**University Curriculum Committee**
**September 21, 2017 Meeting Minutes**

The University Curriculum Committee met on **Thursday, September 21** at **3:00** in the Deans' Conference Room, DBRY 200.

**Members Present:**

| | | | |
|---|---|---|---|
| Melinda Anderson | Julie Baker | Rita Barnes | Doug Bates |
| Brittany Copley | Kristine Craven | Dennis Duncan | Edith Duvier |
| Kurt Eisen | Ahmed Elsawy | Steve Frye | Mike Gotcher |
| Kim Hanna | Mike Harrison | Brandi Hill | Darrell Hoy |
| Sharon Huo | Steve Isbell | Wayne Johnson | Christy Killman |
| Robert Kissell | Hayden Mattingly | Lori Maxwell | Allan Mills |
| Wendy Mullen | Ted Pelton | Richard Rand | Jeff Roberts |
| Joe Roberts | Stephen Robinson | Martin Sheehan | Barry Stein |
| Mark Stephens | Thomas Timmerman | Jeremy Wendt | Janet Whiteaker |
| Brenda Wilson | Kim Winkle | Lisa Zagumny | Courtney Fowler- student |

**Members Absent:**

| | | | |
|---|---|---|---|
| Leslie Crickenberger | Julie Galloway | Adam Grim | Ben Mohr |
| Thomas Payne | Mohan Rao | Lizbeth Self-Mullens | Paul Semmes |
| Jennifer Shank | | | |

**Official Representative(s):**

| | | | |
|---|---|---|---|
| David Crouse for | Jeff Boles | Mark Boshart for | Jerry Gannod |
| Venkat Padmanabhan for | Pedro Arce | | |

**Guest(s):**

| |
|---|
| Christine Seiber- Communication |

**Outline of Proceedings:**

1. Approval of agenda
2. Approval of March 16, 2017 minutes
3. School of Art, Craft, & Design- Common Course Identifiers: Changes of Art Foundations and Art History Course Names and Titles
4. Communication-
   A. Journalism Course Revisions,
   B. Course Addition and Curriculum Change
5. Sociology/Political Science-
   A. POLS, Course Prerequisite Changes,
   B. POLS, Course Addition and Deletion,
   C. SOC, Course Deletion (duplicate)
6. Counseling & Psychology-
   A. Course and Curriculum Changes,
   B. Psychology Curriculum Change
7. Curriculum & Instruction-
   A. Course/Catalog Change,
   B. Curriculum Changes in UG Catalog,
   C. Termination of two Concentrations
8. Chemistry-
   A. Course Name and Description Changes,
   B. Course Changes
9. Foreign Languages- Curriculum Change to Dept. of Foreign Languages
10. General and Basic Engineering- Catalog Changes for Basic Engineering Curriculum
11. Chemical Engineering- Curriculum Modifications
12. Manufacturing & Engineering Technology- Curriculum Changes
13. Environmental & Sustainability Studies- Course Addition
14. General Education- Course Description Phrasing Change
15. Human Ecology- Curriculum Changes
16. Other such matters

**Proceedings**

Perceiving a quorum, Dr. Wendt called the meeting to order at 3:05 p.m.

**1. Approval of agenda.**

***Motion to approve.*** Lisa Zagumny

***Second.*** Christy Killman

***Vote.*** Motion carried.

**2. Approval of previous meeting's minutes- March 16, 2017.**

***Motion to approve.*** Lisa Zagumny

***Second.*** Julie Baker

***Vote.*** Motion carried.

**3. School of Art, Craft, & Design**

***Memo- August 17, 2017 Common Course Identifiers: Changes of Art Foundations & Art History Course Names/Titles***

**From: ART 1030** Art Appreciation, Lec. 3, Credit 3.
**To: ART 1035** Introduction to Art, Lec. 3, Credit 3.

**From: ART 2310** Drawing I, Introduction, Studio 6, Credit 3.
**To: ART 1045** Drawing I, Studio 6, Credit 3.

**From**: **ART 2320** Drawing II, Studio 3, Credit 3.
**To: ART 1050** Drawing II, Studio 3, Credit 3.

**From**: **ART 1010** Two Dimensional Design, Studio 6, Credit 3.
**To**: **ART 1340** Foundations Studio I, Studio 6, Credit 3.

**From**: **ART 2010** Three Dimensional Design, Studio 6, Credit 3.
**To**: **ART 1350** Foundations Studio II, Studio 6, Credit 3.

**From**: **ART 2110** Art History I, Lec. 3, Credit 3.
**To**: **ART 2000** Art History Survey I, Lec. 3, Credit 3.

**From**: **ART 2120** Art History II, Lec. 3, Credit 3.
**To**: **ART 2020** Art History Survey II, Lec. 3, Credit 3.

*Friendly Amendment- Studio hours should be 6 in order to be listed as 3 credit hours. Studio hours were corrected to reflect this.*

***Motion to approve.*** Kim Winkle

***Second.*** Steve Frye

***Vote.*** Motion carried.

**4. Communication**

***A. Memo- August 31, 2017 Journalism Course Revisions***

**I. Change prerequisites for JOUR 3500**

**From: JOUR 3500- Multimedia Storytelling Lec. 3, Credit 3.**
Prerequisite: JOUR 2200 or JOUR 2220. An introductory course in multimedia tools for online content creation. Photography, audio, and video will be used for compelling reporting.

**To: JOUR 3500- Multimedia Storytelling Lec. 3, Credit 3.**

Prerequisite: JOUR 2200 and JOUR 2220 or consent of instructor. An introductory course in multimedia tools for online content creation. Photography, audio, and video will be used for compelling reporting.

***Motion to approve.*** Brenda Wilson
***Second.*** Barry Stein
***Vote.*** Motion carried.

***B. Memo- September 7, 2017 Journalism Course Addition and Curriculum Change***

**I. Course Addition**

**JOUR 4500** – Advanced Multimedia Storytelling Lec. 3, Credit 3.

Prerequisite: JOUR 2200, JOUR 2220, a "C" or higher in JOUR 3500, or consent of instructor. A fast-paced course in content creation for the web and broadcast. May include experience on student media outlets. Associated Press style will be used.

**II. Curriculum Change in Communication Options Elective**

**From: Courses in Digital Multi-Media Communication**

Students take the following four courses.
COMM 3000 - Computer-Mediated Communication (Credit 3)
COMM 3120 - Visual Communication (Credit 3)
COMM 4440 - Semiotics (Credit 3)
JOUR 4853 - Internship (Credit 3)

**To: Courses in Digital Electronic Multi-Media.**

Students take four of the following courses.
COMM 3000 - Computer-Mediated Communication (Credit 3)
COMM 3120 - Visual Communication (Credit 3)
COMM 4440 - Semiotics (Credit 3)
JOUR 4500 - Advanced Multimedia Storytelling (Credit 3)
JOUR 4853 - Internship (Credit 3)

***Motion to approve.*** Brenda Wilson
***Second.*** Barry Stein
***Vote.*** Motion carried.

**5. <u>Sociology and Political Science</u>**

***A. Memo- August 22, 2017 Political Science Course Prerequisite Changes***

**From:** Prerequisite: POLS 1030, or consent of instructor.

**To:** Prerequisite: POLS 1030 or consent of instructor, and POLS 1100 or consent of instructor.

***See memo for list of affected courses.***

***Motion to approve.*** Lori Maxwell
***Second.*** Joe Roberts
***Vote.*** Motion carried.

***B. Memo- August 29, 2017 Political Science Course Addition and Deletion***

**I. Course Deletion from Curriculum.**

**From:**

General Electives 12 hours (listed in the junior year of the POLS 120-hour curriculum); and, General Electives 15 (listed in the junior year of the POLS/LS 120-hour curriculum)

**To:**

General Electives 9 hours (listed in the junior year POLS ~~120-hour~~ curriculum); and, General Electives 12 hours (listed in the POLS/LS 120-hour curriculum, respectively).

***Motion to approve.*** Lori Maxwell
***Second.*** Joe Roberts
***Vote.*** Motion carried.

***C. Memo- August 22, 2017 Course Deletion (Due to Duplication)***

**I. Delete.**

**SOC 1100** Introduction to Anthropology lec. 3, cred 3**-** ***Duplicate of ANTH 1100.***

***Motion to approve.*** Lori Maxwell
***Second.*** Joe Roberts
***Vote.*** Motion carried.

**6. <u>Counseling & Psychology</u>**

***A. Memo- April 24, 2017 Course and Curriculum Changes***

**I. Course Addition.**

**PSY 3030** Careers in Psychology Lec. 3, Credit 3
The course explores the various career paths that can be taken with a degree in psychology, which may include clinical/counseling, cognitive neuroscience, industrial/organizational, healthcare informatics, educational research, and other career applications.

***Motion to approve.*** Barry Stein
***Second.*** Julie Baker
***Vote.*** Motion carried.

***B. Memo- April 12, 2017 Psychology Curriculum Change***

**From: PSY 4150** Psychology of Personality
**To: PSY 4150** Psychology of Personality **or PSY 4160** Abnormal Psychology
***See attached curriculum sheets for new program of study.***

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

**7. Curriculum & Instruction**

***A. Memo- August 23, 2017 Course/Catalog Change***

**I. Course Addition.**

**FOED 3840.** Field Experiences in ESL**,** Lab. 4-12. Credit 1-3.
Prerequisite: Full admission to the Teacher Education Program. Supervised work experiences in public schools stressing the translation of theory into practice. A minimum grade of B is required to meet degree requirements for licensure candidates.

**II. Course Description Changes.**

**Add:** A minimum grade of B is required to meet degree requirements for licensure candidates.
**To course descriptions for:** SEED 4120 (5120), SEED 4121 (5121), SEED 4122 (5122), SEED 4123 (5123), SEED 4124 (5124), SEED 4123 (5125), SEED 4125 (5125), ELED 3140, ELED 3152, ELED 4142

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

***B. Memo- August 23, 2017 Curriculum Changes in Undergraduate Catalog***

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

**FROM: FOED 3800** Field Experience in Education. Credit 1-3. (1 credit hour required)
**TO: FOED 3840** Field Experience in ESL. Credit 1-3. (1 credit hour required)
***See attached curriculum sheet for changes to program of study.***

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

***C. Memo- August 23, 2017 Termination of Two Concentrations within an Existing Major***

**I. Termination.**

Special Education, Modified Program Concentration, B.S.
Multidisciplinary Studies, Middle School Concentration, B.S.

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

**8. Chemistry**

***A. Memo- August 30, 2017 Course Name and Description Changes***

**From: CHEM 3510 Physical Chemistry (Fall, Spring) Lec. 3, Lab. 3, Credit 4.**

Prerequisite: CHEM 1120, MATH 1920, PHYS 2020 or PHYS 2110 (may be taken concurrently.) Introduction to quantum mechanics and spectroscopy, the gas state, thermodynamics and thermochemistry, heterogeneous equilibria, kinetics, electrochemistry, colloids, photochemistry, and the solid state.

**To: CHEM 3510 - Physical Chemistry I (Fall) Lec. 3, Lab. 3, Credit 4.**

Prerequisite: CHEM 1120, MATH 1920, PHYS 2020 or PHYS 2110 (may be taken concurrently.) Introduction to modern, molecular approach to physical chemistry. A moderately rigorous introduction to quantum chemistry covering symmetry, bonding, molecular spectroscopy and statistical mechanics to set a stage for the molecular treatment of thermodynamics and kinetics in CHEM 3520. Lectures are reinforced by a systematic set of modern spectroscopy laboratory experiments.

**From: CHEM 3520 Physical Chemistry (Fall, Spring) Lec. 3, Lab. 3, Credit 4.**

Prerequisite: CHEM 3510. Introduction to quantum mechanics and spectroscopy, the gas state, thermodynamics and thermochemistry, heterogeneous equilibria, kinetics, electrochemistry, colloids, photochemistry, and the solid state.

**To: CHEM 3520 Physical Chemistry II (Spring) Lec. 3, Lab. 3, Credit 4.**

Prerequisite: CHEM 3510. Kinetic theory of gases and Boltzmann distribution, Classical thermodynamics, adiabatic changes and Maxwell equations, heat capacity and equipartition theorem, thermodynamic and statistical entropy, chemical equilibrium, Electrochemistry, Phase transitions and thermodynamic aspects of phases, introduction to chemical kinetics and reaction dynamics. Lectures are
reinforced by a systematic set of classical experiments in thermodynamics and kinetics.

***Motion to approve.*** David Crouse
***Second.*** Lisa Zagumny
***Vote.*** Motion carried.

***B. Memo- August 30, 2017 Course Changes***

**I. Name Change**

**From: CHEM 4310 (5310)** - Nuclear and Radiochemistry (Spring) Lec. 2, Lab. 3, Credit 3.

**To: CHEM 4310 (5310) -** Nuclear Chemistry and Radiochemistry (Spring) Lec. 2, Lab. 3, Credit 3.

**II. Name and Description Changes**

**From: CHEM 4610 (5610) - General Biochemistry (Fall) Lec. 3, Credit 3.**

Prerequisite: CHEM 3010 and CHEM 3020, or consent of instructor. Chemistry of proteins, lipids, carbohydrates and nucleic acids. Includes study of pH, buffer system, and biological separation methods.

**To: CHEM 4610 (5610) - General Biochemistry I (Fall, Spring) Lec. 3, Credit 3.**

Prerequisite: CHEM 3010 and CHEM 3020, or consent of instructor. Chemistry of amino acids, proteins, lipids, carbohydrates, membranes, and nucleic acids. Includes study of pH, enzyme kinetics, three-dimensional structure and biochemical separation methods and analysis.

**From: CHEM 4620 (5620) - General Biochemistry (Spring) Lec. 3, Credit 3.**
Prerequisite: CHEM 4610 (5610). Intermediary metabolism, bioenergetics, and biosynthesis.
**To: CHEM 4620 (5620) - General Biochemistry II (Spring) Lec. 3, Credit 3.**
Prerequisite: CHEM 4610 (5610). Intermediary metabolism and its regulation, bioenergetics and photosynthesis, and biosynthesis of proteins and nucleic acids.

***Motion to approve.*** David Crouse
***Second.*** Lisa Zagumny
***Vote.*** Motion carried.

**9. <u>Foreign Languages</u>**

***Memo- August 25, 2017 Curriclum Change to Department of Foreign Languages***

**I. Foreign Languages, German Option 1, B.A.**

**FROM:**
HIST 4640 History of Modern Germany
**Select one:**
HIST 4530 Renaissance and Reformation
HIST 4540 Absolutism and Enlightenment
HIST 4550 French Revolution and Napoleon
HIST 4560 19th Century Europe
HIST 4570 World War II and the Cold War
**TO:**
HIST 4640 History of Modern Germany
**And one of the following:**
HIST 4530 Renaissance and Reformation
HIST 4540 Absolutism and Enlightenment
HIST 4550 French Revolution and Napoleon
HIST 4560 19th Century Europe
HIST 4570 World War II and the Cold War
**OR**
**Two courses lower level sequence in another foreign language taught in the foreign language.**

***Motion to approve.*** Martin Sheehan
***Second.*** Jeff Roberts
***Vote.*** Motion carried.

**10. General and Basic Engineering**

***Memo- August 17, 2017 Catalog Changes for Basic Engineering Curriculum***

**FROM:**

CHEM 1110 - General Chemistry I Credit: 4. [1]
CHEM 1120 - General Chemistry II Credit: 4. [1]
ENGR 1020 - Connections to Engineering and Technology Credit: 1. [2]
ENGR 1110 - Engineering Graphics Credit: 2. [1]
ENGR 1120 - Programming for Engineers Credit: 2. [1]
ENGR 1210 - Introduction to Engineering Credit: 1.
ENGL 1010 - English Composition I Credit: 3.
ENGL 1020 - English Composition II Credit: 3.
MATH 1910 - Calculus I Credit: 4.
MATH 1920 - Calculus II Credit: 4.
Humanities/Fine Arts Electives Credit 6
Total: 34
Notes:
1. Students should consult with their advisor prior to taking ENGR 1110, ENGR 1120 or CHEM 1120 to ensure the courses are applicable to the Engineering disciplines in which the student has potentital interest.
2. This course not included in 128-hour curriculum.

**TO:**

CHEM 1110 - General Chemistry I Credit: 4. [1]
PHYS 2110 - Calculus-based Physics I Credit: 4. [1]
~~CHEM 1120 - General Chemistry II Credit: 4.~~ [1]
ENGR 1020 - Connections to Engineering and Technology Credit: 1. [2]
ENGR 1110 - Engineering Graphics Credit: 2. [1]
ENGR 1120 - Programming for Engineers Credit: 2. [1] OR
CSC 1300 - Introduction to Problem Solving and Computer Programming Credit: 4. [1]
~~ENGR 1210 - Introduction to Engineering Credit: 1.~~
ENGL 1010 - English Composition I Credit: 3.
ENGL 1020 - English Composition II Credit: 3.
MATH 1910 - Calculus I Credit: 4.
MATH 1920 - Calculus II Credit: 4.
Humanities/Fine Arts and/or Social/Behavioral Sciences Electives Credit 6
Total: ~~34~~ 33/35
Notes:
1. Students should consult with their advisor prior to taking ENGR 1110, ENGR 1120, CSC 1300, ~~or CHEM 1120,~~ or PHYS 2110 to ensure the courses are applicable to the Engineering disciplines in which the student has ~~potentital~~ potential interest.
2. This course not included in 128-hour curriculum.

***Motion to approve.*** Kristine Craven
***Second.*** Barry Stein
***Vote.*** Motion carried.

**11. Chemical Engineering**

***Memo- August 17, 2017 Catalog Changes for Basic Engineering Curriculum***

**I. Course Additions.**

**BIOL 3230-** Health Science Microbiology. Lec. 2, Lab 4, Credit 4.
Justification: Students may take either BIOL 3200 or BIOL 3230. Eliminates Substitution forms.

**CHE 1020-** Processes, Products & Ethics. Lec. 1, Credit 1.
Professionalism and Ethics are central in the practice of Engineering. Fundamental program outcome addressed formally in this course and applied throughout the curriculum in various manners.
Justification: Changing CHE 4910 from senior year to CHE 1020 freshmen year.

**CHE 2015-** Intro to Chem & Bio Process Analysis & Scaling I. Lec. 2, Lab 2, Credit 3.
Prerequisite: ENGR 1120 and MATH 1920. May be taken concurrently. Introduction to basic concepts of chemical engineering including unit analysis, balance concepts and various mathematical tools including use of software such as Excel, MatLab and Visual Basic.
Justification: Course is equivalent to CHE 1520. Move to Fall 2nd Year.

**II. Course Deletions.**

**CHE 1520 -** Intro to Chem & Bio Process Analysis & Scaling I Lec. 2, Lab 2, Credit 3
Justification: Changing number to CHE 2015 and moving to sophomore year in the curriculum line up.

**CHE 4910-**Prof and Ethics in ChE
Justification: Changing number to CHE 1020 and moving to Freshmen year.

**III. Course Changes.**

**CHE 2020-** Intro to Chem & Bio Process Analysis & Scaling II. Lec. 2, Lab 2, Credit 3
**From:** Prerequisite: ENGR 1120, CHEM 1120, and MATH 1920
Quantitative descriptions of chemical and biological engineering systems. Conservation of mass and energy for single and multi-process units as well as for reactive and non-reactive systems. Lab introduces report writing and basic measurement techniques.
**To:** Prerequisite: ENGR 1120, C or better in CHE 2015, MATH 1920, and CHEM 1120.
Quantitative descriptions of chemical and biological engineering systems. Conservation of mass ~~and energy~~ for single and multi-process units as well as for reactive and non-reactive systems. Lab introduces report writing and basic measurement techniques.

**CHE 3010- Thermodynamics of Chemical Processes. Lec. 3 Credit 3**
**From:** Prerequisite: CHE 1520, CHE 2020, CHEM 1120 and MATH 1910
**To:** Prerequisite: ~~CHE 1520,~~ CHE 2015. Minimum grade of C. ~~CHEM 1120,~~ CHE 2020, MATH 2110, and MATH 2120

**CHE 3111- Trans Sci I: Cond, Raditn, Diff**
**From:** Prerequisite: CHE 2020, Math 2110, Math 2120
**To:** Prerequisite: CHE 2015, CHE 2020, MATH 2110, and MATH 2120

**CHE 3021- Separations/Solution Thermo**

**From:** Prerequisite: CHE 3010. Minimum grade of D. May not be taken concurrently.

**To:** Prerequisite: CHE 3010, MATH 2110, and MATH 2120. ~~Minimum grade of D. May not be taken concurrently.~~

**CHE 3121- Transfer Sci II: Fluid Mechanics**

**From:** Prerequisite: CHE 2020 and Math 2110. Corequisite: Math 2120

**To:** Prerequisite: ~~CHE 2020,~~ CHE 3111, Math 2110, ~~Corequisite:~~ and Math 2120.

**CHE 3730- CHE Operations**

**From:** Prerequisite: CHE 1520.

**To:** Prerequisite: ~~CHE 1520.~~ CHE 2015. Minimum grade of C. May not be taken concurrently. Math 2110 and Math 2120. Math 2120 may be taken concurrently.

**CHE 4131(5131)- Transfer Science III: Diffusion-Convective Mass Transfer**

**From:** Prerequisite: CHE 3010, CHE 3021, and CHE 3121

**To:** Prerequisite: CHE 3010, CHE 3021, CHE 3111, and CHE 3121.

**CHE 4210- Chemical Reaction Engineering**

**From:** Prerequisite: CHE 3021, CHE 3121. Minimum grade of D.

**To:** Prerequisite: CHE 3010, CHE 3021, CHE 3111, and CHE 3121. ~~Minimum grade of D.~~

**CHE 4410- Process Design I**

**From:** Prerequisite: CHE 3020, CHE 3021 and CHE 3121

**To:** Prerequisite: ~~CHE 3020,~~ CHE 3021 and CHE 3121.

**CHE 4661- Transport in Biochem/Biol Proc**

**From:** Prerequisite: CHE 4210

**To:** Prerequisite: CHE 3111, CHE 3121, CHE 4131, CHE 4210.

***Motion to approve.*** Venkat Padmanabhan

***Second.*** Barry Stein

***Vote.*** Motion carried.

**12. <u>Manufacturing and Engineering Technology</u>**

***Memo- September 5, 2017 MET Curriculum Changes***

**I. Course Changes.**

**From: MET 4000 - Advanced Foundry Technology Lec. 2, Lab 2, Credit 3.**

Prerequisite: MET 3000. Study of advanced foundry processes, gating system design, die/pattern design and mechanization of foundry. Students enrolled in the 5000-level course will be required to complete additional work as stated in the syllabus.

