-circuits, and 3-phase circuits. Will not count for credit for Electrical Engineering or Computer Engineering majors.

## 5) From:

ECE 2851. Principles of Electric Circuits Laboratory. Lab. 3. Credit 1.
Prerequisite: C or better in MATH 1920, C or better in MATH 2010, C or better in MATH 2120, either C or better in CSC 1300 or C or better in ENGR 2121, and either C or better in ECE 2010 or C or better in ECE 2850 (ECE 2010, ECE 2850, and/or MATH 2120 may be taken concurrently).
Introduction to electrical and electronic components, dc- and ac-circuits, test equipment, and measurement techniques. Will not count for credit for Electrical Engineering or Computer Engineering majors.

To:
ECE 2851. Principles of Electric Circuits Laboratory. Lab. 3. Credit 1.
Prerequisite: C or better in either CSC 1300 or ENGR 2121, C or better in either ECE 2010 or ECE 2850, and C or better in MATH 1920 (ECE 2010 or ECE 2850 may be taken concurrently).
Introduction to electrical and electronic components, dc- and ac-circuits, test equipment, and measurement techniques. Will not count for credit for Electrical Engineering or Computer Engineering majors.

## 6) From:

ECE 3300. Electronics I. Lec. 3. Credit 3.
Prerequisite: C or better in either ECE 2011 or ECE 2851, C or better in either ECE 2020 or ECE 3850, and C or better in ECE 3010 (ECE 3010 may be taken concurrently).
Introduction to semiconductor junction devices and their physical operation, mid-band equivalent circuits, single and multi-stage amplifiers, and SPICE simulation.

## To:

ECE 3300. Electronics I. Lec. 3. Credit 3.
Prerequisite: C or better in either ECE 2011 or ECE 2851, and C or better in either ECE 2020 or ECE 3850.
Introduction to semiconductor junction devices and their physical operation, mid-band equivalent circuits, single and multi-stage amplifiers, and SPICE simulation.

## 7) From:

ECE 4110: Digital System Design. Lec. 3. Credit 3.
Prerequisite: C or better in ECE 2110 and C or better in ECE 3160.
Computer-aided combinational and sequential digital logic analysis, design, and applications, utilizing both standard digital components and programmable logic devices.

To:
ECE 4110: Digital System Design. Lec. 2. Lab. 3. Credit 3.
Prerequisite: C or better in ECE 2110 and C or better in ECE 3160.
Computer-aided combinational and sequential digital logic analysis, design, and applications, utilizing both standard digital components and programmable logic devices.

## 8) Course Deletions:

1) ECE 3810. Fundamentals of Electrical Engineering. Lec. 3. Credit 3. Justification: This course has been replaced by another course.
2) ECE 3860. Fundamentals of Electrical Engineering Lab. Lab. 3. Credit Justification: This course has been replaced by another course.

Motion to approve. Lisa Zagumny<br>Second. Barry Stein<br>Vote. Motion carried

## 20. General and Basic Engineering

A. Course Additions and Changes.

1) $A D D$ :

ENGR 1000. Introduction to Engineering Analysis. Lec. 3. Credit 3. Prerequisite: ACT Math score of 22 or higher, or equivalent placement exam score, or C or better in MATH 1000.
This course introduces the math required in the first two years of most engineering curricula. It is an analysis course that provides a comprehensive introduction to what math topics are used in undergraduate engineering, but it does not provide comprehensive coverage of any single topic. It increases preparation and provides motivation for the required math courses in engineering.
2) 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. This course introduces several of the computational tools needed in the first two years of most engineering curricula. It is a computing and programming course that provides an introduction to what computational tools are used in undergraduate engineering, but it does not provide comprehensive coverage of any tool. It increases preparation and provides motivation for the required math, science, and engineering science used in engineering.
3) 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.
Introduction to engineering communication in professional and technical contexts. Emphasis on writing technical and professional documents, such as memos, emails, reports, and poster presentations; giving oral presentations; working on teams; technical editing; engineering drawings and technical illustrations; and adapting technical information for different audiences.

## Course Changes:

## 1) From:

ENGR (CEE) 3720 - Engineering Statistics
Lec. 2. Credit 2.
Prerequisite: MATH 1920 and Junior Standing. Engineering applications of probability, hypothesis testing, and confidence intervals.