**To: MET 4000 (5000) - Advanced Foundry Technology Lec. 2, Lab 2, Credit 3.**
Prerequisite: MET 3000. Study of advanced foundry processes, gating system design, die/pattern design and mechanization of foundry. Students enrolled in the 5000-level course will be required to complete additional work as stated in the syllabus.

**II. Curriculum Changes.**

**From:** Emphasis I: Mechatronics Engineering Technology
**To:** Concentration I: Engineering Technology Management

**From:** Emphasis II: Engineering Technology Management
**To:** Concentration II: Engineering Technology Management

**Add:**
**MET 3260**- Industrial Electronics (Credit 2) to Concentration I as a required course

**Delete:**
**MET 4010**- from Concentration II

**Credit Hours:**
B.S. in Engineering Technology total credit hours to 123 from 120.

***Motion to approve.*** Ahmed Elsawy
***Second.*** Lisa Zagumny
***Vote.*** Motion carried.

**13. Environmental and Sustainability Studies**

***Memo- February 8, 2017 Course Addition to Gen Ed Curriculum- School of Environmental Studies***

**I. ESS 1100**. Introduction to Environmental Studies**. Lec. 3. Credit 3.**
Prerequisites: None Course Description: This course provides a general introduction to the field of environmental studies. Environmental issues are often complex, involving interconnections among people, societies, ecosystems and the biosphere. The interdisciplinary nature of environmental studies requires an understanding of diverse areas of study. Students will explore a variety of environmental concerns, engaging them via particular case studies and topical overviews, using an evaluative lens to consider the possible human causes of these environmental problems and the potential societal solutions to them.

***Motion to approve.*** Kurt Eisen
***Second.*** Steve Frye
***Vote.*** Motion carried.

**14. General Education**

***Memo- September 12, 2017 Change in General Education course description identifier phrasing***

**From:** Meets Tennessee Technological University and Tennessee Board of Regents minimum degree requirements.

**To:** Meets Tennessee Technological University general education requirement (*category*).

***"Category" i.e. social/behavioral science; English composition; humanities/fine arts, etc. See memo for complete list of affected courses.***

***Motion to approve.*** Kurt Eisen
***Second.*** Julie Baker
***Vote.*** Motion carried.

**15. Human Ecology**

***Memo- September 8, 2017 Curriculum Changes***

**I. Course Deletion.**

**HEC 2060** The Family System Credit 2.

**II. Curriculum Changes.**

**From: HEC 3591: Child Life Clinical Preparation Lec 2. Credit 2.**
**To: HEC 3591: Introduction to Child Life Clinical Experience Lec. 2. Credit 2.**

**From: HEC 4590: Clinical Child Life Experience Credit 12.**
Prerequisite: Senior Standing, HEC 3570 and HEC 4550.
Supervised work experience in a pediatric health care facility to develop clinical child life skills. Direct supervision by a Certified Child Life Specialist in good standing with the Child Life Council is required. In order to meet the Child Life Council eligibility requirements to sit for the Child Life Certification Exam, the Child Life Internship experience must be a minimum of 480 clock hours.
**To: HEC 4590: Child Life Clinical Experience Credit 12.**
Prerequisite: Senior Standing, HEC 3570 and HEC 4550.
Supervised clinical (internship) experience in a ~~pediatric~~ health care facility to develop clinical child life skills. Direct supervision by a Certified Child Life Specialist in good standing with and meeting supervisor qualifications of the Association of Child Life Professionals is required. In order to meet the Association of Child Life Professional's eligibility requirements to sit for the Professional Child Life Certification Exam, the child life clinical experience must be a minimum of 600 ~~clock~~ hours.

**From: HEC 2250: Child Life Theory and Practice Lec. 3 Credit 3.**
Introduction to the field of child life, the role of the child life specialist in health care, theory, professional practices, overview of Child Life Council and certification process. Course istaught by a Certified Child Life Specialist.
**To: HEC 2250: Child Life: Theory and Practice Lec. 3 Credit 3.**
Introduction to the field of child life, the role of the Certified Child Life Specialist with children and families, theoretical foundations, professional practice, overview of Association of Child Life Professionals, certification eligibility requirements and process.

**From: HEC Family and Consumer Sciences Education Concentration Note:**

1. Student working toward teacher certification must take HEC 4871, HEC 4872, HEC 4881 and HEC 4882 and must complete all requirements for admission to Teacher Education program. Students seeking non-licensure HEED must take 22 credit hours including: HEC 4000 (1 hour) HEC 4990 (12 hours) and three hours of upper division electives to total nine hours.

**To: HEC Family and Consumer Sciences Education Concentration Note:**

1. Student working toward teacher certification must take HEC 4871, HEC 4872, HEC 4881 and HEC 4882 and must complete all requirements for admission to Teacher Education program. Students seeking non-licensure HEED must take 22 credit hours including: HEC 4005 (2 hours) HEC 4990 (12 hours) and a total of eight credit hours of electives, three hours of which must be upper division credits, to total 22 credits.

**From: HEC 1030 Introduction to Nutrition Lec 2. Credit 2.**

Principles of basic nutrition for personal lifestyle choices and selection of foods for promotion and maintenance of health throughout the lifespan.

**To: HEC 1030 Introduction to Nutrition Lec. 2. Credit 2.**

Principles of basic nutrition for personal lifestyle choices and selection of foods for promotion and maintenance of health throughout the lifespan. HEC 1030 cannot be substituted for HEC 2020.

***Motion to approve.*** Melinda Anderson
***Second.*** Julie Baker
***Vote.*** Motion carried.

**16. Other Such Matters.**

**None.**

Meeting adjourned at 3:56 p.m.

School of Art, Craft & Design

TENNESSEE TECH

**MEMORANDUM**

**TO:** University Curriculum Committee

**VIA:** College of Fine Arts Executive Leadership Council

**FROM:** School of Art, Craft & Design

**DATE:** August 17, 2017

**SUBJECT:** Common Course Identifiers: Changes of Art Foundations and Art History Course Names and Titles

The following changes of course numbers and/or titles is in accordance with the list of common course identifiers agreed upon at Tennessee Board of Regents meetings to facilitate the operation of the Tennessee Transfer Paths. All other information in the catalog remains unchanged.

**Change:**

From: ART 1030 Art Appreciation, Lec. 3, Credit 3.
To: ART 1035 Introduction to Art, Lec. 3, Credit 3.

From: ART 2310 Drawing I, Introduction, Studio 6, Credit 3.
To: ART 1045 Drawing I, Studio 6, Credit 3.

From: ART 2320 Drawing II, Studio 6, Credit 3.
To: ART 1050 Drawing II, Studio 6, Credit 3.

From: ART 1010 Two Dimensional Design, Studio 6, Credit 3.
To: ART 1340 Foundations Studio I, Studio 6, Credit 3.

From: ART 2010 Three Dimensional Design, Studio 6, Credit 3.
To: ART 1350 Foundations Studio II, Studio 6, Credit 3.

From: ART 2110 Art History I, Lec. 3., Credit 3.
To: ART 2000 Art History Survey I, Lec. 3., Credit 3.

From: ART 2120 Art History II, Lec. 3., Credit 3.
To: ART 2020 Art History Survey II, Lec. 3., Credit 3.

Rationale: These changes of course numbers and titles will facilitate participation of Tennessee Tech's BFA curricula in Tennessee Transfer Path programs.

**Financial impact:** None

**Effective:** Fall 2018

**Memorandum**

**TO:** University Curriculum Committee

**VIA:** Arts and Sciences Curriculum Committee

**FROM:** Dr. Brenda Wilson, Communication Department Chair

**DATE:** August 31, 2017

**RE:** **Journalism Course Revisions**

## I. Course Revisions

Change prerequisites for JOUR 3500.

From: JOUR 3500. Multimedia Storytelling

Lec. 3. Credit 3.
Prerequisite: JOUR 2200 or JOUR 2220. An introductory course in multimedia tools for online content creation. Photography, audio, and video will be used for compelling reporting.

To: JOUR 3500. Multimedia Storytelling

Lec. 3. Credit 3.
Prerequisite: JOUR 2200 and JOUR 2220 or consent of instructor. An introductory course in multimedia tools for online content creation. Photography, audio, and video will be used for compelling reporting.

**Justification**

Change "or" to "and" in the prerequisites to lay a stronger foundation for the course content. Adding "consent of instructor" allows for exceptions on a case-by-case basis.

**Effective Date**
Fall 2018

**Cost**
None

**Memorandum**

**TO:** University Curriculum Committee

**VIA:** Arts and Sciences Curriculum Committee

**FROM:** Dr. Brenda Wilson, Communication Department Chair

**DATE:** September 7, 2017

**RE:** **Journalism Course Addition and Curriculum Change**

**I. Course Addition**

JOUR 4500 – Advanced Multimedia Storytelling, Lec. 3. Credit 3.
Prerequisite: JOUR 2200, JOUR 2220, a "C" or higher in JOUR 3500, or consent of instructor. A fast-paced course in content creation for the web and broadcast. May include experience on student media outlets. Associated Press style will be used.

**Justification**

Course is the continuation of JOUR 3500—Multimedia Storytelling—and reflects industry trends.

**II. Curriculum Change in Communication Options Elective**

**From:**

**Courses in Digital Multi-Media Communications**

Students take the following four courses.

- COMM 3000 - Computer-Mediated Communication (Credit 3)
- COMM 3120 - Visual Communication (Credit 3)
- COMM 4440 - Semiotics (Credit 3)
- JOUR 4853 - Internship (Credit 3)

**To:**

**Courses in Digital Multi-Media Communications**

Students take four of the following courses.

- COMM 3000 - Computer-Mediated Communication (Credit 3)
- COMM 3120 - Visual Communication (Credit 3)
- COMM 4440 - Semiotics (Credit 3)
- JOUR 4500 - Advanced Multimedia Storytelling (Credit 3)
- JOUR 4853 - Internship (Credit 3)

**Justification**

Will add variety for students interested in this field of study. Curriculum change would affect both News Editorial and Public Relations Options for Communication/Journalism majors.

**Effective Date**

Fall 2018

**Cost**

None

# Tennessee Tech University
# Communication Department
# JOUR 4500: Advanced Multimedia Storytelling

Instructor: Christine Seiber, cseiber@tntech.edu, 931-372-6052, @seibersays
Email for a timely response. Do not contact me through the iLearn messaging service.
Office hours: Monday through Thursday from 9-11 a.m. in HEND 002B or by appointment

JOUR 4500-Section 001: Time and location to be determined, 3 credits, Spring 2018
Class hashtag: #TTUjournalism
Prerequisite: JOUR 2200, JOUR 2220 and a "C" or higher in JOUR 3500 (or consent of instructor)
Teaching Methods and Instructional Materials: Lecture, reading, hands-on audio and video production, writing assignments, iLearn
Special Instructional Platform/Materials: Smartphone with video camera capability and a portable hard drive (500 GB or larger) or flash drive (16 GB or larger) to transport your files to and from labs. An SD card (16 GB or larger) is also recommended for photography and video assignments.

## Required Text

- There is not a required textbook for this class, but you may have to purchase apps for your Apple or Android devices (to be determined)
- Supplemental reading will be provided by instructor

## Recommended Texts

- *Associated Press Stylebook* 2017 (the 2016 and 2015 editions are acceptable)
- *HTML & CSS: Design and Build Websites*, John Duckett, 1st edition

## Course Description and Objectives

This is a hands-on course about introductory web design and content creation for the web and broadcast. Assignments may include working for student media outlets. Knowledge of Associated Press style is required.

Content will be original work created for the course. The instructor will attempt to make classes feel like a professional newsroom. When an assignment is due, the instructor (editor) will explain what is expected of students (reporters) and give them a deadline and ample time to complete the work. Occasionally, this will mean allocating class time for research, interviews, etc. That being said, do not ask the instructor if class will let out early.

At the completion of this course, students will understand how to create, edit and prepare news stories for the web. User experience will also be emphasized.

## Attendance Policy

Regular attendance and participation are required. Attendance will be recorded for every class. After two unexcused absences, you lose 10 participation points for each missed class. For example, if you miss four classes, your final attendance/participation score will be 80.

Absences may be given at the instructor's discretion for excessive tardiness or for using phones or computers for unrelated work. For an absence to be excused, email the instructor in advance and bring a written excuse (doctor's note, memo from athletics department, etc.) to the next class.

Missed assignments cannot be made up unless the student contacts the instructor in advance with a documented reason. In those cases, a makeup date will be arranged.

## Course Chronology

This schedule is subject to change because of unforeseen circumstances, inclement weather, class pace, etc. Changes will be announced in class, on iLearn and/or through your Tech student email account.

| Week | Topics of Discussion | Assignment Due |
|---|---|---|
| Week 1 (Jan. 16-19) | • Intro to course<br>• Oracle assignments set | |
| Week 2 (Jan. 22-26) | • Competitive analysis<br>• Develop reader survey<br>• WordPress | |
| Week 3 (Jan. 29-Feb. 2) | Introduce studio interview assignment | Oracle assignment 1 due in class on Jan. 31 |
| Week 4 (Feb. 5-9) | • In-class workshop on Feb. 5<br>• HTML and CSS | • Oracle publishes Feb. 6<br>• Studio interview source due |
| Week 5 (Feb. 12-16) | • Videography and captions<br>• Adobe Spark | Oracle assignment 2 due in class on Feb. 14 |
| Week 6 (Feb. 19-23) | • In-class workshop on Feb. 19<br>• HTML and CSS quiz | Oracle publishes Feb. 20 |
| Week 7 (Feb. 26-March 2) | Discuss reader survey results | Studio interview due in class on Feb. 26. Bring files on a portable storage device. |
| Week 8 (March 5-9) | Spring break (no class) | |
| Week 9 (March 12-16) | Usability testing | Oracle assignment 3 due in class on March 14 |
| Week 10 (March 19-23) | In-class workshop on March 19 | Oracle publishes March 20 |
| Week 11 (March 26-30) | TBD | Oracle assignment 4 due in class on March 28 |
| Week 12 (April 2-6) | In-class workshop on April 2 | • Oracle publishes April 3<br>• Usability testing materials due April 4 at the start of class. Bring files on a portable storage device. |

| Week | Topics of Discussion | Assignment Due |
|---|---|---|
| Week 13 (April 9-13) | Introduce reflection paper assignment | Oracle assignment 5 due in class on April 11 |
| Week 14 (April 16-20) | In-class workshop on April 16 | Oracle publishes April 17 |
| Week 15 (April 23-27) | TBD | Reflection paper due in class on April 23. Paper must be typed. |
| Week 16 (April 30-May 4) | Finals week | |

## Final Exam Time

Time to be announced by the university. However, an exam will not be given. Content revisions may be accepted during this final exam time at the discretion of the instructor.

## Assignments

Assignments uploaded to the iLearn dropbox must be **.doc**, **.docx**, **.rtf** or **.pdf** format. Files not uploaded in this format or files that will not properly open will receive a failing grade. Work submitted via email will not be accepted unless explicitly asked for by the instructor.

Deadlines are a way of life in journalism. Late assignments face significant point deductions.

## Grading and Evaluation

This course is worth 800 points, distributed as follows:

Oracle 1: 100 points
Oracle 2: 100 points
Oracle 3: 100 points
Oracle 4: 100 points
Oracle 5: 100 points
Usability test: 50 points
Studio interview: 100 points
Reflection paper: 50 points
Attendance/participation: 100 points

Final grades will be calculated by the following scale: A=800-720 points, B=719-640 points, C=639-560 points, D=559-480 points, F=Below 480.

For a good grade, complete the assignment on time and demonstrate proficiency in the subject matter with a minimum of writing and technical errors. Possible deductions include—but are not limited to—the following:

-2 points for each AP style, grammar or punctuation error
-5 points for each spelling error or factual error (misspelled name, incorrect title, etc.)
-5 points for technical errors (vertical video, poor audio quality, etc.)
-10 points for each day past deadline

An “F” will be given for an assignment if any of the following occur: Libelous material, plagiarism, and fabricated or inappropriate sources. Inappropriate sources include classmates, friends, family and/or anonymous people. Exceptions to this rule will be made at the instructor's discretion.

## Emergency Location

If an emergency situation affecting Tech’s campus prevents us from using this building for class meetings, you will be directed to use an alternate location, most likely our department’s established secondary location at First Baptist Church of Cookeville at 18 Walnut Avenue, Cookeville, TN 38501. If this type of emergency occurs, I will contact you through your Tech student email account with specific instructions.

## Technology Disclaimer

In the event of a campus emergency that limits access to computer labs, students are responsible for obtaining technology to complete assignments. This includes, but is not limited to, purchasing software subscription packages.

## Student Academic Misconduct Policy

Maintaining high standards of academic integrity in every class at Tennessee Tech is critical to the reputation of Tennessee Tech, its students, alumni, and the employers of Tennessee Tech graduates. The Student Academic Misconduct Policy describes the definitions of academic misconduct and policies and procedures for addressing Academic Misconduct at Tennessee Tech. For details, view the Tennessee Tech’s Policy 217 – Student Academic Misconduct at Policy Central (https://tntech.policytech.com/?auto=false).

## Disability Accommodation

Students with a disability requiring accommodations should contact the Office of Disability Services (ODS). An Accommodation Request (AR) should be completed as soon as possible, preferably by the end of the first week of the course. The ODS is located in the Roaden University Center, Room 112; phone 372-6119. For details, view the Tennessee Tech’s Policy 340 – Services for Students with Disabilities at Policy Central (https://tntech.policytech.com/?auto=false).

**COMMUNICATION (COM)**
**Journalism/News Editorial Option**
**(Leading to the Bachelor of Science Degree with a concentration in Journalism)**

**Proposed**

| **Freshman Year** | | sem. hrs. | **Sophomore Year** | | sem. hrs. |
|---|---|---|---|---|---|
| ENGL 1010 | Writing I | 3 | JOUR 2220 | News Reporting and Copy Editing | 3 |
| ENGL 1020 | Writing II | 3 | JOUR 3350 | Newspaper Production and Design | 3 |
| SPCH 2410 | Introduction to Speech Communication | 3 | JOUR 3400 or 3500 or 3370 | Intro to Broadcasting or Multimedia Storytelling or Photojournalism | 3 |
| JOUR 2200 | Mass Communication in a Changing Society | 3 | JOUR 3460 | Intro to Public Relations | 3 |
| Laboratory Science | | 8 | JOUR 3740 | Advertising Copy and Layout | 3 |
| SOC 1010 | Introduction to Sociology | 3 | SPCH 2430 | Interpersonal Communication | 3 |
| SOC 1100 or GEOG 1120 | | 3 | ENGL 2330 | World Literature | 3 |
| MATH | | 3 | HIST 2010 | American History I | 3 |
| Elective | | 1 | HIST 2020 | American History II | 3 |
| UNIV 1020[1] | First-Year Connections | 1 | POLS 1000 | American Government | 3 |
| Total | | 31 | Total | | 30 |
| **Junior Year** | | sem. hrs. | **Senior Year** | | sem. hrs. |
| COMM 3100 | Communication Theory | 3 | JOUR 4360 | Magazine Production and Design | 3 |
| COMM 3200 | Research Methods in Communication | 3 | JOUR 4820 | Advanced Reporting | 3 |
| JOUR 3750 | History of Journalism | 3 | JOUR 4830 or 4710 | Feature Writing or Literary Journalism | 3 |
| JOUR 3770 | Law of Journalism | 3 | JOUR 4930 | Advanced Copy Editing | 3 |
| SPCH 3620 | Intercultural Communication | 3 | PSY 2010 | General Psychology | 3 |
| Emphasis Area Courses[2] | | 6 | Emphasis Area Courses[2] | | 6 |
| Humanities/Fine Arts Elective | | 3 | Humanities/Fine Arts Elective | | 3 |
| | | | SOC Electives | | 3 |
| | | | Elective | | 3 |
| Total | | 30 | Total | | 30 |

[1] This course not included in 120-hour curriculum.

[2] Emphasis Area. Choose 12 hours of courses from one of the options (A-F) below. All 12 hours must be from the same emphasis area.

A. Agricultural Communications: AGBE 2010, AGBE 2100, AGED 4150, JOUR 4853, JOUR 4856, JOUR 4859.
B. Environmental Communications: AGBE 2010, AGBE 4120, ESS 3710, GEOL 1045, GEOL 2000, JOUR 4853, JOUR 4856, JOUR 4859, BIOL 3120.
C. Digital Electronic Multi-Media Communications: SPCH 3000, SPCH 3120, SPCH 4440, JOUR 4500, JOUR4853. *(eff. Fall 2017)*
D. Sports Multi-Media Communications: EXPW 2170, EXPW 3180, EXPW 3300, EXPW 4171, EXPW 4540, EXPW 4550, JOUR 4853, JOUR 4856, JOUR 4859.
E. Writing—Fiction and Non-Fiction: ENGL 3400, ENGL 4430, ENGL 4440, ENGL 4450, ENGL 4531, JOUR 4843, JOUR 4846, JOUR 4849.
F. Literature: ENGL 3500, ENGL 4111, ENGL (THEA) 4121, ENGL 4130, ENGL 4140, ENGL 4210, ENGL 4221, ENGL 4231, ENGL 4240, ENGL 4250, ENGL 4310, ENGL 4320, ENGL 4330, ENGL 4340, ENGL 4610, ENGL 4620, ENGL 4630, ENGL 4712, ENGL 4713, ENGL 4720, ENGL 4731, ENGL 4751, ENGL 4810, ENGL 4820, ENGL 4830, ENGL 4840, ENGL 4911, ENGL 4921, ENGL 4931.

Proposed

**COMMUNICATION (COM)**
**Journalism/Public Relations Option**
**(Leading to the Bachelor of Science Degree with a concentration in Journalism)**

| **Freshman Year** | | sem. hrs. | **Sophomore Year** | | sem. hrs. |
|---|---|---|---|---|---|
| ENGL 1010 | Writing I | 3 | JOUR 2220 | News Reporting and Copy Editing | 3 |
| ENGL 1020 | Writing II | 3 | JOUR 3350 | Newspaper Production and Design | 3 |
| SPCH 2410 | Introduction to Speech Communication | 3 | JOUR 3400 or 3500 or 3370 | Intro to Broadcasting or Multimedia Storytelling or Photojournalism | 3 |
| JOUR 2200 | Mass Communication in a Changing Society | 3 | JOUR 3460 | Introduction to Public Relations | 3 |
| Laboratory Science | | 8 | JOUR 3740 | Advertising Copy and Layout | 3 |
| SOC 1010 | Introduction to Sociology | 3 | SPCH 2430 | Interpersonal Communication | 3 |
| SOC 1100 or GEOG 1120 | | 3 | ENGL 2330 | World Literature | 3 |
| MATH | | 3 | HIST 2010 | American History I | 3 |
| Elective | | 1 | HIST 2020 | American History II | 3 |
| UNIV 1020[1] | First-Year Connections | 1 | PSY 2010 | General Psychology | 3 |
| Total | | 31 | Total | | 30 |
| **Junior Year** | | sem. hrs. | **Senior Year** | | sem. hrs. |
| COMM 3100 | Communication Theory | 3 | JOUR 4360 | Magazine Production and Design | 3 |
| COMM 3200 | Research Methods in Communication | 3 | JOUR 4460 | Public Relations/Cases and Practices | 3 |
| JOUR 3470 | Public Relations Writing | 3 | JOUR 4820 | Advanced Reporting | 3 |
| JOUR 3750 | History of Journalism | 3 | JOUR 4830 Or 4710 | Feature Writing Or Literary Journalism | 3 |
| JOUR 3770 | Law of Journalism | 3 | JOUR 4930 | Advanced Copy Editing | 3 |
| SPCH 3620 | Intercultural Communication | 3 | PSY 3410 | Group Dynamics | 3 |
| BMGT 3510 | Management and Organization Behavior | 3 | Elective | | 3 |
| Emphasis Area Courses[2] | | 6 | Emphasis Area Courses[2] | | 6 |
| Humanities/Fine Arts Elective | | 3 | Humanities/Fine Arts Elective | | 3 |
| Total | | 30 | Total | | 30 |

[1] This course not included in 120-hour curriculum.

[2] Emphasis Area. Choose 12 hours of courses from one of the options (A-F) below. All 12 hours must be from the same emphasis area.

A. Agricultural Communications: AGBE 2010, AGBE 2100, AGED 4150, JOUR 4853, JOUR 4856, JOUR 4859.
B. Environmental Communications: AGBE 2010, AGBE 4120, ESS 3710, GEOL 1045, GEOL 2000, JOUR 4853, JOUR 4856, JOUR 4859, BIOL 3120.
C. Digital Electronic Multi-Media Communications: SPCH 3000, SPCH 3120, SPCH 4440, JOUR 4500, JOUR 4853. *(eff. Fall 2017)*
D. Sports Multi-Media Communications: EXPW 2170, EXPW 3180, EXPW 3300, EXPW 4171, EXPW 4540, EXPW 4550, JOUR 4853, JOUR 4856, JOUR 4859.
E. Writing—Fiction and Non-Fiction: ENGL 3400, ENGL 4430, ENGL 4440, ENGL 4450, ENGL 4531, JOUR 4843, JOUR 4846, JOUR 4849.
F. Literature: ENGL 3500, ENGL 4111, ENGL (THEA) 4121, ENGL 4130, ENGL 4140, ENGL 4210, ENGL 4221, ENGL 4231, ENGL 4240, ENGL 4250, ENGL 4310, ENGL 4320, ENGL 4330, ENGL 4340, ENGL 4610, ENGL 4620, ENGL 4630, ENGL 4712, ENGL 4713, ENGL 4720, ENGL 4731, ENGL 4751, ENGL 4810, ENGL 4820, ENGL 4830, ENGL 4840, ENGL 4911, ENGL 4921, ENGL 4931.

**MEMORANDUM (Political Science 3 of 3)**

**To: University Curriculum Committee**

**Via: CAS Curriculum Committee**

**From: Dr. Lori Maxwell, Departmental Chairperson**

**Re: Political Science Course Prerequisite Changes**

**Date: August 22, 2017**

**Political Science Upper Division Course Prerequisite change for the following courses:**

1. POLS 3000 Data Analysis
2. POLS 3110 Introduction to Legal Research and Analysis
3. POLS 3120 Legal Research and Writing
4. POLS 3200 American Political Thought
5. POLS 3300 Introduction to Latin American Policy
6. POLS 3310 Politics of Developing Nations
7. POLS 3320 US Policy Toward Latin America
8. POLS 3330 State and Local Government
9. POLS 3340 Gender and Politics
10. POLS 3610 International Politics
11. POLS 3700 The Legislative Process
12. POLS 3710 The American Executive
13. POLS 3810 Judicial Process
14. POLS 4100 International Law
15. POLS 4210 American Political Parties
16. POLS 4230 Scandal and Corruption in US Politics
17. POLS 4250 Political Communications
18. POLS 4310 Constitutional Law I
19. POLS 4320 Constitutional Law II
20. POLS 4400 Political Satire
21. POLS 4410 Political Theory: Ancient
22. POLS 4420 Political Theory: Early Modern
23. POLS 4430 Power and Privilege on the Screen
24. POLS 4510 Comparative Government: Europe
25. POLS 4920 Seminar in Comparative Government
26. POLS 4960 Seminar in World Politics

**A. From:**
Prerequisite: POLS 1030, or consent of instructor.

**To:**
Prerequisite: POLS 1030 and POLS 1100 or consent of instructor.

**Cost**: none

**Justification**:

1. The 2015 Academic Auditors recommended strengthening the POLS methods requirements.
2. POLS 3000 will now be a required course in the junior year. (See MEMORANDUM Political Science 2 of 3).
3. POLS 1100 is already a required course, but as it both prepares students for POLS 3000 and the methods scholarship assigned in most major courses, it is a necessary prerequisite for upper division coursework and the newly-required upper division methods course.
4. Some courses were deliberately excluded from this prerequisite requirement as they encourage participation by non-majors. These include the competition courses of POLS 3130 Moot Court, POLS 3100 and POLS 3101 Model UN as well as some of the political science internships such as the Tennessee General Assembly Legislative Internship and the Washington Center Program, respectively.

**Implementation Date**: Fall 2018

**MEMORANDUM (Political Science 1 of 3)**

**To: University Curriculum Committee**

**Via: CAS Curriculum Committee**

**From: Dr. Lori Maxwell, Departmental Chairperson**

**Re: Political Science Course Deletion and Requirement Addition**

**Date: August 29, 2017**

**I. Curriculum Change: POLS**

1. **From:**
General Electives 12 hours (listed in the junior year)

**To:**
General Electives 9 hours (listed in the junior year); and,

**II. Curriculum Change: POLS**

2. **From:**
General Electives 3 hours (listed in the junior year);

**To:**
**POLS 3000- Data Analysis** (Course already exists but we are adding it as a requirement in the junior year): **Lecture 3. Credit 3.** Prerequisite: POLS 1030 and POLS 1100, or consent of instructor (See MEMORANDUM Political Science 3 of 3)

**(To be listed in the Junior Year)**

**Cost**: covered by faculty member to be hired in 2017-2018 search.

**Justification**:

1. The 2015 Academic Auditors recommended strengthening political science methods.
2. The faculty member hired in the 2017-2018 search will be required to teach POLS 3000.
3. Most Political Science departments in Tennessee either require an upper division methods course or strongly encourage graduate school-track students to take methods beyond a general education math requirement.

**Effective Date**: Fall 2018

**MEMORANDUM (Political Science 2 of 3)**

**To: University Curriculum Committee**

**Via: CAS Curriculum Committee**

**From: Dr. Lori Maxwell, Departmental Chairperson**

**Re: Political Science/Legal Studies Concentration Course Deletion and Requirement Addition**

**Date: August 29, 2017**

**I. Curriculum Change: POLS/LS**

1. **From:**
General Electives 15 hours (listed in the junior year)

**To:**
General Electives 12 hours (listed in the junior year); and,

**II. Curriculum Change: POLS/LS**

2. **From:**
General Electives 3 hours (listed in the junior year);

**To:**
**POLS 3000- Data Analysis** (Course already exists but we are adding it as a requirement in the junior year): **Lecture 3. Credit 3**. Prerequisite: POLS 1030 and POLS 1100, or consent of instructor (See MEMORANDUM Political Science 3 of 3)

**(To be listed in the Junior Year)**

**Cost**: covered by faculty member to be hired in 2017-2018 search.

**Justification**:

1. The 2015 Academic Auditors recommended strengthening political science methods.
2. The faculty member hired in the 2017-2018 search will be required to teach POLS 3000.
3. Most Political Science departments in Tennessee either require an upper division methods course or strongly encourage graduate school-track students to take methods beyond a general education math requirement.

**Effective Date**: Fall 2018

**MEMORANDUM**

**TO:** University Curriculum Committee

**FROM:** Dr. Lori Maxwell, Department Chair

**VIA:** College of Arts and Sciences Curriculum Committee

**DATE:** August 22, 2017

**RE:** Course Deletion (due to duplication)

**ADDITIONAL COST**: None

**COURSE DELETION**: SOC 1100: Introduction to Anthropology lec. 3; cred 3

**EFFECTIVE DATE**: Fall 2017

**JUSTIFICATION**: Sociology 1100 is an exact duplication of ANTH 1100 – an approved TTU Social Behavioral Science General Education core course. SOC 1100 is not an approved General Education course. In previous years but no longer, the Sociology program offered an Anthropology minor and found it beneficial to cross-list SOC 1100 and ANTH 1100. They remain cross-listed but this is in error as a General Education course cannot be cross-listed with a non-General Education course. Furthermore, an Anthropology and a Sociology course cannot be cross-listed as the same General Education course because General Education requires outcome goals to be addressed in the syllabus and a single syllabus cannot cover both Sociology and Anthropology. No department on campus requires SOC 1100 as a stand-alone course.

POLITICAL SCIENCE (POLS)
Curriculum Plan
(Leading to the B.S. degree)

**Freshman Year**

| | | |
|---|---|---|
| UNIV 1020; or General Elective | | 1 |
| POLS 1030 American Government | | 3 |
| POLS 1100 Intro. To Political Science | | 3 |
| ENGL 1010 Writing I | | 3 |
| ENGL 1020 Writing II | | 3 |
| Social/Behavioral Science Elective | | 3 |
| Foreign Language | | 6 |
| MATH 1010 or any Math Gen Ed | | 3 |
| Natural Science | | 4 |
| **Total** | | **29** |

**Sophomore Year**

| | | |
|---|---|---|
| POLS Electives | | 6 |
| ENGL 2130, 2230, or 2330 | | 3 |
| Humanities/Fine Arts Elective | | 6 |
| SPCH 2410 or PC 2500 | | 3 |
| HIST 2010 American History I | | 3 |
| HIST 2020 American History II | | 3 |
| Natural Science | | 4 |
| **Total** | | **28** |

**Junior Year**

| | | |
|---|---|---|
| POLS Electives | | 12 |
| DS 2810 or CSC 1100 | 3 | |
| HIST (Upper Division) | | 3 |
| ENGL (Upper Division) | | 3 |
| General Electives | | ~~12~~ Change to 9 hrs |
| Add: POLS 3000 Data Analysis | | 3 |
| **Total** | | **33** |

**Senior Year**

| | |
|---|---|
| POLS Electives | 6 |
| HIST (Upper Division) | 3 |
| Social Science, Criminal Justice, or PHIL | 6 |

| | | |
|---|---|---|
| General Electives | | 15 |
| | **Total** | **30** |

POLITICAL SCIENCE (POLS/LS)
Curriculum Plan
(Leading to the B.S. degree)

***Concentration in Legal Studies***

**Freshman Year**

| | | |
|---|---|---|
| UNIV 1020; or General Elective | | 1 |
| POLS 1030 American Government | | 3 |
| POLS 1100 Intro. To Political Science | | 3 |
| ENGL 1010 Writing I | | 3 |
| ENGL 1020 Writing II | | 3 |
| Social/Behavioral Science Elective | | 3 |
| Foreign Language | | 3 |
| MATH 1010 or any Math Gen Ed | | 3 |
| General Elective | | 3 |
| Natural Science | | 4 |
| | **Total** | **29** |

**Sophomore Year**

| | | |
|---|---|---|
| DS 2810 or CSC 1100 | 3 | |
| ENGL 2130, 2230, or 2330 | | 3 |
| General Elective | | 6 |
| Humanities/Fine Arts Elective | | 6 |
| SPCH 2410 or PC 2500 | | 3 |
| HIST 2010 American History I | | 3 |
| HIST 2020 American History II | | 3 |
| Natural Science | | 4 |
| | **Total** | **31** |

**Junior Year**

| | | |
|---|---|---|
| POLS/Law/CJ Electives | | 6 |
| POLS Electives (Upper Division) | | 6 |
| ENGL (Upper Division) | | 3 |
| General Electives | | ~~15~~ Change to 12 hrs |
| Add: POLS 3000 Data Analysis | | 3 |
| | **Total** | **30** |

**Senior Year**

| | | |
|---|---|---|
| POLS Electives | | 6 |
| POLS Electives (Upper Division) | | 6 |

| | | |
|---|---|---|
| HIST (Upper Division) | | 6 |
| General Electives | | 12 |
| | **Total** | **30** |

**MEMORANDUM**

TO: University Curriculum Committee

VIA: Education Leadership Committee

FROM: Barry Stein, Chairperson, Department of Counseling & Psychology

DATE: April 24, 2017

SUBJECT: Course and curriculum changes

The Department of Counseling & Psychology proposes the following course addition to the undergraduate psychology curriculum.

## I. COURSE CHANGES

1. **ADDITIONS**

PSY 3030 – Careers in Psychology

Effective Spring, 2018.

**Catalog Description** Lec. 3 Credits 3

The course explores the various career paths that can be taken with a degree in psychology, which may include clinical/counseling, cognitive neuroscience, industrial/organizational, healthcare informatics, educational research, and other career applications.

**Justification:**

Our previous external review of the undergraduate psychology program recommended that we formally add a course like this to improve student understanding of career paths in psychology and improve student performance in our intensive four semester research sequence. We offered this course as a special topics course for several semesters to evaluate the impact on students and gauge student interest in the topic. The course has been very popular and students think it is very helpful in helping them understand and choose a career path.

Effective Spring, 2018

2. **DELETIONS**

None

3. **MODIFICATIONS**

None

**II. Curriculum Changes:** NONE
**V. Financial Impact:** NONE

**Example Syllabi**

# PSY 3030 – Careers in Psychology

## Course Description

This course is a special topics course focused on identifying the path to creating a career for psychology majors. It blends personal and theoretical processes to arrive at applications to the process of career decision-making.

## Instructor & Course Information


**Instructor: Chad Luke**

- Office: TJ Farr 303E
- Phone: 931-372-33217
- E-mail: cluke@tntech.edu


## Prerequisites

N/A

## Texts and References

**Required**

You majored in what? Mapping your path from chaos to career. Katharine Brooks (2009).

## Student Responsibilities

The following dispositions are taken from the MHC Handbook and summarize the responsibilities accepted by the student participating in this course. Graduate Program Information

1. **Scholarship** (mastery in coursework and competency in application)
2. **Responsibility** (acceptance of ownership of personal, academic, and professional development and behavior)
3. **Respect for Diversity** (recognition of the needs and values of individuals)
4. **Effective Communication** (ability to communicate clearly verbally and in writing, and to accept new ideas and constructive feedback)
5. **Reflection** (ability to asses one's own decision making process and recognize consequences of behavior)
6. **Professional Behavior** (recognition of ethical, legal, and professional standards of conduct)
7. **Critical Thinking** (capability for critical thinking and real world problem-solving)

## Major Teaching Methods

Instruction will consist of lecture, demonstration, role-play, group participation, small group work, reflection and writing assignments, written exams, and supervised feedback.

## Special Instructional Platform/Materials:

A. iLearn
B. laptop/computer

## Grading and Evaluation Procedures

The following grading scale will be used to evaluate candidates' knowledge of the course.

**Grading Scale**

A 93 -100
B 85 – 92
C 77 – 84
D 69 – 76
F <68

**Grade Items**

| | |
|---|---|
| Attendance and Participation | 20% |
| iLearn Posts/Activities | 40% |
| Career Portfolio | 40% |

## University Plagiarism Policy

### *Tennessee Tech University Student Handbook – Plagiarism (Academic Regulations)*

When you use (for example, quote or even summarize or paraphrase) someone else's media, words, data, ideas, or other works, you must cite your source. You should be especially careful to avoid plagiarizing Internet sources (for example, e-mail, chat rooms, Web sites, or discussion groups). It does not matter whether you borrow material from print sources, from the Internet, from on-line data bases, or from interviews. Failure to cite your source is plagiarism. Students who plagiarize may receive an "F" or a "0" for the assignment, or an "F" for the course. Studenthandbook

## Attendance Policy

Attendance in class is expected. Excessive absences will adversely affect the final grade for the course. The instructor will define the policy the first day of class. Candidates are responsible for all material covered when absent.

## Class Participation

Participation in class is essential to the value of the learning experience within this course. A student's grade may be affected negatively by low participation.

## Assignments & Related Policies

- Assignments are due at the beginning of class on the due date. Late work automatically receives a 10% grade reduction. I reserve the right to not accept a late assignment.
- Please be vigilant in following the guidelines for assignments and activities. Grades will be affected by poorly formatted, structured or hard-to-read assignments.
- *See Appendix for Assignment descriptions*

## Assignment Format

All assignments should be typed, double-spaced, 12-point Times New Roman font, and adhere to APA guidelines (APA Publication Manual, 6th ed.). Assignments not meeting these minimum standards will be returned and counted as late.

## Additional Evaluation Areas

Students will take a variety of assessments/inventories at the beginning or the course, and again at the end of the course, in order to track shifts in their thinking and perception based on the course experience.

## Class Plan by Weeks or Days

Please see Course Schedule at the end of the Syllabus.

## Disability Accommodation

Students with a disability requiring accommodations should contact the Office of Disability Services (ODS). An Accommodation Request (AR) should be completed as soon as possible, preferably by the end of the first week of the course. The ODS is located in the Roaden University Center, Room 112; phone 372-6119. (Disability Accommodation Policy and Procedures - Tennessee Tech University Faculty Handbook and Student Handbook DiabilityAccomodations**)**

# I. Course Schedule

| Date | Topic | Reading | Assignments (Due Dates) |
|---|---|---|---|
| Week 1<br>1/17 | | | iLearn Post #1<br>Introductions |
| 1/19 | Introduction, Overview, Syllabus | On iLearn | |
| Week 2 1/24 | | | iLearn Post #2<br>Arguments |
| 1/26 | A Butterfly Flaps Its Wings and You Find A Job | 1 | |
| Week 3<br>1/31 | | | iLearn Post #3<br>TTU Career Services – Exp |
| 2/02 | Connecting the Dots | 2 | |
| Week 4<br>2/07 | | | iLearn Post #4<br>TTU Career Services - Results |
| 2/09 | Mental Wanderings | 3 | |
| Week 5<br>2/14 | | | iLearn Post #5<br>Community |
| 2/16 | Wandering Beyond Majors and Minors | 4 | |
| Week 6<br>2/21 | | | iLearn Post #6<br>Today Resume |
| 2/23 | Why Settle for One Career when You can have Ten | 5 | |
| Week 7<br>2/28 | | | iLearn Post #7<br>Ideal Resume |
| 3/02 | Even Wanderers Make Plans | 6 | |
| Week 8<br>3/07 – 3/09 | No Class - Spring BREAK | | |
| Week 9<br>3/14 | | | iLearn Post #8<br>Informational Interview |
| 3/16 | Paging Dr. Frankenstein | 7 | |
| Week 10<br>3/21 | | | iLearn Post #8<br>Checking In |
| 3/23 | My Job Krackel Bar | 8 | |
| Week 11<br>3/28 | ADVISEMENT WEEK | | iLearn Post #9<br>Movie |
| 3/30 | Channeling Jane Austin | 9 | |
| Week 12<br>4/04 | | | iLearn Post #10<br>Portfolio Progress Report |
| 4/06 | Wandering into the Workplace | 10 | |
| Week 13<br>4/11 | | | iLearn Post #11<br>Wrapping Up Katherine |
| 4/13 | Wandering after Graduation | 11 | |
| Week 14<br>4/18 | | | iLearn Post #12<br>Working/Not Working |
| 4/20 | | | |
| Week 15 | Wrap Up | | |

| | | |
|---|---|---|
| 4/25 | | |
| 4/27 | | |
| Week 16<br>5/01 | **Finals Week** | |

# Appendix A

**Assignments**

## *Attendance & Participation:*

**20% of grade**

Participation Rubric: Active participation is essential and will be evaluated in the following way:

- *Excellent* – Attends Every Class (0-1 classes missed). Proactive participation: leading, originating, informing, challenging contributions that reflect in-depth study, thought, and analysis of the topic under consideration as well as a demonstrated ability to listen to and build upon the ideas of others. All assignments are submitted on time (Earns 93-100%, equivalent to an "A")
- *Satisfactory* – Attends Majority of Classes (1-2 classes missed). Reactive participation: supportive, follow-up contributions that are relevant and of value, but rely on the leadership and study of others, or reflect opinion rather than study, thought, and contemplation. All or most assignments are submitted on time. (Earns 85-92%, equivalent to a "B")
- *Minimally Acceptable* – Attends Classes Erratically (3+classes missed). Passive participation: present, awake, alert, attentive, but not actively involved. (Earns 77-84%, equivalent to a "C")
- *Unsatisfactory* – Attends Classes Erratically (3+classes missed). Uninvolved: absent, present but not attentive, sleeping, irrelevant contributions that inhibit the progress of the discussion. (Earns 0-76%, unacceptable)

*It is recognized that "life happens" so reasonable absences will be taken into consideration.

## *iLearn Posts*

**40% of Grade**
**Discussion Board Posts and Activities**

1. Introduction

2. Why this Course?

3. Career Exploration: Go TTU career services & complete career assessment & have one of their career counselors go over the report with you. Use the perspective that you are undecided about your future career & this is a way of finding some information. Follow through with any recommendations, as appropriate. Write a summary of your experience and post on the Blackboard forum entitled "Career Exploration". Respond to at least two posts from others about your and their experience.