To:
ENGR (CEE) 3720 - Engineering Statistics
Lec. 2. Credit 2.

Prerequisite: MATH 1920. Engineering applications of probability, hypothesis testing, and confidence intervals.

Motion to approve. Lisa Zagumny
Second. Barry Stein
Vote. Motion carried

## 21. Music

A. Course Changes.

1) From:

MUED 1820 - Introduction to Music Education Lab: 3, Credit: 1
Prerequisite: MUS 1140 and MUS 1150.
Introduction to the music education profession with emphasis on observing a variety of K-12 public school teaching/conducting settings. Music Education majors only.

## To:

MUED 1820 - Introduction to Music Education Lab: 3, Credit: 1
Prerequisite: MUS 1140 and MUS 1150.
Introduction to the music education profession with emphasis on observing a variety of K-12 public school teaching/conducting settings. Music Education majors only. A minimum grade of $B$ is required to meet degree requirements.

Add: A minimum grade of $B$ is required to meet degree requirements.
Change: Clarify the description.

## B. Course Changes.

1) From:

MUED 4872 - Professional Seminar I Credit: 5
Prerequisite: Full admission to the Teacher Education Program.
Corequisite: MUED 4871.
Seminar for residency I candidates to develop curriculum, identify effective instructional strategies, and implement appropriate assessment methods to support and meet the needs of all learners.

## To:

MUED 4872 - Professional Seminar I Credit: 5
Prerequisite: Full admission to the Teacher Education Program.
Corequisite: MUED 4871.
Seminar for residency I candidates to develop curriculum, identify effective instructional strategies, and implement appropriate assessment methods to support and meet the needs of all learners. A minimum grade of $B$ is required to meet degree requirements.

Add: A minimum grade of $B$ is required to meet degree requirements. Change: Clarify the description.

## C. Course Changes.

## 1) From:

MUED 4881 - Residency II Credit: 10
Prerequisite: Full admission to the Teacher Education Program and MUED 4871 with a grade of B.

Corequisite: MUED 4882.
Performance based full time clinical experience in authentic settings involving planning appropriate instruction based on student's needs, demonstrating effective instructional strategies, creating a positive learning environment, communicating and collaborating with colleagues and others, effectively assessing student learning and reflecting on practice.

To:
MUED 4881 - Residency II
Credit: 10
Prerequisite: Full admission to the Teacher Education Program and MUED 4871 with a grade of $B$.
Corequisite: MUED 4882.
Performance based full time clinical experience in authentic settings involving planning appropriate instruction based on student's needs, demonstrating effective instructional strategies, creating a positive learning environment, communicating and collaborating with colleagues and others, effectively assessing student learning and reflecting on practice. A minimum grade of $B$ is required to meet degree requirements.

Add: A minimum grade of B is required to meet degree requirements.
Change: Clarify the description.

## D. Course Changes.

1) From:

MUS 1017 - Bassoon Choir Lab: 2, Credit: 1
Prerequisite: none
Preparation of chamber music scores for instruments of the bassoon family. All music majors must achieve a grade of " $C$ " in each music course. If a lower grade is earned, the student must repeat the course.

## To:

MUS 1017 - Double Reed Ensemble Lab: 2, Credit: 1
Prerequisite: none
Preparation for concert performance of chamber music scores for instruments of the double-reed family, and study of reed making techniques. All music majors must achieve a grade of " $C$ " in each music course. If a lower grade is earned, the student must repeat the course.

Change: Title changed from Bassoon Choir to Double Reed Ensemble. First sentence of course description changed to "Preparation for concert
performance of chamber music scores for instruments of the double-reed family, and study of reed making techniques."

## E. Course Changes.

1) From:

MUS 1018 - Saxophone Choir Lab: 2, Credit: 1
Prerequisite: none
Preparation of chamber music scores for instruments of the saxophone family. All music majors must achieve a grade of " C " in each music course. If a lower grade is earned, the student must repeat the course.

To:
MUS 1018 - Saxophone Ensemble Lab: 2, Credit: 1
Prerequisite: none
Preparation of chamber music scores for instruments of the saxophone family. All music majors must achieve a grade of " C " in each music course. If a lower grade is earned, the student must repeat the course.