4. Local Resources: Now locate and visit the career resource center for your city/town, county, region or state. Visit over fall break or one in town. Describe what you saw, heard and felt. Would you refer a client or loved one there?
5. Today Resume: Using the categories/prompts, as applicable, write your resume as if you are actually searching for a counseling-related position. Use Times New Roman font 12. As professionals, you have much to offer & these contributions are significant aspects of your career & personal life. Employers for the types of positions to which you are aspiring are seeking versatile, flexible, & talented people in & out of the specific profession who demonstrate leadership, civic or community involvement, & dedication. Show this in the most succinct & professional manner on your resume/vita.

   Attach your resume to the discussion board, and then post about your observations.

6. Ideal Resume: Now write the resume you would like to have in 5-10 years, including education, accomplishments, credentials, etc. You may overwrite this on the today resume if you like. Attach your resume to the discussion board, and then post about your observations.

7. Informational Interview: This exercise represents one of the most powerful tools in career counseling. Interview a counselor who has been in his/her profession for at least 3 years. Discuss the ways in which he/she had made decisions about pursuing that particular career.
   a. How & from whom did he/she gather information about this career?
   b. What is his/her level of satisfaction in this career?
   c. What are the concerns he/she has about the career & some of the struggles?
   d. How does this career fit his/her family & personal life?
   e. Are there some impediments from the job to home life or home life to job?
   f. What recommendations would he/she give to someone thinking about this career?
   g. What does the future look like for him/her in this career?
   h. What are changes in the field & the opportunities for advancements?
   i. Write a summary of your meeting and post on iLearn. Discuss the impressions you left the meeting with. Respond to at least 2 other posts. Describe and discuss.

8. Movie…Career: Select a movie or television show that has some career related theme or work scenes that pose dilemmas for the character(s)- this is open for interpretation, so be creative. Offer a very brief synopsis. What model would be most applicable & why? How might you use this movie/show to aid your own process? Write a summary of both the movie/show and your response to the above items. Post to iLearn under "Movie…Career". Respond to at least 2 other posts.

### *Career Portfolio*

**40% of final grade**

# Career Portfolio Project

1. **Go to "What Can I Do With This Major" from the Tech website**
   a. Click on your major (or similar major)
   b. Identify one category (in bold) under AREAS and choose one subcategory within it which you want to learn more about
   c. Complete this for at least 2 areas or subcategories

2. **Research your chosen subcategory using the career-related websites listed below and answer the following questions (Complete this steps for at least 2 jobs per major)–**
   Websites:
   a. Career One Stop
   b. ONET Online

   Questions:
   a. What is the potential salary range for the career field?
   b. What (if any) are the additional requirements for this career field (i.e. graduate school, professional school, licensure, etc.)?
   c. What would be the day to day activities associated with this career field?
   d. How might this career field reflect your **values**?
   e. How does this career field fit with the **skills** you already have?

3. **Utilize a job search website to identify a posted job position related to your chosen category/career field. Identify the site and the position**

* Also consider using the website of a professional organization related to your career to search jobs

4. Using this information, write a ½-page typed rationale for why you are thinking of each of these **careers and how a major in psychology is a good match (that means ½ page for each).**

5. **Select 1 career from 1 major and, using the CC&C Resume Guide, create cover letter as if applying to the job position selected**. See quintcareers for cover letter examples.

6. **30-Second Elevator Speech in response to "Tell me about yourself"**
   - Based on the information obtained above (1, 2and 3), write a summary of your skills, abilities, interests, etc. as if you were introducing yourself to a prospective employer, as shown near the bottom of the page at Quintessential Careers

**Final project must include:**

- ½ page typed rationale for each of the 2 majors you selected
- Typed version of your 30-second elevator speech
- Presentation of summary of the above items (1, 2, and 3), culminating in delivery of 30-second elevator speech (2-3 minutes)
- Typed cover letter
- All materials from assignments indexed and compiled

**MEMORANDUM**

TO: University Curriculum Committee

VIA: Education Leadership Committee

FROM: Barry Stein, Chair, Department of Counseling & Psychology

DATE: April 12, 2017

SUBJECT: Psychology curriculum change

The Department of Counseling & Psychology proposes the following curriculum change to the undergraduate psychology curriculum.

## I. CURRICULUM CHANGES

1. **Change in required courses**

   **From:**

   PSY 4150 Psychology of Personality

   **To:**

   PSY 4150 Psychology of Personality or PSY 4160 Abnormal Psychology

   Effective Fall, 2018.

**Justification:**

Provides greater flexibility in accommodating program to student interests and more effective use of faculty expertise.

**V. Financial Impact: None**

name

# Degree: Bachelor of Science Psychology (120 Hours, 60+ hours must be from TTU)

## Courses Required for Graduation

| Psychology (43 Hours) | CR | GR | QP |
|---|---|---|---|
| 2010 General Psychology | 3 | | |
| ** 3010 Statistics and Experimental Design | 3 | | |
| ** 3110 Experimental Psychology | 4 | | |
| 3020 Information Literacy | 3 | | |
| 2130 Life Span Developmental Psychology ***or*** 3300 Introduction to Social Psychology | 3 | | |
| 4050 Learning and Cognition | 3 | | |
| 4130 Brain and Behavior | 3 | | |
| 4150 Personality ***or*** 4160 Abnormal Psychology | 3 | | |
| **4930 Senior Thesis | 3 | | |
| **4931 Senior Thesis | 3 | | |
| Psy Elective (Upper Division) | 3 | | |
| Psy Elective (Upper Division) | 3 | | |
| Psy Elective (Upper Division) | 3 | | |
| Psy Elective (Upper Division) | 3 | | |

**These courses cannot be taken during the same semester - allow 4 semesters to complete Psy 3010, 3110, 4930, and 4931

| Communication (9 hours) | | | |
|---|---|---|---|
| 1010 Writing I | 3 | | |
| 1020 Writing II | 3 | | |
| SPCH 2410 **or** PC 2500 | 3 | | |

| Biology (8 Hours) | | | |
|---|---|---|---|
| 1010 General Biology I | 4 | | |
| 1020 General Biology II | 4 | | |

| Mathematics (3 Hours) | | | |
|---|---|---|---|
| 1530 Math Elementary Probability & Statistics ***or*** | 3 | | |
| 1130 Math College Algebra & Analytic Geometry | | | |

| History (6 Hours) | | | |
|---|---|---|---|
| 2010 American History I | 3 | | |
| 2020 American History II | 3 | | |

| | |
|---|---|
| **English Qualifying Exam** | |
| **Major Area Exam** | |
| **College Base Exam** | |

Advisement Periods are listed on the student web site each semester. It is the responsibility of the student to see their academic advisor during this period.

| Social Science (3 Hours) | | | |
|---|---|---|---|
| | 3 | | |
| AGBE 2010 World Food and Society | | | |
| ANTH 1100 Intro to Anthropology | | | |
| ECON 2010 Prin. of Microeconomics | | | |
| ECON 2020 Prin. of Macroeconomics | | | |
| GEOG 1120 Human Geography | | | |
| GEOG 1130 Geo. Of Natural Hazards | | | |
| HIST 2900 Environmental History | | | |
| POLS 1000 American Government | | | |
| SOC 1010 Introduction to Sociology | | | |

| ***Humanities and/or Fine Arts (9 hours) | | | |
|---|---|---|---|
| ENGL Lit course *** | 3 | | |
| | 3 | | |
| | 3 | | |
| ART 1030 Art Appreciation | | | |
| **ENGL 2130 American Lit *** ** | | | |
| **ENGL 2230 British Lit *** ** | | | |
| **ENGL 2330 World Lit *** ** | | | |
| FREN 2510 French Culture and Civ | | | |
| GERM 2520 German Culture and Civ | | | |
| HIST 1010 Survey of European Civ | | | |
| HIST 1020 Survey of European Civ II | | | |
| HIST 1110 World Civ I | | | |
| HIST 1120 World Civ II | | | |
| MUS 1030 Music Appreciation | | | |
| MUAR 2500 Arts and Ideas | | | |
| PHIL 1030 Intro to Philosophy | | | |
| SPAN 2510 Spanish Culture and Civ | | | |
| SPAN 2550 Latin Am. Culture and Civ | | | |
| THEA 1030 Intro to Theater | | | |

*** Must include 3 hours of Literature

| Electives (39 Hours) | | | |
|---|---|---|---|
| *UNIV 1020 First Year Conn. | 1 | | |
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*Incoming freshmen are required to take UNIV 1020

**PSYCHOLOGY (PSY)**

**(Leading to the Bachelor of Science Degree)**

| **Freshman Year** | | sem. hrs. | **Sophomore Year** | | sem. hrs. |
|---|---|---|---|---|---|
| ENGL 1010 | Writing I | 3 | ENGL 2130, 2230, or 2330 | | 3 |
| ENGL 1020 | Writing II | 3 | Social/Behavioral Science Elective | | 3 |
| PSY 2010 | General Psychology | 3 | Humanities/Fine Arts Electives | | 6 |
| BIOL 1010 | Introduction to Biology I | 4 | PSY 2130 or 3300 | | 3 |
| BIOL 1020 | Introduction to Biology II | 4 | PSY Elective | | 3 |
| MATH 1530 or 1130 | | 3 | Electives[1] | | 12-13 |
| SPCH 2410 or PC 2500 | | 3 | | | |
| HIST 2010 | American History I | 3 | | | |
| HIST 2020 | American History II | 3 | | | |
| UNIV 1020 | First-Year Connections | 1 | | | |
| Total | | 30 | Total | | 30-31 |
| **Junior Year** | | sem. hrs. | **Senior Year** | | sem. hrs. |
| PSY 3010 | Statistics and Experimental Design | 3 | PSY 4930 | Senior Thesis | 3 |
| PSY 3020 | Information Literacy | 3 | PSY 4931 | Senior Thesis | 3 |
| PSY 3110 | Experimental Psychology | 4 | PSY Electives | | 9 |
| PSY 4050 | Learning and Cognition | 3 | Electives | | 14 |
| PSY 4130 | Brain and Behavior | 3 | | | |
| PSY 4150 or 4160 | | 3 | | | |
| Electives | | 12 | | | |
| Total | | 31 | Total | | 29 |

[1]Thirteen elective hours if UNIV 1020 was not taken

name

# Degree: Bachelor of Science Psychology (120 Hours, 60+ hours must be from TTU)

## Courses Required for Graduation

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| Psy Elective (Upper Division) | 3 | | |
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**These courses cannot be taken during the same semester - allow 4 semesters to complete Psy 3010, 3110, 4930, and 4931

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| 1530 Math Elementary Probability & Statistics ***or*** | 3 | | |
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| | 3 | | |
| | 3 | | |
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| SPAN 2510 Spanish Culture and Civ | | | |
| SPAN 2550 Latin Am. Culture and Civ | | | |
| THEA 1030 Intro to Theater | | | |

*** Must include 3 hours of Literature

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| | | | |
|---|---|---|---|
| *UNIV 1020 First Year Conn. | 1 | | |
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| SPCH 2410 or PC 2500 | | 3 | | | |
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| Electives | | 12 | | | |
| Total | | 31 | Total | | 29 |

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# I. DEPARTMENT OF COUNSELING AND PSYCHOLOGY

PSY 4923/5923 Careers for Psychology Majors
*Fall 2017*
*Course Syllabus*

## II. Course Description

This course is a special topics course focused on identifying the path to creating a career for psychology majors. It blends personal and theoretical processes to arrive at applications to the process of career decision-making.

Please Note: This course was re-designed with the support of the TTU EDGE Curriculum Grant Program, to integrate creative inquiry ideas and activities into course assignments, as part of Tech's Quality Enhancement Plan (QEP) program, EDGE: Enhanced Discovery through Guided Exploration. For more information about the QEP and the undergraduate research initiative, please visithttps://www.tntech.edu/oci-qep/facultyand-administrators/edge-curriculum-grant-program.

## III. Instructor & Course Information

**Instructor: Chad Luke**
- Office: TJ Farr 303E
- Phone: 931-372-33217
- E-mail: **cluke@tntech.edu**

**Office Hours:**

**Drop in:** immediately before and after classes
**By Appt:** Monday, Tuesday, Wednesday afternoons
Wednesday and Thursday mornings, depending upon the week

**Course Information**
- Meeting Place: TJ Farr 307A
- Meeting Time: Teusday/Thursday:00pm - 5:20pm
- Hybrid Format

## II. Prerequisites

N/A

## III. Course Objectives

***At the end of this course, students will be able to:***

- Identify relevant databases and web-based information resources for career decision-making.
- Utilize field-based research activities to provide information and creative problem-solving related to career.
- Compile information obtained from informational resources for culminating project.

- Draft of 5-article literature review on developmental process of college student career development.
- Conduct conference poster-style presentation of material. and evaluate the efficacy of the project on their career development.

## IV. Texts and References

**Required**

You majored in what? Mapping your path from chaos to career. Katharine Brooks (2009).

## V. Major Teaching Methods

Instruction will consist of lecture, group participation, reflection, and writing assignments

## VI. Special Instructional Platform/Materials:

A. iLearn
B. laptop/computer

## VII. Topics to Be Covered:

Please see schedule below.

## VIII. Grading and Evaluation Procedures

The following grading scale will be used to evaluate students' knowledge of the course.

**Grading Scale**

A 93 -100
B 85 – 92
C 77 – 84
D 69 – 76
F <68

**Grade Items**

| | |
|---|---|
| Attendance and Participation | 25% |
| "Quizzes" | 25% |
| iLearn DB/Activities | 25% |
| Career Portfolio | 25% |

## IX. University Plagiarism Policy

### *A. Tennessee Tech University Student Handbook – Plagiarism (Academic Regulations)*

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- *See Appendix for Assignment descriptions*

## XIII. Additional Evaluation Areas

Students will take a variety of assessments/inventories at the beginning or the course, and again at the end of the course, in order to track shifts in their thinking and perception based on the course experience.

## XIV. Class Plan by Weeks or Days

Please see Course Schedule at the end of the Syllabus.

## XV. Disability Accommodation

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## XVI. Course Schedule

**Week 1: 8/28** - Introduction, Overview, Syllabus
**8/31 - iLearn Post #1: *"Introductions – if I am successful in this course…"***

**Week 2: 9/05** - A Butterfly Flaps Its Wings and You Find A Job
**9/07 - iLearn Post #2: *"Arguments for and against this course"***

**Week 3: 9/12** - Connecting the Dots
**9/14 - iLearn Post #3: *"TTU Career Services Virtual Experience"***

**Week 4: 9/19** - Mental Wanderings
**9/21 - iLearn Post #4**: "***TTU Career Services – Results"***

**Week 5: 9/26** - Wandering Beyond Majors and Minors
**9/28 - iLearn Post #5: *"Community Resources"***

**Week 6: 10/03** - Why Settle for One Career when You can have Ten
**10/05 - iLearn Post #6: *"Today Resume"***

**Week 7: 10/10** - Even Wanderers Make Plans
**10/12 - iLearn Post #7: *"Ideal Resume"***

**Week 8: 10/17 - No Class - FALL BREAK**
**10/19 - iLearn Post #8: *"Informational Interview"***

**Week 9: 10/24** - Paging Dr. Frankenstein
**10/26 - iLearn Post #9: *"Working/Not Working"***

**Week 10: 10/31** - My Job Krackel Bar
**11/02 - iLearn Post #10: *"Movie"***

**Week 11: 11/07** - Channeling Jane Austin
**11/09 - Portfolio**

**Week 12: 11/14** - Wandering into the Workplace
**11/16 - Portfolio**

**Week 13: 11/21 -** Wandering after Graduation
**11/23 - Portfolio**

**Week 14**: **11/28** - Dreams Deferred (Appendix)
**11/30 - Wrap Up**

## XVII. Appendix A: Assignments

### *A. Attendance & Participation:*

**25% of grade**

Participation Rubric: Active participation is essential and will be evaluated in the following way:

- *Excellent* – Attends Every Class (0-1 classes missed). Proactive participation: leading, originating, informing, challenging contributions that reflect in-depth study, thought, and analysis of the topic under consideration as well as a demonstrated ability to listen to and build upon the ideas of others. All assignments are submitted on time (Earns 93-100%, equivalent to an "A")
- *Satisfactory* – Attends Majority of Classes (1-2 classes missed). Reactive participation: supportive, follow-up contributions that are relevant and of value, but rely on the leadership and study of others, or reflect opinion rather than study, thought, and contemplation. All or most assignments are submitted on time. (Earns 85-92%, equivalent to a "B")
- *Minimally Acceptable* – Attends Classes Erratically (3+classes missed). Passive participation: present, awake, alert, attentive, but not actively involved. (Earns 77-84%, equivalent to a "C")
- *Unsatisfactory* – Attends Classes Erratically (3+classes missed). Uninvolved: absent, present but not attentive, sleeping, irrelevant contributions that inhibit the progress of the discussion. (Earns 0-76%, unacceptable)

*It is recognized that "life happens" so reasonable absences will be taken into consideration.

### *B. Quizzes*

**25% of grade**

The text for this course contains 11 chapters. For each chapter, students will create **one** quiz question. The question types include (1) multiple choice with three answer choices; (2) True/False with explanation; and (3) Fill in the blank. These questions and answers will be posted to iLearn by the date assigned (typically prior to class time on Tuesdays). Please note: students must submit original questions and answers to receive credit. This will require checking iLearn to ensure that a particular question has not been submitted. Additionally, students must submit 5 MC, 3 T/F, and 3 FiB questions. ***The creation of questions <u>is</u> the quiz***. In creating and posting MC questions, please use the following convention *exactly*:

Chapter 3 Question 1:
The "shift" in relational directionality in modern psychoanalysis refers to what:

a. transitioning from relational problems with one person to multiple people
b. a two-person psychology instead of a one-person psychology
c. too focused on psychoanalytic theory to be relevant to counselors today

**Correct Response: b. a two-person psychology instead of a one-person psychology**

### *C. iLearn Posts*

**25% of Grade**
**Discussion Board Posts and Activities**

1. Introduction

2. Why this Course?

3. Career Exploration: Go TTU career services ONLINE & complete career assessment & have one of their career counselors go over the report with you. Use the perspective that you are undecided about your future career & this is a way of finding some information. Follow through with any recommendations, as appropriate. Write a summary of your experience and post on the Blackboard forum entitled "Career Exploration". Respond to at least two posts from others about your and their experience.

4. Local Resources: Now locate and visit the career resource center for your city/town, county, region or state. Visit over fall break or one in town. Describe what you saw, heard and felt. Would you refer a client or loved one there?

5. Today Resume: Using the categories/prompts, as applicable, write your resume as if you are actually searching for a counseling-related position. Use Times New Roman font 12. As professionals, you have much to offer & these contributions are significant aspects of your career & personal life. Employers for the types of positions to which you are aspiring are seeking versatile, flexible, & talented people in & out of the specific profession who demonstrate leadership, civic or community involvement, & dedication. Show this in the most succinct & professional manner on your resume/vita.

   Attach your resume to the discussion board, and then post about your observations.

6. Ideal Resume: Now write the resume you would like to have in 5-10 years, including education, accomplishments, credentials, etc. Overwrite this on the today resume if you like. Attach your resume to the discussion board, and then post about your observations.

7. Informational Interview: This exercise represents one of the most powerful tools in career counseling. Interview a counselor who has been in his/her profession for at least 3 years. Discuss the ways in which he/she had made decisions about pursuing that particular career.
   a. How & from whom did he/she gather information about this career?
   b. What is his/her level of satisfaction in this career?
   c. What are the concerns he/she has about the career & some of the struggles?
   d. How does this career fit his/her family & personal life?
   e. Are there some impediments from the job to home life or home life to job?
   f. What recommendations would he/she give to someone thinking about this career?
   g. What does the future look like for him/her in this career?
   h. What are changes in the field & the opportunities for advancements?
   i. Write a summary of your meeting and post on iLearn. Discuss the impressions you left the meeting with.

   Respond to at least 2 other posts. Describe and discuss.

8. Movie…Career: Select a movie or television show that has some career related theme or work scenes that pose dilemmas for the character(s)- this is open for interpretation, so be creative. Offer a very brief synopsis. What model would be most applicable & why? How might you use this movie/show to aid your own process? Write a summary of both the movie/show and your response to the above items. Post to iLearn under "Movie…Career". Respond to at least 2 other posts.

***D. Career Portfolio***

**25% of final grade**

**Career Portfolio Project**
**Spring 2017**

1. **Go to "What Can I Do With This Major" from the Tech website**
    a. Click on your major (or similar major)
    b. Identify one category (in bold) under AREAS and choose one subcategory within it which you want to learn more about
    c. Complete this for at least 2 areas or subcategories

2. **Research your chosen subcategory using the career-related websites listed below and answer the following questions (Complete this steps for at least 2 jobs per major)–**
   Websites:
    a. Career One Stop
    b. ONET Online

   Questions:
    a. What is the potential salary range for the career field?
    b. What (if any) are the additional requirements for this career field (i.e. graduate school, professional school, licensure, etc.)?
    c. What would be the day to day activities associated with this career field?
    d. How might this career field reflect your **values**?
    e. How does this career field fit with the **skills** you already have?

3. **Utilize a job search website to identify a posted job position related to your chosen category/career field. Identify the site and the position**

* Also consider using the website of a professional organization related to your career to search jobs

4. Using this information, write a ½-page typed rationale for why you are thinking of each of these **careers and how a major in psychology is a good match (that means ½ page for each).**

5. **Select 1 career from 1 major and, using the CC&C Resume Guide, create cover letter as if applying to the job position selected**. See quintcareers for cover letter examples.

6. **30-Second Elevator Speech in response to "Tell me about yourself"**

- Based on the information obtained above (1, 2and 3), write a summary of your skills, abilities, interests, etc. as if you were introducing yourself to a prospective employer, as shown near the bottom of the page at Quintessential Careers

**Final project must include:**

- ½ page typed rationale for each of the 2 majors you selected
- Typed version of your 30-second elevator speech
- Presentation of summary of the above items (1, 2, and 3), culminating in delivery of 30-second elevator speech (2-3 minutes)
- Typed cover letter
- All materials from assignments indexed and compiled

**Department of Curriculum and Instruction**
Box 5042 • Cookeville, TN 38505-0001 • (931) 372-3181 • (931) 372-6270

**MEMORANDUM**

**TO:** University Curriculum Committee (UCC)

**VIA:** Teacher Education Committee (TEC)

**VIA:** College of Education Executive Leadership Council (ELC)

**VIA:** Dr. Julie Baker, Associate Dean, College of Education

**FROM:** Dr. Jeremy Wendt, Chair, Curriculum & Instruction

**DATE:** August 23, 2017

**SUBJECT:** Course/Catalog Change-Effective Spring 2018

**I. Course Deletions: None**

**II. Course Additions:**

**A.** FOED 3840. Field Experiences in ESL Lab. 4-12. Credit 1-3.
Prerequisite: Full admission to the Teacher Education Program. Supervised work experiences in public schools stressing the translation of theory into practice. A minimum grade of B is required to meet degree requirements for licensure candidates.

**Justification:** Field experience specific to ESL majors.
**Financial Impact:** None
**Effective Date:** Spring 2018
**Curriculum Committee Checklist attached.**

**III. Course Changes:**

**A. From:**
SEED 4120(5120). Materials and Methods of Teaching English Lec.3. Credit 3.
Prerequisite: Full admission to the Teacher Education Program; READ 4411 (5411); and COMM 2025 or PC 2500. Corequisite: FOED 3820. Prerequisite or corequisite: Any two of the following: ENGL 3810, ENGL 3820, ENGL 3910, or ENGL 3920; and READ 3350. Principles, objectives, techniques, and evaluation in secondary school teaching of English.

**To:**

SEED 4120(5120). Materials and Methods of Teaching English Lec.3. Credit 3. Prerequisite: Full admission to the Teacher Education Program; READ 4411 (5411); and COMM 2025 or PC 2500. Corequisite: FOED 3820. Prerequisite or corequisite: Any two of the following: ENGL 3810, ENGL 3820, ENGL 3910, or ENGL 3920; and READ 3350. Principles, objectives, techniques, and evaluation in secondary school teaching of English. A minimum grade of B is required to meet degree requirements for licensure candidates.

**Add:** A minimum grade of B is required to meet degree requirements for licensure candidates.

**B. From:**

SEED 4121(5121). Materials and Methods of Teaching Career Technical Education Lec. 3. Credit 3.
Principles, objectives, techniques, and evaluation in secondary school teaching of career technical education.

**To:**

SEED 4121(5121). Materials and Methods of Teaching Career Technical Education Lec. 3. Credit 3.
Principles, objectives, techniques, and evaluation in secondary school teaching of career technical education. A minimum grade of B is required to meet degree requirements for licensure candidates.

**Add:** A minimum grade of B is required to meet degree requirements for licensure candidates.

**C. From:**

SEED 4122(5122). Materials and Methods of Teaching Mathematics Lec. 3. Credit 3. Prerequisite: Full admission to the Teacher Education Program. Corequisite: FOED 3820. Principles, objectives, techniques, and evaluation in secondary school teaching of Mathematics.

**To:**

SEED 4122(5122). Materials and Methods of Teaching Mathematics Lec. 3. Credit 3. Prerequisite: Full admission to the Teacher Education Program. Corequisite: FOED 3820. Principles, objectives, techniques, and evaluation in secondary school teaching of Mathematics. A minimum grade of B is required to meet degree requirements for licensure candidates.

**Add:** A minimum grade of B is required to meet degree requirements for licensure candidates.

**D. From:**

SEED 4123(5123). Materials and Methods of Teaching the Sciences Lec. 3. Credit 3. Prerequisite: Full admission to the Teacher Education Program. Corequisite: FOED 3820. Principles, objectives, techniques, and evaluation in secondary school teaching of the sciences.

**To:**

SEED 4123(5123). Materials and Methods of Teaching the Sciences Lec. 3. Credit 3. Prerequisite: Full admission to the Teacher Education Program. Corequisite: FOED 3820. Principles, objectives, techniques, and evaluation in secondary school teaching of the sciences. A minimum grade of B is required to meet degree requirements for licensure candidates.

**Add:** A minimum grade of B is required to meet degree requirements for licensure candidates.

**E. From:**

SEED 4124(5124). Materials and Methods of Teaching Social Studies Lec. 3. Credit 3. Prerequisite: Full admission to the Teacher Education Program. Corequisite: FOED 3820. Principles, objectives, techniques, and evaluation in secondary school teaching of Social Studies.

**To:**

SEED 4124(5124). Materials and Methods of Teaching Social Studies Lec. 3. Credit 3. Prerequisite: Full admission to the Teacher Education Program. Corequisite: FOED 3820. Principles, objectives, techniques, and evaluation in secondary school teaching of Social Studies. A minimum grade of B is required to meet degree requirements for licensure candidates.

**Add:** A minimum grade of B is required to meet degree requirements for licensure candidates.

**F. From:**

SEED 4125(5125). Materials and Methods of Teaching Foreign Language Lec. 3. Credit 3. Prerequisite: Full admission to the Teacher Education Program. Corequisite: FOED 3800 or CUED 6800. Principles, objectives, techniques, evaluation in secondary school teaching of Foreign Languages. Students enrolled in the 5000-level course will be required to complete additional work as stated in the syllabus.

**To:**

SEED 4125(5125). Materials and Methods of Teaching Foreign Language Lec. 3. Credit 3. Prerequisite: Full admission to the Teacher Education Program. Corequisite: FOED 3800 or CUED 6800. Principles, objectives, techniques, evaluation in secondary school teaching of Foreign Languages. Students enrolled in the 5000-level course will be required to complete additional work as stated in the syllabus. A minimum grade of B is required to meet degree requirements for licensure candidates.

**Add:** A minimum grade of B is required to meet degree requirements for licensure candidates.

**G. From:**

ELED 3140. Teaching of Social Studies Lec. 2. Credit 2. Prerequisite: Full admission to the Teacher Education Program. Corequisite: ELED 3152, ELED 4142, FOED 3800. Current practices, research, innovations, and unit method are emphasized.

**To:**

ELED 3140. Teaching of Social Studies Lec. 2. Credit 2. Prerequisite: Full admission to the Teacher Education Program. Corequisite: ELED 3152, ELED 4142, FOED 3800. Current practices, research, innovations, and unit method are emphasized. A minimum grade of B is required to meet degree requirements for licensure candidates.

**Add:** A minimum grade of B is required to meet degree requirements for licensure candidates.

**H. From:**

ELED 3152. Teaching of Mathematics Lec. 3. Credit 3. Prerequisite: Full admission to the Teacher Education Program. Corequisite: ELED 3140, ELED 4142, FOED 3800. Use of modern methods and strategies for teaching mathematics and translating theory into practice.

**To:**

ELED 3152. Teaching of Mathematics Lec. 3. Credit 3. Prerequisite: Full admission to the Teacher Education Program. Corequisite: ELED 3140, ELED 4142, FOED 3800. Use of modern methods and strategies for teaching mathematics and translating theory into practice. A minimum grade of B is required to meet degree requirements for licensure candidates.

**Add:** A minimum grade of B is required to meet degree requirements for licensure candidates.

I. **From:**

ELED 4142. Teaching of Science Lec. 3. Credit 3.
Prerequisite: Full admission to the Teacher Education Program. Corequisite: ELED 3140, ELED 3152, FOED 3800. Curricula content of elementary school science including materials and methods of developing understanding and skills in science for children.

**To:**

ELED 4142. Teaching of Science Lec. 3. Credit 3.
Prerequisite: Full admission to the Teacher Education Program. Corequisite: ELED 3140, ELED 3152, FOED 3800. Curricula content of elementary school science including materials and methods of developing understanding and skills in science for children. A minimum grade of B is required to meet degree requirements for licensure candidates.

**Add:** A minimum grade of B is required to meet degree requirements for licensure candidates.

**Justification:** A minimum grade of B is required to meet degree requirements for licensure candidates.
**Financial Impact:** None
**Effective Date:** Spring 2018
**Curriculum Committee Checklist attached.**

**Department of Curriculum and Instruction**
Box 5042 • Cookeville, TN 38505-0001 • (931) 372-3181 • (931) 372-6270

# MEMORANDUM

**TO:** University Curriculum Committee (UCC)

**VIA:** Teacher Education Committee (TEC)

**VIA:** College of Education Executive Leadership Council (ELC)

**VIA:** Dr. Julie Baker, Associate Dean, College of Education

**FROM:** Dr. Jeremy Wendt, Chair, Department of Curriculum & Instruction

**DATE:** August 23, 2017

**SUBJECT:** Curriculum Changes in Undergraduate Catalog-Effective Spring 2018

**Course Change:**

1. **Multidisciplinary Studies, English as a Second Language Concentration, B.S.**
   A. **FROM:**
   FOED 3800-Field Experience in Education. Credit 1-3. (1 credit hour required)
   **TO:**
   FOED 3840-Field Experience in ESL. Credit 1-3. (1 credit hour required)

   **Justification:** Curriculum changes tied to Residency and edTPA.

   **Effective:** Spring 2018

**Curriculum Change Sheet:** see attached

| Multidisciplinary Studies, English as a Second Language Concentration, B.S. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| **Freshman Year** | | | | **Credit Hours** | **Sophomore Year** | | | | **Credit Hours** |
| ENGL 1010-English Composition I | | | | 3 | ENGL 2130-Topics in American Literature | | | | 3 |
| ENGL 1020-English Composition II | | | | 3 | ENGL 2230-Topics in British Literature **OR** | | | | |
| FOED 2011-Intro to Teach. & Technology | | | | 2 | ENGL 2330-Topics in World Literature | | | | 3 |
| FOED 1820-Intro. Field Experience **OR** | | | | | Humanities/Fine Arts Elective | | | | 3 |
| FOED 1822-Intro. Field Experience & Orientation | | | | 1 | Social/Behavioral Sciences Elective | | | | 3 |
| MATH 1410-Number Concepts for Teachers | | | | 3 | SPCH 2410-Intro to Speech Comm. **OR** | | | | |
| MATH 1420-Geometry Concepts for Teachers | | | | 3 | PC 2500-Communicating in the Profession | | | | 3 |
| Natural Science | | | | 8 | EDPY 2200-Educational Psychology | | | | 3 |
| Social/Behavioral Sciences Elective | | | | 3 | MATH Elective | | | | 3 |
| HIST 2010-American History I | | | | 3 | Elective | | | | 1 |
| HIST 2020-American History II | | | | 3 | **Select two:** | | | | |
| **Total: 32** | | | | | FREN 2010-Transition to Interm. French **and** | | | | 3 |
| | | | | | FREN 2020-Intermediate French **OR** | | | | 3 |
| | | | | | GERM 2010-Transition to Interm. German **and** | | | | 3 |
| | | | | | GERM 2020-Intermediate German **OR** | | | | 3 |
| | | | | | SPAN 2010-Transition to Interm. Spanish **and** | | | | 3 |
| | | | | | SPAN 2020-Intermediate Spanish | | | | 3 |
| | | | | | **Total: 28** | | | | |
| | | | | | | | | | |
| **Junior Year** | | | | **Credit Hours** | **Senior Year** | | | | **Credit Hours** |
| CFS 3600-Family, Comm. & Prof. Partnsp. | | | | 2 | ELED 4871-Residency I | | | | 5 |
| CUED 4700-Edu Data & Assessment | | | | 2 | ELED 4872-Professional Seminar I | | | | 5 |
| ECSP 4100-Dev Approp Pract/K-4 | | | | 3 | ELED 4881-Residency II | | | | 10 |
| ESLP 4300(5300)-Field Exp. in ESL | | | | 3 | ELED 4882-Professional Seminar II | | | | 2 |
| FOED 3010-Integ. Inst. Tech. into Classrm. | | | | 3 | SPED 3000-Tchg Persons with Disab. In Reg Classroom | | | | 3 |
| ~~FOED 3800-Field Exp. in Education~~ | | | | ~~1~~ | **Total: 25** | | | | |
| FOED 3840 Field Exp. In ESL | | | | 1-3 (1 hr required) | | | | | |
| FOED 3810-Field Exp. in Education | | | | 2 | | | | | |
| READ 3313-Literacy for Special Populations | | | | 5 | | | | | |
| SPED 3050-Universal Design for SPED | | | | 5 | | | | | |
| ESLP 4100(5100)-ESL M&M for PK-12 **OR** | | | | | | | | | |
| TEAE 4020 | | | | 3 | | | | | |
| ESLP 4200(5200)-ESL Assesm: Rdg & Wrtg **OR** | | | | | | | | | |
| TEAE 4437 | | | | 3 | | | | | |
| LING 4511(5511)-Intro. To Descriptive Ling **OR** | | | | | | | | | |
| *ENGL* 4511(5511)-Intro. To Descriptive Ling **OR** | | | | | | | | | |
| TEAE 4500 | | | | 3 | | | | | |
| **Select one:** | | | | | | | | | |
| FREN 3510-France: The County & the People | | | | | | | | | |
| GERM 3520-Germany: The Country & the People | | | | | | | | | |
| SPAN 3510-Spain: The Country & the People | | | | | | | | | |
| SPAN 3550-Latin Amer: The Countries & the Peoples | | | | 3 | | | | | |
| **Total: 35** | | | | | | | | (OVER) | |

| Multidisciplinary Studies, English as a Second Language Concentration, B.S. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| **Note:** | | | | | | | | | |
| | | | | | | | | | |
| [1] Those students who do not place at the 2010 level as determined by a proficiency test admistered by | | | | | | | | | |
| the Departent of Foreign Languages or those students who have not taken two years of foreign language | | | | | | | | | |
| in high school will take 1010, 1020 and 2010 for nine hours in the same language. | | | | | | | | | |
| | | | | | | | | | |

# Tennessee Tech University
# College of Education
# Curriculum & Instruction

## FOED 3820: Field Experience in ESL

Section 001, Field experience, 1-3 credit hours, Spring 2018

### Instructor Information

Instructor: Dorota Silber-Furman Email: dsilber@tntech.edu
Office: MD 329

### Office Hours

Posted outside office

## Conceptual Framework


### Conceptual Framework Statement

Prepare effective, engaging professionals through clinically rich, evidence-based programs with a network of mutually beneficial partnerships.

# Table of Contents



## Prerequisite or Co-Requisite (if applicable)

- Admission to Teacher Education Required
- ESLP 4100

## Required Texts

None

## Recommended Text

Candidate is advised to acquire appropriate materials for teaching effective and engaging lessons.

## Course description

Supervised work experiences in public schools stressing the translation of theory into practice, and focusing on teaching ELs in PreK-12 under supervision of ESL staff (mentor teachers and a university instructor). Experience includes aligning work with educational standards, writing goals and objectives, planning lessons, and assessing student learning.

## Required Special Instructional Materials

- Journal
- Sign in/out log sheet
- Ed TPA approved lesson plan template

## Other materials needed for course:

### Tk20 at TTU

TTU's College of Education uses Tk20, a comprehensive data and reporting system to improve our processes, manage candidate transition points, and track key assessments in program coursework. All students, regardless of affiliated major and college, enrolled in courses requiring Tk20 must purchase an account and submit the appropriate coursework. Failure to purchase Tk20 can result in a zero for Tk20 assignments and/or final course grade reduced a full letter. The one-time-only system cost is $133.33 at the university bookstore, and your account is valid for seven years. You will be asked to access Tk20 for a variety of tasks, including coursework, advisement, field/clinical experiences, portfolios, and key program assessments. Access the TTU Tk20 website for more details.

## Topics Covered

Each candidate's requirements will be negotiated with the mentoring teacher and the school of placement: however, a suggested range of experiences includes: exploring the Context for Learning (edTPA Task 1) according to the diverse needs of the classroom in a variety of settings including small group and whole group (edTPA Task 2). The other topics specific to ESL education include:

- First and second language acquisition lesson planning
- Stages of language development in ELL populations application in lesson plans
- Foundations of language acquisition in practice
- Culture and its impact on learning and teaching
- Multicultural classroom, multicultural attitudes incorporation in lesson plans
- Home-school collaboration and partnerships (teacher/parent letters)
- Differentiated instruction practices
- Recognition of best practice for EL students
- Pedagogy and methodology; strategies
- Reading with EL students
- Writing with EL students
- Assessment of EL students
- Technological impact in action

## Licensure Standards

| | |
|---|---|
| **Objective** | Candidates know, understand, and use the central concepts, tools of inquiry, and structures of the discipline(s) they teach and can create learning experiences that develop student competence in the subject matter. |
| **Standard** | InTASC 4 a-r; TN Licensure Standards Reading 1, 3, 4; TN Teacher Licensure Standards ESL PreK-12 1, 3; TESOL/NCATE P-12 ESL 1 |
| **Assignment(s)** | Lesson Plan, Goals and Objectives Paper |
| **Assessment** | Lesson Plan Rubric, Written Feedback |
| **Praxis test/topic (if applicable)** | CIA I Reading and Language Arts Curriculum, Instruction, and Assessment, PLT II Instructional Practices and V Analysis of Instructional Scenarios, TRE Reading Materials and Instruction; |

| | |
|---|---|
| **Objective** | Candidates understand how children learn and develop and provide learning opportunities that support their intellectual, social, and personal development. |
| **Standard** | InTASC 1 a-k; TN Licensure Standards Reading 1, 2, 3, 4, and 7; TN Teacher Licensure Standards ESL PreK-12 2; TESOL/NCATE P-12 ESL 2 |
| **Assignment(s)** | Lesson Plan, Goals and Objectives Paper |
| **Assessment** | Lesson Plan Rubric, Written Feedback |

| | |
|---|---|
| **Praxis test/topic (if applicable)** | CIA I Reading and Language Arts Curriculum, Instruction, and Assessment, PLT I Students as Leaners, II Instructional Processes, and V Analysis of Instructional Scenarios, and all components of TRE. |

| | |
|---|---|
| **Objective** | The candidate understands how students differ in the approaches to learning and creates instructional opportunities that are adapted to diverselearners. |
| **Standard** | InTASC 2a-l; TN Licensure Standards Reading 1, 2, 3, 4, and 7; TN Teacher Licensure Standards ESL PreK-12 2; TESOL/NCATE P-12 ESL 2 |
| **Assignment(s)** | Lesson Plan, Classroom Description, Reflective Journal |
| **Assessment** | Lesson Plan Rubric, Written feedback |
| **Praxis test/topic (if applicable)** | CIA I Reading and Language Arts Curriculum, Instruction, and Assessment, PLT I Students as Learners, II Instructional Processes, and V Analysis of Instructional Scenarios, and all components of TRE. |

| | |
|---|---|
| **Objective** | The candidate understands and uses a variety of instructional strategies to encourage development of critical thinking, problem solving and performance skills in students. |
| **Standard** | InTASC 5a-d; TN Licensure Standards Reading 1, 4; TN Teacher Licensure Standards ESL PreK-12 3; TESOL/NCATE P-12 ESL 3 |
| **Assignment(s)** | Lesson Plan |
| **Assessment** | Lesson Plan Rubric |
| **Praxis test/topic (if applicable)** | CIA I Reading and Language Arts Curriculum, Instruction, and Assessment, PLT I Students as Learners, II Instructional Processes, and V Analysis of Instructional Scenarios, and all components of TRE. |

| | |
|---|---|
| **Objective** | The candidate understands individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning and self- motivation. |
| **Standard** | InTASC 3 a-I; TN Licensure Standards Reading 7, TN Teacher Licensure Standards ESL PreK-12 2; TESOL/NCATE P-12 ESL 2 |
| **Assignment(s)** | Lesson Plan, Classroom Description |
| **Assessment** | Lesson Plan Rubric and Classroom Description |

| | |
|---|---|
| **Praxis test/topic (if applicable)** | CIA I Reading and Language Arts Curriculum, Instruction, and Assessment, PLT I Students as Learners, II Instructional Processes, and V Analysis of Instructional Scenarios, and all components of TRE. |

| | |
|---|---|
| **Objective** | Candidates use knowledge of effective verbal, nonverbal and media communication techniques to foster active inquiry, collaboration and supportive interaction in the classroom. |
| **Standard** | InTASC 6a-v; Tennessee Licensure Standards in Reading 2, 4, 6; TN Teacher Licensure Standards ESL PreK-12 3; TESOL/NCATE P-12 ESL 3 |
| **Assignment(s)** | Lesson Plan |
| **Assessment** | Lesson Plan Rubric |
| **Praxis test/topic (if applicable)** | CIA I Reading and Language Arts Curriculum, Instruction, and Assessment, PLT I Students as Learners, II Instructional Processes, and V Analysis of Instructional Scenarios, TRE: Reading Environment and Assessment and Evaluation Issues |

| | |
|---|---|
| **Objective** | Candidates plan instruction based upon knowledge of subject matter, students, the community, and curriculum goals. |
| **Standard** | InTASC 1-5; Tennessee Licensure Standards in Reading 1, 3, 4, 5, 7; TN Teacher Licensure Standards ESL PreK-12 1, 2, 3, 5; TESOL/NCATE P-12 ESL 1, 2, 3, 5 |
| **Assignment(s)** | Lesson Plans, Classroom Description, Reflective Journal |
| **Assessment** | Lesson Plan & Written Feedback |
| **Praxis test/topic (if applicable)** | CIA I Reading and Language Arts Curriculum, Instruction, and Assessment, PLT I Students as Learners, II Instructional Processes, and V Analysis of Instructional Scenarios, and all components of TRE. |

| | |
|---|---|
| **Objective** | Candidates know, understand, and use formal and informal assessment strategies to evaluate and ensure the continuing intellectual, social and physical development of the learner. |
| **Standard** | InTASC Standard 6;<br>Tennessee Licensure Standards Reading Standard 5; TN Teacher Licensure Standards ESL PreK-12 4; TESOL/NCATE P-12 ESL 4 |
| **Assignment(s)** | Lesson Plan |
| **Assessment** | Lesson Plan Rubric |

| | |
|---|---|
| **Praxis test/topic (if applicable)** | CIA I Reading and Language Arts Curriculum, Instruction, and Assessment, PLT III Assessment and V Analysis of Instructional Scenarios, TRE Assessment of Reading and Assessment and Evaluation Issues. |

| | |
|---|---|
| **Objective** | Candidates are reflective practitioners who continually evaluate the effects of their choices and actions on others (students, parents, and other professionals in the learning community) who actively seek out opportunities to grow professionally. |
| **Standard** | InTASC Standard 9; Tennessee Licensure Standards Reading Standard 6; TN Teacher Licensure Standards ESL PreK-12 5; TESOL/NCATE P-12 ESL 5 |
| **Assignment(s)** | Reflective Journal |
| **Assessment** | Written Feedback |
| **Praxis test/topic (if applicable)** | PLT IV Professional Development, Leadership, and Community and V Analysis of Instructional Scenarios |

| | |
|---|---|
| **Objective** | The candidate will foster relationships with school colleagues, parents, and agencies in the larger community to support students' learning and well-being. |
| **Standard** | InTASC 10a-t; TN Licensure Standards Reading 7; TN Teacher Licensure Standards ESL PreK-12 5; TESOL/NCATE P-12 ESL 5 |
| **Assignment(s)** | Practicum Participation |
| **Assessment** | Practicum Log |
| **Praxis test/topic (if applicable)** | PLT IV Professional Development, Leadership, and Community and V Analysis of Instructional Scenarios |

| | |
|---|---|
| **Objective** | The candidates will use technology and technology-based resources to facilitate developmentally appropriate student learning and enhance their professional growth and productivity. |
| **Standard** | InTASC 2, 3, 6, 7, 8; TN Licensure Standards Reading 1 and 2; TN Teacher Licensure Standards ESL PreK-12 3; TESOL/NCATE P-12 ESL 3 |
| **Assignment(s)** | Technology resources incorporated into lesson planning and instruction |
| **Assessment** | Lesson Plan Rubric |
| **Praxis test/topic (if applicable)** | PLT II Instructional Process and TRE Assessment/Evaluation Issues |

## Major Teaching Methods

Discussion, modeling, direct instruction, research, peer and teacher conferences.