Change: Title - Saxophone Choir changed to Saxophone Ensemble
Motion to approve. Lisa Zagumny
Second. Barry Stein
Vote. Motion carried
22. Human Ecology
A. Course Additions and Changes.

1) $A D D$ :

HEC 3210 Careers in Nutrition and Dietetics
Lec 1. Credit 1.
Career opportunities in nutrition and dietetics. Roles and responsibilities of Registered Dietitian/Nutritionists. Current issues in professionalism. Routes to professional memberships.
2) HEC 4215 Professional Preparation for Advancement in Nutrition and Dietetics Lec 1. Credit 1.
Preparation of supervised practice applications and supporting documents.
Options for professional credentials, graduate school and careers. Professional issues in dietetics.

## 3) Course Changes.

1) From:

HEC 2800 Introduction to Teaching Family and Consumer Sciences Lec. 2. Lab. 2. Credit 3.
Responsibilities of the family and consumer sciences teacher in the secondary school. Includes observation and participation in local schools.

To:
HEC 2800 Introduction to Teaching Family and Consumer Sciences
Lec. 2. Lab. 2. Credit 3.
Responsibilities of the family and consumer sciences teacher in the secondary school. Includes observation and participation in local schools.
$A$ grade of $B$ is required to meet degree requirements.

## 2) From:

HEC 4872 Professional Seminar I
Credit 5.
Prerequisite: Full admission to the Teacher Education Program.
Corequisite: HEC 4871.
Residency I candidates will develop engaging strategies that support and meet the needs of all learners. Candidates will identify and learn to implement engaging strategies related to students' developmental, cultural and socioeconomic factors.

## To:

HEC 4872 Professional Seminar I Credit 5.
Prerequisite: Full admission to the Teacher Education Program. Corequisite: HEC 4871.
Residency I candidates will develop engaging strategies that support and meet the needs of all learners. Candidates will identify and learn to implement engaging strategies related to students' developmental, cultural and socioeconomic factors.
$A$ grade of $B$ is required to meet degree requirements.

## 4) Curriculum Changes

## Nutrition and Dietetics Curriculum

## 1) From:

Sophomore year: Elective credit 2

## To:

Sophomore Year: Elective credit 3, Total credits in spring of sophomore year is 17 credits

## 2) From:

Senior Year, HEC 3390 Purchasing in Food Service Management

To:
Senior Year, Remove HEC 3390 Purchasing in Food Service Management Senior Year, Fall, Add HEC 4210 Professional Preparation for Advancement in Nutrition and Dietetics 1 credit; Credits are 13 credits Seior Year, Spring Add HEC 3025 Professionalism 1 Credit

Credits become 12 credits

## 3) From:

Junior year, HEC 3025 Professionalism 1 credit

To:
Junior Year (Move HEC 3025 to Senior Year)
Junior Year, spring, Add HEC 3210 Careers in Nutrition and Dietetics
Credit 1
Credits become 16 credits in Junior Year Spring.

## 4) From:

Senior Year, first semester, HEC 3565 Loss and Bereavement for Children and Families 3 credits

## To:

Senior Year, first semester, add choice classes:
HEC 3565 OR HEC 3100 Intercultural Competence 3 credits OR EXPW 4420 Kinesiology 3 credits OR EXPW 4440 Physiology of Exercise Total credits remain the same

## 5) Child Development and Family Relations Curriculum

1) From:

Guided Electives 3 credits ( Second Semester of Freshman Year)

To:
HEC 1010 Life Span Development 3 credits

## B. Addition of New Minor.

Addition of Housing and Design Minor
The School of Human Ecology requests to add a specific minor in Housing and Design. In discussions with Dr. Mohr, Chairperson of Civil Engineering, several Civil Engineering students are interested in pursuing Architecture after leaving Tennessee Tech. This minor would provide some foundation courses in Housing and Design to aid those students in applying to graduate programs; particularly in the development of electronic portfolios. This minor would be appropriate for any student who had an interest in Architectural Graphics, Residential Design and Commercial Design. It is created to provide an overview of the elements of design within an ecological framework.