## Class Discussion

Each candidate is expected to carefully collaborate with the mentor teacher and the course instructor. Communication via email and iLearn presence is expected and mandatory.

## Assignments & Class Readiness

All assignments are due on time as outlined on the schedule. Check separate document for assignments.
The candidate will need to log and document evidence from two placements – one elementary or middle school setting (15 hours), and one secondary setting (15 hours). The log of clock hours for each setting should be maintained by the candidate and submitted along with each of the final evaluations from the designated mentoring teachers or administrators. A complete set of documents including the appropriate evaluation form and log should be returned to the instructor on record.

## iLearn

All assignments must be submitted to iLearn.

## Grading and Evaluation

### Total points

A: 450-500
B: 400-449
C: 350-399
D: 300-349
F: below 299

## Links and Resources

### Education Standards Links

Use the following links to access the: Tennessee Professional Educational Standards, INTASC Standards, and the Council for Exceptional Children

## TTU Library Online Access

The Tennessee Tech Library is available to all candidates enrolled at TTU. Links to the library materials (such as electronic journals, databases, interlibrary loans, digital reserves, dictionaries, encyclopedias, maps, and librarian support) and Internet resources are available to complete assignments. To access the online databases, use your TTU PC Lab username and password. Visit the ITS site to find out more about initializing your TTU account or resetting your password.
More information on electronic media is available at the TTU Volpe Library.

# Course & University Policies

## Attendance Policy

Due to the practicum placement requirements, students are to attend each day of practicum. If a situation arises which requires you to be absent, you should notify your mentor teacher and course instructor immediately.

Note: All absences should be supported with documentation presented to your instructor. You MUST make-up any missed practicum days.

## Copyright and Fair Use

All projects created in this course should follow appropriate copy write and fair use policy. *Please note:* TTU personnel may display your work created during the scope of this course during accreditation, conference presentations, workshops, and/or future classes.

## TTU Office of Disability Service

DISABILITY ACCOMMODATION

Students with a disability requiring accommodations should contact the Office of Disability Services (ODS). An Accommodation Request (AR) should be completed as soon as possible, preferably by the end of the first week of the course. The ODS is located in the Roaden University Center, Room 112; phone 372-6119. For details, view the Tennessee Tech's Policy 340 – Services for Students with Disabilities at Policy Central.

## Pandemic Plan

Should normal classroom activities at your placement be disrupted by a pandemic outbreak, the format for this course may be modified to enable completion. In that event,

new instructions for the continuation of the course will be provided (Source: TTU University Faculty Meeting, August 25, 2009).

## Student Academic Misconduct Policy

Student Disciplinary Policy can be found at Policy Central.

Please note self-plagiarism will also not be allowed. Candidates cannot submit course work from another class for an assignment in this course. Self-plagiarism will result in a loss of all assignment points.

**Department of Curriculum and Instruction**
Box 5042 • Cookeville, TN 38505-0001 • (931) 372-3181 • (931) 372-6270

**MEMORANDUM**

**TO:** University Curriculum Committee (UCC)

**VIA:** College of Education Executive Leadership Council (ELC)

**VIA:** Teacher Education Committee (TEC)

**VIA:** Dr. Julie Baker, Associate Dean, College of Education

**FROM:** Dr. Jeremy Wendt, Chair, Curriculum & Instruction

**DATE:** August 23, 2017

**SUBJECT:** Termination of two concentrations within an existing major

Curriculum and Instruction is requesting the termination of the Special Education, Modified Program Concentration, B.S. and the Multidisciplinary Studies, Middle School Concentration, B.S.

Due to changes in Tennessee state licensure requirements for the special education endorsement areas, the current licensure area—Special Education Modified Program K-12—will be superseded on August 31, 2017. The Department has updated concentrations to reflect the new requirements within the endorsement areas replacing SPED Modified: Special Education Interventionist K-5 and Special Education Interventionist 6-12.

The need is due to changes in Tennessee state licensure requirements for the special education endorsement areas. The current licensure area (Middle Grades 4-8) will be superseded on August 31, 2017. We must change our concentrations to reflect the new requirements within the endorsement areas replacing. These new endorsement areas were effective September 1, 2015. Please see the State Board of Education Amended Licensure Policy 5.502, Amended October 2014: **http://www.state.tn.us/sbe/Policies/5-502_EducatorLicensurePolicy_10-31-14.pdf**

Teacher candidates have already been phased out of these concentrations; no students remain in the 2 concentrations. We are requesting the two concentrations are removed from the admission application and the catalog immediately.

**Financial Impact:** None
**Effective Date:** Immediately
**Forms Attached:** THEC Form(s)

Department of Chemistry

TENNESSEE TECH

**MEMORANDUM**

**TO:** University Curriculum Committee

**VIA:** Arts & Sciences Curriculum Committee

**FROM:** Jeffrey O. Boles, Chair, Department of Chemistry

**DATE:** 30 August 2017

**SUBJECT:** Course Name and Description Changes

1. **Course Modifications**

   **a. Change the name and description of CHEM 3510…**

   From:

**CHEM 3510 - Physical Chemistry** Fall, Spring. Lec. 3. Lab. 3. Credit 4.
Prerequisite: CHEM 1120, MATH 1920, PHYS 2020 or PHYS 2110 (may be taken concurrently.)
Introduction to quantum mechanics and spectroscopy, the gas state, thermodynamics and thermochemistry, heterogeneous equilibria, kinetics, electrochemistry, colloids, photochemistry, and the solid state.

   To:

**CHEM 3510 - Physical Chemistry I** Fall, Lec. 3. Lab. 3. Credit 4.
Prerequisite: CHEM 1120, MATH 1920, PHYS 2020 or PHYS 2110 (may be taken concurrently.)
Introduction to modern, molecular approach to physical chemistry. A moderately rigorous introduction to quantum chemistry covering symmetry, bonding, molecular spectroscopy and statistical mechanics to set a stage for the molecular treatment of thermodynamics and kinetics in CHEM 3520. Lectures are reinforced by a systematic set of modern spectroscopy laboratory experiments.

**b. Change the name and description of CHEM 3520…**

From:

**CHEM 3520 - Physical Chemistry** Fall, Spring. Lec. 3. Lab. 3. Credit 4.
Prerequisite: CHEM 3510. Introduction to quantum mechanics and spectroscopy, the gas state, thermodynamics and thermochemistry, heterogeneous equilibria, kinetics, electrochemistry, colloids, photochemistry, and the solid state.

To:

**CHEM 3520 - Physical Chemistry II** Spring. Lec. 3. Lab. 3. Credit 4.
Prerequisite: CHEM 3510. Kinetic theory of gases and Boltzmann distribution, Classical thermodynamics, adiabatic changes and Maxwell equations, heat capacity and equipartition theorem, thermodynamic and statistical entropy, chemical equilibrium, Electrochemistry, Phase transitions and thermodynamic aspects of phases, introduction to chemical kinetics and reaction dynamics. Lectures are reinforced by a systematic set of classical experiments in thermodynamics and kinetics.

**Justification**
The changes requested are correcting holdovers from old catalog listings where these course sequences were each provided only a single listing. When transitioning to the new online catalog, the courses were separated but the titles and description were not. We received comments that the identical titles for CHEM 3510/3520 and CHEM 4610/4620 were creating confusion, especially with transfer students. We hope that clearly distinguishing between these courses, this misunderstanding will be eliminated.

**Financial Impact**

No additional resources are needed for this request.

**Effective Date**

Fall 2018

Department of Chemistry
TENNESSEE TECH

**MEMORANDUM**

**TO:** University Curriculum Committee
Graduate School Executive Committee

**VIA:** Arts & Sciences Curriculum Committee

**FROM:** Jeffrey O. Boles, Chair, Department of Chemistry

**DATE:** 30 August 2017

**SUBJECT:** Course Changes

1. **Course Name and Description Changes**

   **a. Change the name of CHEM 4310 (5310)…**

   From:

**CHEM 4310 (5310) - Nuclear and Radiochemistry** Spring. Lec. 2. Lab. 3. Credit 3. Prerequisite: **CHEM 3500** or **CHEM 3510** (may be taken concurrently.) Introduction to theory of nuclear stability and decay processes. The laboratory emphasizes the detection, safe handling, and use of radioisotopes in chemical investigations.

   To:

**CHEM 4310 (5310) - Nuclear Chemistry and Radiochemistry** Spring. Lec. 2. Lab. 3. Credit 3. Prerequisite: **CHEM 3500** or **CHEM 3510** (may be taken concurrently.) Introduction to theory of nuclear stability and decay processes. The laboratory emphasizes the detection, safe handling, and use of radioisotopes in chemical investigations.

**Justification**
This name change is at the request of our new radiochemist, Dr. Cory Hawkins. It is based not only on correct grammar but on the fact that these are two separate but related subjects.

**b. Change the name and description of CHEM 4610 (5610)…**

From:

**CHEM 4610 (5610) - General Biochemistry** Fall. Lec. 3. Credit 3.
Prerequisite: CHEM 3010 and CHEM 3020, or consent of instructor. Chemistry of proteins, lipids, carbohydrates and nucleic acids. Includes study of pH, buffer system, and biological separation methods.

To:

**CHEM 4610 (5610) - General Biochemistry I** Fall, Spring. Lec. 3. Credit 3.
Prerequisite: CHEM 3010 and CHEM 3020, or consent of instructor. Chemistry of amino acids, proteins, lipids, carbohydrates, membranes and nucleic acids. Includes study of pH, enzyme kinetics, three-dimensional structure and biochemical separation methods and analysis.

**c. Change the name and description of CHEM 4620…**

From:

**CHEM 4620 (5620) - General Biochemistry** Spring. Lec. 3. Credit 3.
Prerequisite: CHEM 4610 (5610). Intermediary metabolism, bioenergetics, and biosynthesis.

To:

**CHEM 4620 (5620) - General Biochemistry II** Spring. Lec. 3. Credit 3.
Prerequisite: CHEM 4610 (5610). Intermediary metabolism and its regulation, bioenergetics and photosynthesis, biosynthesis of proteins and nucleic acids.

**Justification**
The changes requested are correcting holdovers from old catalog listings where these course sequences were each provided only a single listing. When transitioning to the new online catalog, the courses were separated but the titles and description were not. We received comments that the identical titles for CHEM 3510/3520 and CHEM 4610/4620 were creating confusion, especially with transfer students. We hope that clearly distinguishing between these courses, this misunderstanding will be eliminated.

**Financial Impact**

No additional resources are needed for this request.

**Effective Date**

Fall 2018

**MEMORANDUM**

**TO:** University Curriculum Committee (UCC)

**VIA:** Dr. Linda Null, Chair, College of Arts and Sciences Curriculum Committee

**FROM:** Dr. Martin Sheehan, Interim Chair, Department of Foreign Languages

**SUBJECT:** Curriculum Change to Department of Foreign Languages

**DATE:** August 25, 2017

I. Curricular change

FROM:

HIST 4640 History of Modern Germany

Select one:

HIST 4530 Renaissance and Reformation
HIST 4540 Absolutism and Enlightenment
HIST 4550 French Revolution and Napoleon
HIST 4560 19th Century Europe
HIST 4570 World War II and the Cold War

TO:

HIST 4640 History of Modern Germany

**And one of the following:**

HIST 4530 Renaissance and Reformation
HIST 4540 Absolutism and Enlightenment
HIST 4550 French Revolution and Napoleon
HIST 4560 19th Century Europe
HIST 4570 World War II and the Cold War

**OR**

**Two course lower level sequence in another foreign language taught in the foreign language.**

Apply to: Foreign Languages, German Option 1, B.A.

Justification: This requirement already exists in option 1 of the French and Spanish programs. This change will bring consistency in all of programs taught in the Department of Foreign Languages. The insertion of "And one of the following" will clarify options to students and advisors.

Financial Impact: none
Effective date: Spring 2018

**PROPOSED**

**Foreign Languages**
**FOREIGN LANGUAGE, GERMAN OPTION 1, B.A.**
**Effective Fall 2017**

| Freshman Year | | Credit | Sophomore Year | | Credit |
|---|---|---|---|---|---|
| ENGL 1010 | English Composition I | 3 | GERM 3010[iii] | Written Communication in German | 3 |
| ENGL 1020 | English Composition II | 3 | GERM 3020[iv] | Oral Communication in German | 3 |
| GERM 2010[i] | Transition to Intermediate German | 3 | HIST 2010 | Early United States History | 3 |
| GERM 2020[ii] | Intermediate German | 3 | HIST 2020 | Modern United States History | 3 |
| MATH | | 3 | COM 2025 | Fundamentals of Communication | 3 |
| Natural Science | | 8 | Electives | | 3 |
| Humanities/Fine Arts Elective[2] | | 3 | Social/Behavioral Sciences Electives | | 6 |
| HIST 2210<br>HIST2310 | Early Western Civilization<br>Early World History | 3 | **Select two**<br>ENGL 2130<br>ENGL 2230<br>ENGL 2330 | American Literature or<br>British Literature or<br>World Literature | 6 |
| HIST 2220<br>HIST 2320 | Modern Western Civilization<br>Modern World History | 3 | | | |
| UNIV 1020[1] | First-Year Connections | 1 | | | |
| **Total** | | **32** | **Total** | | **30** |

| Junior Year | | Credit | Senior Year | | Credit |
|---|---|---|---|---|---|
| GERM 3112 | German Civilization and Culture | 3 | GERM 4920[3] | Senior Capstone | 3 |
| GERM 3150 | Intro to German Lit | 3 | **Select two**<br>GERM 3200<br>GERM 4810<br>GERM 4910 | Business German or<br>Special Topics in German or<br>Directed Studies in German | 6 |
| GERM 3200<br>GERM 4810<br>GERM 4910 | Business German or<br>Special Topics in German or<br>Directed Studies in German | 3 | Electives | | 19 |
| HIST 4640<br>**and**<br>**Select one**<br>HIST 4530<br>HIST 4540<br>HIST 4550<br>HIST 4560<br>HIST 4570<br><br>**Or** | History of Modern Germany<br><br><br>Renaissance and Reformation<br>Absolutism and Enlightenment<br>French Revolution and Napoleon<br>19th Century Europe<br>World War II and the Cold War<br><br>Two lower-level sequence courses in another foreign language which are taught in the foreign language. | 6 | | | |
| Electives | | 15 | | | |
| **Total** | | **30** | **Total** | | **28** |

Note:

* Students are strongly encouraged to take at least six hours in a study-abroad program.
1 This course not included in 120-hour curriculum.
2 **ART 1030**, **FREN 2510**, **MUS 1030**, **SPAN 2510**, **SPAN 2550**, **THEA 1030** or **PHIL 1030**
3 Students pursuing Teacher Licensure must take GERM 4925: Teaching Licensure Senior Capstone instead of GERM 4920: Senior Capstone.
i Foreign Language majors must pass GERM 2010 with a minimum of C or better in order to enroll in GERM 2020.
ii Foreign Language majors must pass GERM 2020 with a minimum of C or better in order to enroll in GERM 3010.
iii Foreign Language majors must pass GERM 3010 with a minimum of C or better in order to enroll in subsequent upper-division German courses.
iv Foreign Language majors must pass GERM 3020 with a minimum of C or better in order to enroll in subsequent upper-division German courses.

General and Basic Engineering

TENNESSEE TECH

**MEMORANDUM**

| | |
|---|---|
| **TO:** | University Curriculum Committee (UCC) |
| **VIA:** | Engineering Curriculum Committee (ECC) |
| **VIA:** | General and Basic Engineering Faculty |
| **FROM:** | Kris Craven, Chair, GBE Dept. |
| **DATE:** | August 17, 2017 |
| **SUBJECT:** | Catalog Changes for Basic Engineering Curriculum |

## I. CURRICULUM

**CHANGE: FROM:**

- CHEM 1110 - General Chemistry I Credit: 4. [1]
- CHEM 1120 - General Chemistry II Credit: 4. [1]
- ENGR 1020 - Connections to Engineering and Technology Credit: 1. [2]
- ENGR 1110 - Engineering Graphics Credit: 2. [1]
- ENGR 1120 - Programming for Engineers Credit: 2. [1]
- ENGR 1210 - Introduction to Engineering Credit: 1.
- ENGL 1010 - English Composition I Credit: 3.
- ENGL 1020 - English Composition II Credit: 3.
- MATH 1910 - Calculus I Credit: 4.
- MATH 1920 - Calculus II Credit: 4.
- Humanities/Fine Arts Electives Credit 6

Total: 34

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Notes:

1 Students should consult with their advisor prior to taking ENGR 1110, ENGR 1120 or CHEM 1120 to ensure the courses are applicable to the Engineering disciplines in which the student has potentital interest.

2 This course not included in 128-hour curriculum.

TO:

- CHEM 1110 - General Chemistry I Credit: 4. [1]
- PHYS 2110 - Calculus-based Physics I Credit: 4. [1]
- ~~CHEM 1120 - General Chemistry II Credit: 4.~~ [1]
- ENGR 1020 - Connections to Engineering and Technology Credit: 1. [2]
- ENGR 1110 - Engineering Graphics Credit: 2. [1]
- ENGR 1120 - Programming for Engineers Credit: 2. [1] OR
- CSC 1300 - Introduction to Problem Solving and Computer Programming Credit: 4. [1]
- ~~ENGR 1210 - Introduction to Engineering Credit: 1.~~
- ENGL 1010 - English Composition I Credit: 3.
- ENGL 1020 - English Composition II Credit: 3.
- MATH 1910 - Calculus I Credit: 4.
- MATH 1920 - Calculus II Credit: 4.
- Humanities/Fine Arts and/or Social/Behavioral Sciences Electives Credit 6 Total: ~~34~~ 33/35

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Notes:

1 Students should consult with their advisor prior to taking ENGR 1110, ENGR 1120, CSC 1300, or ~~CHEM 1120,~~ or PHYS 2110 to ensure the courses are applicable to the Engineering disciplines in which the student has ~~potentital~~ potential interest. 2 This course not included in 128-hour curriculum.

**Justification:** The departments in the College of Engineering have made a number of changes to their curricula. The existing curriculum is no longer consistent with current practice based on these changes.

**Financial Impact:** None

**Effective:** Fall 2018

**MEMORANDUM**

**TO:** University Undergraduate Curriculum Committee

**VIA:** Engineering Undergraduate Curriculum Committee

**VIA:** Dr. Pedro E. Arce, Chair

**FROM:** Venkat Padmanabhan, Assistant Professor

**DATE:** August 31, 2017

**SUBJECT: Curriculum Modifications**

I. **Course Additions, Deletions and Changes**

**1. Course Additions:**

**CHE**

**CHE 1020-**Processes, Products & Ethics. Lec. 1 Credit 1
Professionalism and Ethics are central in the practice of Engineering. Fundamental program outcome addressed formally in this course and applied throughout the curriculum in various manners**.**

Justification: Changing CHE 4910 from senior year to CHE 1020 freshmen year.

**CHE 2015. Intro to Chem & Bio Process Analysis & Scaling I.** Lec. 2 Lab 2 Credit 3

Prerequisite: ENGR 1120 and MATH 1920. May be taken concurrently. Introduction to basic concepts of chemical engineering including unit analysis, balance concepts and various mathematical tools including use of software such as Excel, MatLab, Visual Basic.

Course is equivalent to CHE 1520. Move to Fall 2nd Year

**XXXxxx - Tech elective[4]** Lec. 3. Credit 3.
Justification: Allowing students to have more of a choice with their electives to better align with their career interests.
See Note 4 on Curriculum sheet.

**CHE 4245-** Clinical Immersion. IND Hours 3. Credit 3
Justification: Creating a course number to be a CHE Technical Elective instead of a Special Topics and to eliminate substitution forms.

**CHE 4335-** Fuel Cells- Lec. 3 Credit 3
Justification: Creating a course a number to be a CHE Technical Elective instead of a Special Topics and to eliminate substitution forms.

**CHE 4440-** Protein Engineering- Lec. 3 Credit 3
Justification: Creating a course a number to be a CHE Technical Elective instead of a Special Topics and to eliminate substitution forms.

2. **Course Deletions:**

**CHE 1520 -** Intro to Chem & Bio Process Analysis & Scaling I Lec. 2 Lab 2. Credit 3
Prerequisite: C or better in CHEM 1110, CHEM 1120 and MATH 1910.
Corequisite: Math 1920.
Justification: Changing number to CHE 2015 and moving to sophomore year in the curriculum line up.

**CHE 4910- Professionalism & Ethics**
Justification: Changing number to CHE 1020 and moving to Freshman year.

3. **Changes**
**Catalog descriptions**:

**From**

**CHE 2020. Intro to Chem & Bio Process Analysis & Scaling II.** Lec. 2 Lab 2 Credit 3

Quantitative descriptions of chemical and biological engineering systems. Conservation of mass and energy for single and multi-process units as well as for reactive and non-reactive systems. Lab introduces report writing and basic measurement techniques.

**To**

**CHE 2020. Intro to Chem & Bio Process Analysis & Scaling II.** Lec. 2 Lab 2 Credit 3.

Quantitative descriptions of chemical and biological engineering systems. Conservation of mass ~~and energy~~ for single and multi-process units as well as for reactive and non-reactive systems. Lab introduces report writing and basic measurement techniques.

**CHE 4971 Special Topics.** Lec 1. Credit 1.

Allow to be a repeatable course.

**CHE 4972 Special Topics.** Lec 2. Credit 2.

Allow to be a repeatable course.

**CHE 4973 Special Topics.** Lec 3 Credit 3

Allow to be a repeatable course.

**Curriculum Changes**

Changing the CEE2110/BIOL 3200 elective to a Technical elective.

**Prerequisite Changes**

**CHE 2020. Intro to Chem & Bio Process Analysis & Scaling II.** Lec. 2 Lab2 Credit 3

**From**

Prerequisite: ENGR 1120, CHEM 1120 and MATH 1920

**To**

Prerequisite: ENGR 1120, C or better in CHE 2015, Math 1920 and Chem 1120. Move to Spring 2nd Year in curriculum line up.

**CHE 3010. Thermodynamics of Chemical Processes.** Lec. 3 Credit 3

**From**

Prerequisite: CHE 1520, CHE 2020, CHEM 1120 and MATH 1910

**To**

Prerequisite: CHE 2015 Minimum grade of C. CHE 2020, MATH 2110, and MATH 2120

**CHE 3111. Trans Sci I: Cond, Raditn, Diff**

**From**

Prerequisite**:** CHE 2020, Math 2110, Math 2120

**To**

Prerequisite: CHE 2010, CHE 2020, MATH 2110 and MATH 2120

**CHE 3021. Separations /Solutions Thermo**

**From**

Prerequisite: CHE 3010. Minimum grade of D. May not be taken concurrently.

**To**

Prerequisite:  CHE 3010, MATH 2110, and MATH 2120.

**CHE 3121. Transfer Sci II:  Fluid Mechanics**

**From**

Prerequisite:  CHE 2020 and Math 2110. Corequisite: Math 2120

**To**

Prerequisite:  CHE 3111, Math 2110 and Math 2120. May not take concurrently.

**CHE 3730. CHE Operations**

**From**

Prerequisite:  CHE 1520

**To**

Prerequisite:  CHE 2015 Minimum grade of C. Math 2110 and Math 2120. Math 2120 may be taken concurrently.

**CHE 4131(5131).  Transfer Science III: Diffusion-Convective Mass Transfer**

**From**

Prerequisite:  CHE 3010, CHE 3021, and CHE 3121

**To**

Prerequisite:  CHE 3010, CHE 3021, CHE 3111 and CHE 3121. May not be taken concurrently.

**CHE 4210. Chemical Reaction Engineering**

**From**

Prerequisite:  CHE 3021, CHE 3121. Minimum grade of D.

**To**

Prerequisite: CHE 3010, CHE 3021, CHE 3111, and CHE 3121.

**CHE 4410. Process Design I**

**From**

Prerequisite: CHE 3020, CHE 3021 and CHE 3121

**To**

Prerequisite: CHE 3021 and CHE 3121.

**CHE 4661. Transport in Biochem/Biol Proc**

**From**

Prerequisite: CHE 4210

**To**

Prerequisite: CHE 3111, CHE 3121, CHE 4131, CHE 4210. May not be taken concurrently.

**Financial Impact**

No additional resources are needed for this request.

**MEMORANDUM**

**TO:** University Undergraduate Curriculum Committee

**VIA:** Engineering Undergraduate Curriculum Committee

**VIA:** Dr. Pedro E. Arce, Chair

**FROM:** Venkat Padmanabhan, Assistant Professor

**DATE:** August 31, 2017

**SUBJECT:** **Curriculum Modifications**

I. **Course Additions, Deletions**

**1. Course Additions:**

**BMOL**

**BIOL 3230-** Health Science Microbiology. Lec. 2 Lab 4 Credit 4
Justification: Students may take either BIOL 3200 or BIOL 3230. Eliminates Substitution forms.

**CHE 1020-**Processes, Products & Ethics. Lec. 1 Credit 1
Professionalism and Ethics are central in the practice of Engineering. Fundamental program outcome addressed formally in this course and applied throughout the curriculum in various manners**.**

Justification: Changing CHE 4910 from senior year to CHE 1020 freshmen year.

**CHE 2015. Intro to Chem & Bio Process Analysis & Scaling I.** Lec. 2 Lab 2 Credit 3

Prerequisite: ENGR 1120 and MATH 1920. May be taken concurrently. Introduction to basic concepts of chemical engineering including unit analysis, balance concepts and various mathematical tools including use of software such as Excel, MatLab and Visual Basic.

Course is equivalent to CHE 1520. Move to Fall 2nd Year

2. **Course Deletions:**

**CHE 1520 -** Intro to Chem & Bio Process Analysis & Scaling I Lec. 2 Lab 2. Credit 3

Justification: Changing number to CHE 2015 and moving to sophomore year in the curriculum line up.

**CHE 4910-**Prof and Ethics in ChE

Justification: Changing number to CHE 1020 and moving to Freshmen year.

**Financial Impact**

No additional resources are needed for this request.

# BS in Chemical Engineering (ChE)

(students beginning at TTU during Spring 2018 or later)

| 1st Year | FALL | |
|---|---|---|
| ENGR 1120 | Programming[1] | 2 |
| MATH 1910 | Calculus I | 4 |
| CHEM 1110 | General Chemistry I | 4 |
| ENGL 1010 | Writing I | 3 |
| CHE 1010[2] | Intro. to Chemical Eng. | 1 |
| **Total Credit Hours** | | **14** |

| 1st Year | SPRING | |
|---|---|---|
| Hum/Fine Arts | GE Elective | 3 |
| MATH 1920 | Calculus 2 | 4 |
| CHEM 1120 | General Chemistry 2 | 4 |
| ENGL 1020 | Writing 2 | 3 |
| CHE 1020 | CHE Processes, Products & Ethics | 1 |
| **Total Credit Hours** | | **15** |

| 2nd Year | FALL | |
|---|---|---|
| CHE 2015 | Intro to Chem/Bio An-Scl I | 3 |
| MATH 2110 | Calculus 3 | 4 |
| PHYS 2110 | Physics I w/ Lab | 4 |
| Hum/Fine Arts | (Lit) ENGL 2130, 2230 or 2330 | 3 |
| Soc/Beh. Sc. | GE Elective | 3 |
| **Total Credit Hours** | | **17** |

| 2nd Year | SPRING | |
|---|---|---|
| CHE 2020 | Intro to Chem/Bio An-Scl II | 3 |
| CHE 3730 | ChE Operations | 3 |
| MATH 2120 | Differential Equations | 3 |
| PHYS 2120 | Physics II w/ Lab | 4 |
| COMM 2025 | Fundamentals of Communication | 3 |
| or PC 2500 | Communicating in the Profession | |
| **Total Credit Hours** | | **16** |

| 3rd Year[3] | FALL | |
|---|---|---|
| Hum/Fine Arts | GE Elective | 3 |
| CHEM 3010 | Organic Chemistry 1 | 4 |
| CHE 3010 | Thermo of Chemical Processes | 3 |
| CHE 3111 | TS1: Conduction, Radiation, Diff | 4 |
| XXX xxxx | Tech Elective[4] | 3 |
| **Total Credit Hours** | | **17** |

| 3rd Year[3] | SPRING | |
|---|---|---|
| CHEM 3020 | Organic Chemistry 2 | 4 |
| CHE 3021 | Separations/Solution Thermo | 4 |
| CHE 3121 | TS 2: Fluid Mechanics | 4 |
| XXX xxxx | Tech Elective[4] | 3 |
| Soc/Beh. Sc. | GE Elective | 3 |
| **Total Credit Hours** | | **18** |

| 4th Year | FALL | |
|---|---|---|
| CHEM 3510 | Physical Chemistry 1 | 4 |
| CHE 4131 | TS3: Diffusion & Mass Transfer | 4 |
| CHE 4210 | Chemical Reaction Engineering | 4 |
| CHE 4410 | Process Design I | 3 |
| **Total Credit Hours** | | **15** |

| 4th Year | SPRING | |
|---|---|---|
| CHEM 3520 | Physical Chemistry 2 | 4 |
| CHE 4240 | ChE Capstone Lab | 1 |
| CHE 4420 | Process Design II | 3 |
| CHE 4540 | Process Dyn. & Contr. | 3 |
| CHE 4xxx | ChE Tech. Elec.[5] | 3 |
| CHE 4xxx | ChE Tech. Elec.[5] | 3 |
| **Total Credit Hours** | | **17** |

**NOTES:**

1. ENGR 1120 must be MATLAB.
2. Fulfills UNIV 1020 requirement.
3. Students must apply to the ChE Fast-Track MS program by the end of their second junior term.
4. Six hours of Technical Elective can be from any of the following courses:
   a. Any College of Engineering course at the 3000 or 4000 level
   b. Any BIOL/CHEM/MATH/PHYS at the 3000 or 4000 level
   c. Any course with the prior approval of the ChE Undergraduate Program Coordinator
5. Six hours of ChE Technical Elective must come from two of the following courses:
   ChE 4245 – Clinical Immersion
   ChE 4330 – Polymers Engineering
   ChE 4335 – Fuel Cells
   ChE 4440 – Protein Engineering
   ChE 4661 – Transport in Biochemical & Biological Processes
   ChE 4990 – Intro to Research

**General Education Core Electives**

*At least one literature course, selected from those marked with an asterisk (*) must be included.*

| Humanities and/or Fine Arts (9 hours) | | |
|---|---|---|
| ART 1030 | Art Appreciation | 3 |
| ENGL 2130* | American Literature | 3 |
| ENGL 2235* | Topics in British Literature | 3 |
| ENGL 2330* | World Literature | 3 |
| FREN 2510 | French Culture and Civilization | 3 |
| GERM 2520 | German Culture and Civilization | 3 |
| HIST 2210 | Early Western Civilization | 3 |
| HIST 2220 | Modern Western Civilization | 3 |
| HIST 2310 | Early World History | 3 |
| HIST 2320 | Modern World History | 3 |
| MUS 1030 | Music Appreciation | 3 |
| THEA 1030 | Introduction to Theater | 3 |
| PHIL 1030 | Introduction to Philosophy | 3 |
| SPAN 2510 | Spanish Culture and Civilization | 3 |
| SPAN 2550 | Latin American Culture and Civilization | 3 |

| Social/Behavioral Sciences (6 hours) | | |
|---|---|---|
| ANTH (SOC) | Introduction to Anthropology | 3 |
| ECON 2010 | Principles of Microeconomics | 3 |
| ECON 2020 | Principles of Macroeconomics | 3 |
| GEOG 1012 | Cultural Geography | 3 |
| POLS 1030 | American Government | 3 |
| PSY 1030 | Introduction to Psychology | 3 |
| SOC 1010 | Introduction to Sociology | 3 |
| GEOG 1130 | Geography of Natural Hazards | 3 |
| AGBE 2010 | World Food and Society | 3 |
| WGS 2010 | Intro to Women/Gender Studies | 3 |

Updated 9/2017

# BS in Chemical Engineering (ChE) – *Bio-Molecular Engineering Concentration*

(students beginning at TTU during Spring 2018 or later)

| 1st Year | FALL | |
|---|---|---|
| MATH 1910 | Calculus I | 4 |
| CHEM 1110 | General Chemistry I | 4 |
| ENGL 1010 | Writing I | 3 |
| ENGR 1120 | Programming[1] | 2 |
| CHE 1010[2] | Intro. to Chemical Eng. | 1 |
| **Total Credit Hours** | | **14** |

| 1st Year | SPRING | |
|---|---|---|
| BIOL 1105 | Foundations of Biology w/Lab | 4 |
| MATH 1920 | Calculus 2 | 4 |
| CHEM 1120 | General Chemistry 2 | 4 |
| ENGL 1020 | Writing 2 | 3 |
| CHE 1020 | CHE Processes, Products & Ethics | 1 |
| **Total Credit Hours** | | **16** |

| 2nd Year | FALL | |
|---|---|---|
| CHE 2015 | Intro to Chem/Bio An-Scl I | 3 |
| MATH 2110 | Calculus 3 | 4 |
| PHYS 2109 | Calculus based Physics I | 3 |
| Hum/Fine Arts | GE Elective | 3 |
| Soc/Beh. Sc. | GE Elective | 3 |
| **Total Credit Hours** | | **16** |

| 2nd Year | SPRING | |
|---|---|---|
| CHE 2020 | Intro to Chem/Bio An-Scl II | 3 |
| MATH 2120 | Differential Equations | 3 |
| PHYS 2119 | Calculus based Physics 2 | 3 |
| CHE 3730 | ChE Operations | 3 |
| Hum/Fine Arts | (Lit) ENGL 2130, 2235 or 2330 | 3 |
| COMM 2025 | Fundamentals of Communication | 3 |
| or PC 2500 | Communicating in the Profession | |
| **Total Credit Hours** | | **18** |

| 3rd Year[3] | FALL | |
|---|---|---|
| BIOL 3200 or 3230 | Gen or Health Sci Microbiology | 4 |
| CHEM 3010 | Organic Chemistry 1 | 4 |
| CHE 3010 | Thermo of Chemical Processes | 3 |
| CHE 3111 | TS1: Conduction, Radiation, Diff | 4 |
| CHEM 3510 | Physical Chemistry 1 | 4 |
| **Total Credit Hours** | | **19** |

| 3rd Year[3] | SPRING | |
|---|---|---|
| CHEM 3020 | Organic Chemistry 2 | 4 |
| CHE 3021 | Separations/Solution Thermo | 4 |
| CHE 3121 | TS 2: Fluid Mechanics | 4 |
| BIOL 3140 | Cellular Biology | 4 |
| **Total Credit Hours** | | **16** |

| 4th Year | FALL | |
|---|---|---|
| CHEM 4610 | General Biochemistry | 3 |
| CHE 4131 | TS3: Diffusion & Mass Transfer | 4 |
| CHE 4210 | Chemical Reaction Engineering | 4 |
| CHE 4410 | Process Design I | 3 |
| **Total Credit Hours** | | **14** |

| 4th Year | SPRING | |
|---|---|---|
| Soc/Beh. Sc. | GE Elective | 3 |
| CHE 4240 | ChE Capstone Lab | 1 |
| CHE 4420 | Process Design II | 3 |
| CHE 4540 | Process Dyn. & Contr. | 3 |
| CHE 4661 | Transport in Bio. Processes | 3 |
| Hum/Fine Arts | GE Elective | 3 |
| **Total Credit Hours** | | **16** |

**NOTES:**

1. Programming must be MATLAB.
2. Fulfills UNIV 1020 requirement.
3. Students interested in the ChE Fast-Track MS program should apply by the end of their second junior term.

**General Education Core Electives**

*At least one literature course, selected from those marked with an asterisk (*) must be included.*

| Humanities and/or Fine Arts (9 hours) | | |
|---|---|---|
| ART 1030 | Art Appreciation | 3 |
| ENGL 2130* | American Literature | 3 |
| ENGL 2235* | Topics in British Literature | 3 |
| ENGL 2330* | World Literature | 3 |
| FREN 2510 | French Culture and Civilization | 3 |
| GERM 2520 | German Culture and Civilization | 3 |
| HIST 2210 | Early Western Civilization | 3 |
| HIST 2220 | Modern Western Civilization | 3 |
| HIST 2310 | Early World History | 3 |
| HIST 2320 | Modern World History | 3 |
| MUS 1030 | Music Appreciation | 3 |
| THEA 1030 | Introduction to Theater | 3 |
| PHIL 1030 | Introduction to Philosophy | 3 |
| SPAN 2510 | Spanish Culture and Civilization | 3 |
| SPAN 2550 | Latin American Culture and Civilization | 3 |

| Social/Behavioral Sciences (6 hours) | | |
|---|---|---|
| ANTH (SOC) | Introduction to Anthropology | 3 |
| ECON 2010 | Principles of Microeconomics | 3 |
| ECON 2020 | Principles of Macroeconomics | 3 |
| GEOG 1012 | Cultural Geography | 3 |
| POLS 1030 | American Government | 3 |
| PSY 1030 | Introduction to Psychology | 3 |
| SOC 1010 | Introduction to Sociology | 3 |
| GEOG 1130 | Geography of Natural Hazards | 3 |
| AGBE 2010 | World Food and Society | 3 |
| WGS 2010 | Intro to Women/Gender Studies | 3 |

Updated 9/2017

# BS in Chemical Engineering (ChE)

(students beginning at TTU during Spring 2018 or later)

| 1st Year | FALL | |
|---|---|---|
| ENGR 1120 | Programming[1] | 2 |
| MATH 1910 | Calculus I | 4 |
| CHEM 1110 | General Chemistry I | 4 |
| ENGL 1010 | Writing I | 3 |
| CHE 1010[2] | Intro. to Chemical Eng. | 1 |
| **Total Credit Hours** | | **14** |

| 1st Year | SPRING | |
|---|---|---|
| Hum/Fine Arts | GE Elective | 3 |
| MATH 1920 | Calculus 2 | 4 |
| CHEM 1120 | General Chemistry 2 | 4 |
| ENGL 1020 | Writing 2 | 3 |
| CHE 1020 | CHE Processes, Products & Ethics | 1 |
| **Total Credit Hours** | | **15** |

| 2nd Year | FALL | |
|---|---|---|
| CHE 2015 | Intro to Chem/Bio An-Scl I | 3 |
| MATH 2110 | Calculus 3 | 4 |
| PHYS 2110 | Physics I w/ Lab | 4 |
| Hum/Fine Arts | (Lit) ENGL 2130, 2230 or 2330 | 3 |
| Soc/Beh. Sc. | GE Elective | 3 |
| **Total Credit Hours** | | **17** |

| 2nd Year | SPRING | |
|---|---|---|
| CHE 2020 | Intro to Chem/Bio An-Scl II | 3 |
| CHE 3730 | ChE Operations | 3 |
| MATH 2120 | Differential Equations | 3 |
| PHYS 2120 | Physics II w/ Lab | 4 |
| COMM 2025 | Fundamentals of Communication | 3 |
| or PC 2500 | Communicating in the Profession | |
| **Total Credit Hours** | | **16** |

| 3rd Year[3] | FALL | |
|---|---|---|
| Hum/Fine Arts | GE Elective | 3 |
| CHEM 3010 | Organic Chemistry 1 | 4 |
| CHE 3010 | Thermo of Chemical Processes | 3 |
| CHE 3111 | TS1: Conduction, Radiation, Diff | 4 |
| XXX xxxx | Tech Elective[4] | 3 |
| **Total Credit Hours** | | **17** |

| 3rd Year[3] | SPRING | |
|---|---|---|
| CHEM 3020 | Organic Chemistry 2 | 4 |
| CHE 3021 | Separations/Solution Thermo | 4 |
| CHE 3121 | TS 2: Fluid Mechanics | 4 |
| XXX xxxx | Tech Elective[4] | 3 |
| Soc/Beh. Sc. | GE Elective | 3 |
| **Total Credit Hours** | | **18** |

| 4th Year | FALL | |
|---|---|---|
| CHEM 3510 | Physical Chemistry 1 | 4 |
| CHE 4131 | TS3: Diffusion & Mass Transfer | 4 |
| CHE 4210 | Chemical Reaction Engineering | 4 |
| CHE 4410 | Process Design I | 3 |
| **Total Credit Hours** | | **15** |

| 4th Year | SPRING | |
|---|---|---|
| CHEM 3520 | Physical Chemistry 2 | 4 |
| CHE 4240 | ChE Capstone Lab | 1 |
| CHE 4420 | Process Design II | 3 |
| CHE 4540 | Process Dyn. & Contr. | 3 |
| CHE 4xxx | ChE Tech. Elec.[5] | 3 |
| CHE 4xxx | ChE Tech. Elec.[5] | 3 |
| **Total Credit Hours** | | **17** |

**NOTES:**

1. ENGR 1120 must be MATLAB.
2. Fulfills UNIV 1020 requirement.
3. Students must apply to the ChE Fast-Track MS program by the end of their second junior term.
4. Six hours of Technical Elective can be from any of the following courses:
   a. Any College of Engineering course at the 3000 or 4000 level
   b. Any BIOL/CHEM/MATH/PHYS at the 3000 or 4000 level
   c. Any course with the prior approval of the ChE Undergraduate Program Coordinator
5. Six hours of ChE Technical Elective must come from two of the following courses:
   ChE 4245 – Clinical Immersion
   ChE 4330 – Polymers Engineering
   ChE 4335 – Fuel Cells
   ChE 4440 – Protein Engineering
   ChE 4661 – Transport in Biochemical & Biological Processes
   ChE 4990 – Intro to Research

**General Education Core Electives**

*At least one literature course, selected from those marked with an asterisk (*) must be included.*

| Humanities and/or Fine Arts (9 hours) | | |
|---|---|---|
| ART 1030 | Art Appreciation | 3 |
| ENGL 2130* | American Literature | 3 |
| ENGL 2235* | Topics in British Literature | 3 |
| ENGL 2330* | World Literature | 3 |
| FREN 2510 | French Culture and Civilization | 3 |
| GERM 2520 | German Culture and Civilization | 3 |
| HIST 2210 | Early Western Civilization | 3 |
| HIST 2220 | Modern Western Civilization | 3 |
| HIST 2310 | Early World History | 3 |
| HIST 2320 | Modern World History | 3 |
| MUS 1030 | Music Appreciation | 3 |
| THEA 1030 | Introduction to Theater | 3 |
| PHIL 1030 | Introduction to Philosophy | 3 |
| SPAN 2510 | Spanish Culture and Civilization | 3 |
| SPAN 2550 | Latin American Culture and Civilization | 3 |

| Social/Behavioral Sciences (6 hours) | | |
|---|---|---|
| ANTH (SOC) | Introduction to Anthropology | 3 |
| ECON 2010 | Principles of Microeconomics | 3 |
| ECON 2020 | Principles of Macroeconomics | 3 |
| GEOG 1012 | Cultural Geography | 3 |
| POLS 1030 | American Government | 3 |
| PSY 1030 | Introduction to Psychology | 3 |
| SOC 1010 | Introduction to Sociology | 3 |
| GEOG 1130 | Geography of Natural Hazards | 3 |
| AGBE 2010 | World Food and Society | 3 |
| WGS 2010 | Intro to Women/Gender Studies | 3 |