Required: 15 Hours
HEC 2421 Architectural Graphics (3) (will waive the prereq of HEC 2041 for non-majors) HEC 2440 Computer Aided Design of Residences (3)
HEC 2431 Residential Design I (3)
HEC 3431 Residential Design II (3)
HEC 4450 Commercial Design (3) (will waive the prereq of COMM 2025 for non-majors)

## C. Addition of New Minor.

Addition of Merchandising and Design Minor

The School of Human Ecology requests to add a specific minor in Merchandising and Design. This minor would be appropriate for any student who had an interest in Merchandising, Business of Fashion, Design, and Promotions as related to Fashion and Textiles. It is created to provide an overview of the elements of design within an ecological framework; and is targeted especially to students in Fine Arts and Business who seek additional coursework in Merchandising and Design.

## Required: 15 Hours

HEC 1110 - Concepts of Design
HEC 3350 - Merchandising I (will waive the prerequisite of HEC 1150 for non-majors)
HEC 4320 - Merchandise Promotions and Advertising
HEC 4340 - History of Furnishings and Dress (will waive the prerequisite of HEC 1150 for non-majors)
HEC 4360 - Merchandising II

Motion to approve. Lisa Zagumny
Second. Barry Stein
Vote. Motion carried

## 23. Agriculture

D. Course Additions and Changes.

1) ADD:

AGET 1600 - Practical Applications in Agricultural Systems Lec. 3. Credit 3

The initial offering of AGET 1500 - Practical Applications in Agricultural Systems has proven that 2 hours of lecture is not adequate to meet the scope of the applications covered by all the concentrations offered by the School of

Agriculture at Tennessee Tech University therefore adding another hour of credit would provide adequate time to present applications for all agricultural concentrations.

## 2) Course Changes:

Senior Year 2nd Semester: Remove Elective Credit 0-1

Motion to approve. Lisa Zagumny
Second. Barry Stein
Vote. Motion carried

## 24. Nursing

E. Course Additions.

1) NURS 1010 University and Nursing Orientation (1 lecture credit hour)

Course Description: A course designed to strengthen the student's connection to TTU and the Whitson Hester School of Nursing by engaging the student in meaningful academic and nonacademic activities both in and out of the classroom. It emphasizes critical thinking in the formation of academic and social goals and support groups, and in self-management and study skills. The course includes a career inquiry project/activity, which students should share. Pre and Co-requisites: None
2) NURS 3120 Cultural Competence in Healthcare (3 lecture credit hours)

Course Description: This course considers human diversity through the lens of healthcare. The purpose of this course is to provide a foundation of knowledge, skills, and attitudes that will enable students to better meet the challenges of providing culturally competent care by raising student awareness of diverse cultures and the impact of cultural diversity in healthcare, developing methods of gaining cultural competence when working with diverse cultures in various healthcare settings, and fostering a desire for life-long learning in the pursuit of culturally competent care.
Prerequisites: None
3) NURS 3080 Preparing for Disasters in Healthcare (2 lecture credit hour)

Course Description: This 2-hour credit course will better prepare nursing and health science graduates to respond to disaster response and management. Focus on the dynamics and needs of individuals, families, and communities during the various types of disaster and better prepare healthcare personnel to respond accordingly.
Prerequisite: Nursing Major, Sophomore Standing and Higher, Students of Other Major per Faculty Permission
Corequisites: None

Motion to approve. Lisa Zagumny<br>Second. Barry Stein<br>Vote. Motion carried

## 25. Other Such Matters

A. Election of New Committee Chair.

Jeremy Wendt was unanimously voted to be the chair for the year 2021-2022.

## No other such matters being presented, the meeting was adjourned at 4:09pm.


[^0]:    *Friendly Amendment was made to the third new minor to change the name from Sustainability to Environmental Sustainability.

[^1]:    ${ }^{1}$ Must pass course with a grade of C or higher.
    ${ }^{2}$ Select two courses from the following: ASTR 1010, ASTR 1020; BIOL 1010, BIOL 1020, BIOL 1123, BIOL 2310, BIOL 2010, BIOL 2020; CHEM 1010, CHEM 1020, CHEM 1110, CHEM 1120; GEOL 1040, GEOL 1045; PHYS 2010, PHYS 2020, PHYS 2110, PHYS 2120.

[^2]:    ${ }^{1}$ Accounting electives, select one course:
    ACCT 4230 (5230) - Advanced Managerial Accounting