Updated 9/2017

# BS in Chemical Engineering (ChE) – *Bio-Molecular Engineering Concentration*

(students beginning at TTU during Spring 2018 or later)

| 1st Year | FALL | |
|---|---|---|
| MATH 1910 | Calculus I | 4 |
| CHEM 1110 | General Chemistry I | 4 |
| ENGL 1010 | Writing I | 3 |
| ENGR 1120 | Programming[1] | 2 |
| CHE 1010[2] | Intro. to Chemical Eng. | 1 |
| **Total Credit Hours** | | **14** |

| 1st Year | SPRING | |
|---|---|---|
| BIOL 1105 | Foundations of Biology w/Lab | 4 |
| MATH 1920 | Calculus 2 | 4 |
| CHEM 1120 | General Chemistry 2 | 4 |
| ENGL 1020 | Writing 2 | 3 |
| CHE 1020 | CHE Processes, Products & Ethics | 1 |
| **Total Credit Hours** | | **16** |

| 2nd Year | FALL | |
|---|---|---|
| CHE 2015 | Intro to Chem/Bio An-Scl I | 3 |
| MATH 2110 | Calculus 3 | 4 |
| PHYS 2109 | Calculus based Physics I | 3 |
| Hum/Fine Arts | GE Elective | 3 |
| Soc/Beh. Sc. | GE Elective | 3 |
| **Total Credit Hours** | | **16** |

| 2nd Year | SPRING | |
|---|---|---|
| CHE 2020 | Intro to Chem/Bio An-Scl II | 3 |
| MATH 2120 | Differential Equations | 3 |
| PHYS 2119 | Calculus based Physics 2 | 3 |
| CHE 3730 | ChE Operations | 3 |
| Hum/Fine Arts | (Lit) ENGL 2130, 2235 or 2330 | 3 |
| COMM 2025 | Fundamentals of Communication | 3 |
| or PC 2500 | Communicating in the Profession | |
| **Total Credit Hours** | | **18** |

| 3rd Year[3] | FALL | |
|---|---|---|
| BIOL 3200 or 3230 | Gen or Health Sci Microbiology | 4 |
| CHEM 3010 | Organic Chemistry 1 | 4 |
| CHE 3010 | Thermo of Chemical Processes | 3 |
| CHE 3111 | TS1: Conduction, Radiation, Diff | 4 |
| CHEM 3510 | Physical Chemistry 1 | 4 |
| **Total Credit Hours** | | **19** |

| 3rd Year[3] | SPRING | |
|---|---|---|
| CHEM 3020 | Organic Chemistry 2 | 4 |
| CHE 3021 | Separations/Solution Thermo | 4 |
| CHE 3121 | TS 2: Fluid Mechanics | 4 |
| BIOL 3140 | Cellular Biology | 4 |
| **Total Credit Hours** | | **16** |

| 4th Year | FALL | |
|---|---|---|
| CHEM 4610 | General Biochemistry | 3 |
| CHE 4131 | TS3: Diffusion & Mass Transfer | 4 |
| CHE 4210 | Chemical Reaction Engineering | 4 |
| CHE 4410 | Process Design I | 3 |
| **Total Credit Hours** | | **14** |

| 4th Year | SPRING | |
|---|---|---|
| Soc/Beh. Sc. | GE Elective | 3 |
| CHE 4240 | ChE Capstone Lab | 1 |
| CHE 4420 | Process Design II | 3 |
| CHE 4540 | Process Dyn. & Contr. | 3 |
| CHE 4661 | Transport in Bio. Processes | 3 |
| Hum/Fine Arts | GE Elective | 3 |
| **Total Credit Hours** | | **16** |

**NOTES:**

1. Programming must be MATLAB.
2. Fulfills UNIV 1020 requirement.
3. Students interested in the ChE Fast-Track MS program should apply by the end of their second junior term.

**General Education Core Electives**

*At least one literature course, selected from those marked with an asterisk (*) must be included.*

| Humanities and/or Fine Arts (9 hours) | | |
|---|---|---|
| ART 1030 | Art Appreciation | 3 |
| ENGL 2130* | American Literature | 3 |
| ENGL 2235* | Topics in British Literature | 3 |
| ENGL 2330* | World Literature | 3 |
| FREN 2510 | French Culture and Civilization | 3 |
| GERM 2520 | German Culture and Civilization | 3 |
| HIST 2210 | Early Western Civilization | 3 |
| HIST 2220 | Modern Western Civilization | 3 |
| HIST 2310 | Early World History | 3 |
| HIST 2320 | Modern World History | 3 |
| MUS 1030 | Music Appreciation | 3 |
| THEA 1030 | Introduction to Theater | 3 |
| PHIL 1030 | Introduction to Philosophy | 3 |
| SPAN 2510 | Spanish Culture and Civilization | 3 |
| SPAN 2550 | Latin American Culture and Civilization | 3 |

| Social/Behavioral Sciences (6 hours) | | |
|---|---|---|
| ANTH (SOC) | Introduction to Anthropology | 3 |
| ECON 2010 | Principles of Microeconomics | 3 |
| ECON 2020 | Principles of Macroeconomics | 3 |
| GEOG 1012 | Cultural Geography | 3 |
| POLS 1030 | American Government | 3 |
| PSY 1030 | Introduction to Psychology | 3 |
| SOC 1010 | Introduction to Sociology | 3 |
| GEOG 1130 | Geography of Natural Hazards | 3 |
| AGBE 2010 | World Food and Society | 3 |
| WGS 2010 | Intro to Women/Gender Studies | 3 |

Updated 9/2017

**Syllabus for CHE 4245 Clinical Immersion ~~at Disciplinary Interfaces~~**

**Instructors' names, office numbers, and phone numbers:**

Melissa J. Geist, Professor of Nursing
Bell Hall 329, 931-372-3203

Robby Sanders, Assistant Professor of Chemical Engineering
Prescott Hall 311, 931-372-3494

**Office hours:** By appointment

**Course Description:**

This course focuses on team-based identification of unmet medical needs and development of robust solutions. Select disease conditions will be discussed and technologies used to address those conditions will be examined. Students will participate in simulation lab and clinical immersion for experiential learning in hospitals, urgent care facilities, assisted living facilities, senior citizen centers, and/or other healthcare settings.

**Course discipline and title:**

NURS 4240/CHE ~~4973~~4245: Clinical Immersion at Disciplinary Interfaces

**Prerequisites:**

1. Nursing Students: NURS 3261, NURS 3271, or consent of the instructor
2. Engineering Students: Junior or Senior standing in chemical engineering or other engineering discipline, or consent of the instructor

**Texts:** Selected readings from current literature.

**List of objectives:**

1. Develop skills for effective cross-disciplinary collaboration
2. Explore methods of drug delivery (IV, IO, nebulized medications, central lines)
3. Propose solutions to achieve better patient outcomes
4. Explore the process of new technology/device design
5. Start to develop a plan with supporting team (E-Team) to move idea to commercialization

**Major teaching methods:**

Real-world immersion, lecture, group discussion, critical thinking activities, case presentations, simulation lab scenarios, post-clinical conference

**Grading and evaluation procedures:**

| Assignment | Percentage of total grade |
|---|---|
| **Teamwork contract** | **10%** |
| **Reflection/Debriefing** | **10%** |
| **Mid-semester presentation** | **20%** |
| **Professionalism and Engagement** | **20%** |
| **Final presentation (+ prototype/model)** | **40%** |

**Course Schedule:**

See posted schedule on the ilearn site

# TENNESSEE TECH UNIVERSITY

# DEPARTMENT OF CHEMICAL ENGINEERING

# CHE4335-001: FUEL CELLS

DATES: MONDAY AUGUST 28TH – THURSDAY DECEMBER 14TH
TIME: LECTURE 11:15AM-12:10 PM (MWF)
CLASSROOM: PRESCOTT HALL RM 215
NUMBER OF CREDIT HOURS: LECTURE 3 CR AND LAB 0 CR
SEMESTER: FALL 2017

## INSTRUCTOR INFORMATION

Instructor's Name: Dr. Cynthia Rice
Office: Prescott Hall Rm 448 (by scheduled appointment)
Telephone Number: **Don't call**
Email: *crice@tntech.edu*

OFFICE HOURS: M 12:15-1:15PM AND BY SCHEDULED APPOINTMENT

## COURSE INFORMATION

### PREREQUISITES

Prerequisite: CHE 3010, CHEM 3510, ME 3210). The lecture will start from electrochemical thermodynamics and kinetics basics for all types of fuel cells.

### TEXTS AND REFERENCES

Required:

***Text –*** *Fuel Cell Engines, M. Mench*

***Computer –*** *if asked in advance to bring laptop to Lecture*
*RULE – If we are not actively using the computer for class, it must be closed!*
*RULE – 2 or more students may not work on the same computer for an in class assignment and expect individual credit.*

***Calculator*** *– Only approved calculators to be used during Quizzes or Exams*
*Casio: All fx-115 models.*
*Hewlett Packard: The HP 33s and HP 35s models.*
*Texas Instruments: All TI-30X and TI-36X models.*

Resources:

- Fuel Cell Fundamentals, O'Hare *et. al.*, 2nd ed.

- Fuel Cell Systems Explained, 2nd Ed., J. Larminie and A. Dicks, Wiley, 2003
- Electrochemical Methods, 2nd Ed., A. Bard and L. Faulkner, Wiley, 2001
- Electrochemical impedance spectroscopy, M. Orazem and B. Tribollet, Wiley, 2008
- Handbook of Fuel Cells: Fundamentals, Technology, Applications, W. Vielstich, *et. al.*; Wiley, 2003 (Hint: in library)
- Fuel Cells: From Fundamentals to Applications, S. Srinivasan, Springer, 2006

## Course Description

Emphasis will be on electrochemical techniques, fundamental principles and technologies related to proton exchange membrane fuel cells. The course will delineate theoretical energy vs. specific losses: including ohmic, mass transport, and catalytic losses. Advanced materials for specific proton exchange membrane fuel cells will be discussed and diagnostic testing methodologies will be demonstrated (polarization curves, electrochemical impedance spectroscopy, and cyclic voltammetry).

## Course Objectives/Student Learning Outcomes

A unique feature of the course is the fact that 20 percent of the time will be spent in the laboratory using state of the art electrochemical instrumentation under the guidance of the course instructor.

## Major Teaching Methods

The teaching approach will be multifaceted, including—lectures, laboratory design/analysis, in class problem solving sessions, homework assignments, calculation based computer labs, self-directed study, and homework assignments. Active learning techniques will be used in this class. Class notes and handouts will be posted on iLearn.

## Special Instructional Platform/Materials

- iLearn – CHE 4973

## Topics to Be Covered

1. Fundamentals of electrochemical conversion devices
2. Basic electrochemistry—thermodynamics and kinetics
3. Major types of fuel cells
4. Theoretical energy vs. specific losses
5. Fundamentals of mass transport, diffusion and fluid mechanics
6. Fuel cell assembly and operation
7. Testing diagnostics
    a. Electrochemical impedance spectroscopy
    b. Cyclic voltammetry
    c. Fuel crossover
    d. Current interrupt/hydrogen pump

## Grading and Evaluation Procedures

Final grades will be based on a weighted average of scores earned on the quizzes and exams. The exams may include the material discussed in class lectures, projects/labs, homework, and

assigned readings. Quizzes and Exams may be resubmitted for up to a quarter of missed points one week after being returned. Homework may be resubmitted within a week for full credit, but only for those questions that were initially solved. Warning: if you 2 resubmissions that lack effort to correct, you will lose the right to resubmit. Dr. Rice is more lenient on precision of answer during actual quizzes and exams, but will not accept sharing slightly incorrect answers with peers for resubmissions (see academic misconduct statement). The weights are as follows:

| | |
|---|---|
| Quizzes (every 5 days) | 30% |
| 90 minute exams, (x3, top 2) | 30% |
| Final exam | 20% |
| Homework (Due before quiz) | 5% |
| Projects/Labs | 15% |
| Attendance | 0% |

### Grading Scale

| Letter Grade | Grade Range |
|---|---|
| A | 92-100 |
| B | 85-<92 |
| C | 78-<85 |
| D | 70-<78 |
| F | <70 and below |

## Course Policies

### Student Academic Misconduct Policy

Maintaining high standards of academic integrity in every class at Tennessee Tech is critical to the reputation of Tennessee Tech, its students, alumni, and the employers of Tennessee Tech graduates. The Student Academic Misconduct Policy describes the definitions of academic misconduct and policies and procedures for addressing Academic Misconduct at Tennessee Tech. For details, view the Tennessee Tech's Policy 217 – Student Academic Misconduct at Policy Central.

Homework – Is for your benefit. If the TA feels that multiple homework submissions are replicates or matching the instructors solution key (i) all students with replicated homework will receive a zero for the assignment, (ii) the student will make an appointment with Dr. Rice if they choose to object and individually demonstrate they understand how to complete the homework, (iii) if one of the students in the group is found to be unable to replicate their homework solutions all students in that group will receive a zero for the assignment.

### Attendance Policy

*Regular attendance and preparation for classes are essential for the high standards of performance expected of professional engineers. Please attend all lectures, be punctual, and ready to actively participate. Attendance is essential but as adults your grade is up to you…*

*Bottom-line: Don't skip class. If you have to miss class, let me know beforehand.*

### Class Participation

Statement of the obvious: You get out what you put in…

### Assignments and Related Policy

Homework will be given once per week and due prior to quiz. The quiz will be a problem form the homework – either exact or simplified.

Projects/Labs

1. Team size: 3 students (with Graduate Student as lead)
2. Build and assess performance of a PEMFC as a function of cell temperature, relative humidity, or reactant concentration
    a. Electrochemical Surface Area
    b. Proton conductivity
    c. Charge transfer resistance
    d. Tafel Kinetics
3. Prelab report
4. Class presentation
    a. Must compare to literature values
5. Final lab report
    a. Must compare to literature values

### Fall TERM

- Start: Monday August 28th
- Dr. Rice is on Travel October 2nd – 5th
- Last day of class: Friday December 8th
- End: Thursday December 14th
- Exams tentative dates
    1. October 6th Friday
    2. November 8th Wednesday
    3. December 6th Wednesday

### Disability Accommodation

Students with a disability requiring accommodations should contact the Office of Disability Services (ODS). An Accommodation Request (AR) should be completed as soon as possible, preferably by the end of the first week of the course. The ODS is located in the Roaden University Center, Room 112; phone 372-6119. For details, view the Tennessee Tech's Policy 340 – Services for Students with Disabilities at Policy Central.

# CHE 4440: Protein Engineering

Summer 2017

Students will apply principles of molecular biology and protein engineering to improve the properties of a selected protein. Computational tools and experimental methods will be applied to mutate and enhance the characteristics of proteins, which will hopefully lead to publishable results. Students will have to think about the subject creatively and use more than just knowledge from a textbook to solve the challenges encountered in the course.

**Location:** Lecture: PH 203; Lab PH 401/447
**Time:** T/Th: 12:30-3:00pm

**Instructor:** Dr. Robby Sanders (RSanders@tntech.edu)

**TA's:** Nastasia Allred (anallred42@students.tntech.edu)
Samantha Blanton (smblanton42@students.tntech.edu)
Bryan Materi (bemateri21@students.tntech.edu)

**Text:** The text will be journal articles in the form of PDFs and other online material. The material will be printed out by students if desired. There will also be freely available software to download for DNA and protein analysis.

**Office Hours:** Contact TA's or instructor by email to schedule an appointment.

**Prerequisites:** Biochemistry and Cell & Molecular Biology are encouraged but not required.

**Attendance Policy:** Don't skip class. This is a lab-based course and missing classes will cause you to be very behind. Due to the nature of the experiments, labs are not able to be made up as each week builds on the previous. If you HAVE to miss, let one of the TA's know in advance.

**Plagiarism:** I encourage you to work in groups, but do not copy someone else's work or the work of any external sources.

**Grading Policy:**

- Attendance/Participation--40%
- Lab notebook and Course work binder*--40%
- Assignments/"pop quizzes"--10%
- Final Exam/Lab Practical--10%

*Course work binder, or PC Binder (PCB), should contain all "dirty notes" from lectures and labs, "clean notes," and sections for handouts, articles, and assignments. This will be discussed in class.

**Initial Grading Scale:**

- 100 – 90 A
- 89 – 80 B
- 79 – 70 C
- 69 – 60 D
- < 60 F

**Educational Instructional Objectives:** Using modern molecular biological techniques to engineer proteins to enhance and modify their properties is a rapidly growing field. This course will give a generalized overview of the molecular biological methods, recombinant DNA techniques, computations packages, and practical applications for protein engineering.

This will be a lecture-based and laboratory-based course that utilizes modern methods of molecular biology to engineer proteins. The engineering of proteins can have therapeutic, energy, or material applications for the next generation of bioengineering technologies. This course will use software packages to model proteins and design genes for the production of engineered proteins in bacterial or mammalian cell hosts. Students will learn the necessary molecular biological techniques required to create the DNA constructs and express proteins in host organisms. This course will give a generalized overview of the molecular biological methods, recombinant DNA techniques, computational packages, and practical applications for protein engineering. The course will be geared to laboratory experimentation and weekly updates of group projects. There will also be extensive discussions of research efforts in the various fields of protein engineering. There will also be journal article review and class presentations and discussions of research efforts in the various fields of protein engineering.

**Special Needs:** Students with a disability requiring accommodations should contact the Office of Disability Services (ODS). An Accommodation Request (AR) should be completed as soon as possible, preferably by the end of the first week of the course. The ODS is located in the Roaden University Center, Room 112; phone 372-6119.

**Course Timeline and Objectives:**

| Week | Lecture | Lab | Assignment |
|---|---|---|---|
| 1 | Course intro<br>Review syllabus | Lab safety overview | Complete lab safety quizzes |
| 2 | Pre-course quiz | Site-specific training<br>Lab tour and pick groups<br>Micropipette Activity | Download software |
| 3 | Terminology intro*<br>Intro to primer design | Intro to GFP<br>Swiss PDB<br>GFP primers<br>DNA 2.0 Intro | Look up steps in PCR<br>DNA 2.0 primer assignment<br>Arabinose operator & His-tag |
| 4 | Review primer assignment<br>Review PCR steps | PCR #1<br>(lecture on gel electroph.)<br>Gel electroph. of PCR #1<br>Excise bands | Write gel electroph. protocol |
| 5 | PCR activity | Gel DNA Recovery<br>PCR#2 | TBA |
| 6 | PCR activity #2 | Gel electroph on PCR#2<br>Gel Recovery<br>PCR#3 | Write gel recovery protocol<br>Groups to run gel & recover |
| 7 | SfiI Digestion lecture<br>Make CM/ara plates if time<br>(Lab=SfiI Digestion) | DNA Ligation<br>(while running, lecture on it)<br>Transformation & plating | Write ligation protocol<br>Write digestion protocol<br>Write transformation protocol |
| 8 | Review of steps<br>Isolate colonies and inoculate | Miniprep one tube<br>Pellet induced sample | Look up affin. chromatography<br>Look up sonication, protein pur. |

| | | | |
|---|---|---|---|
| 9 | Lecture affinity chromatography<br>Sonication, protein purification<br><br>Run Protein Gel<br>Lecture: SDS PAGE & Bradford | Lyse Cells<br>Protein Purification<br>Analyze Sequences<br>Bradford Assay<br>Review | Look up Bradford Assay and SDS PAGE<br>Sequence Alignment Assignment<br>Study for Final and Lab Practical |
| 10 | Final Exam | Lab Practical | |

* Different DNA bases and pairs, codons, vectors and plasmids, amino acids, origin of replication, regulatory elements (lac operon, arabinose operon), PCR, primers, purification methods (tags)
** Activity using paper, etc. to go through PCR steps and amplifications
*** Opportunity to quantify their efficiency of miniprepping

**Tennessee Tech University Student Email Policy**
The University sends official communications to all Tennessee Tech email addresses. All students receive a @students.tntech.edu email address. This address will receive notices about schedules, grade results, billing information, emergency alerts, important deadlines, a daily email newsletter, and all other official university information. It is your responsibility to read and manage this email. See: https://www.tntech.edu/its/emailinfo/studentemail

Please add TA and instructor emails, to your approved recipients list to ensure you will receive any correspondence regarding this course. Please note the instructor and TA's of this course are not responsible for missed email communication directed to your spam folder.

**TTU Attendance Policy: http://www.tntech.edu/learningsupport/attendance/**
The TTU Academic Development Program Faculty recognizes the necessity of regular classroom/workshop/lab engagement [attendance] as a basic cornerstone of the learning process. Attendance is required and expected by each instructor.

A student is expected to attend each meeting of every class/workshop/lab for which he/she has a requirement. Tardiness (absence for any portion of a period) or lack of preparation may be recorded as an absence. Each instructor is responsible for explaining, in writing at the beginning of each course, the practice in treatment of absence/tardiness. Regular attendance is a definite part of the total performance required for the satisfactory completion of any course, and an unsatisfactory attendance record may adversely affect the final grade. After five (5) absences, the instructor has the prerogative to assign the student a grade of "F" for the semester. University attendance policy [TTU Undergraduate Catalog] does not recognize excused absences or excused tardiness.

It is the STUDENT'S RESPONSIBILITY, not the instructor's nor the TA's, to ask about work missed due to absence or tardiness. Coursework not turned in on time due to absence or tardiness may be refused by the instructor. If late work is accepted, it will usually receive a 10% grade reduction per class meeting late, unless arrangements have been made with the instructor ahead of time. Remember: Non-attendance, poor attendance, or withdrawal may seriously affect lottery scholarship/financial aid.

**TTU Policy on Academic Dishonesty**
**http://www.tntech.edu/facultyhandbook/misconductpolicy/**
"The first principle upon which this policy stands is that plagiarism, cheating, and other forms of academic dishonesty undermine the integrity of the academic process, and cannot be tolerated in an institution of higher learning. The classroom instructor, by virtue of the University's decision to hire him/her in an instructional capacity, is assumed to be an ethical person dedicated to the maintenance of high professional standards. Consequently, the

instructor has the primary responsibility for control over classroom behavior, maintenance of academic integrity, and assignment of academic grades. The student has the right to just and equitable enforcement of all academic policies and standards, and to appeal a decision which he/she has evidence to indicate was erroneous. Because the instructor is the person with primary responsibility for such matters, the student's first recourse must be to the instructor concerned, but in cases where a satisfactory resolution cannot be achieved at that level, the student has the right to appeal to a College Academic Misconduct Committee. It must be understood by all parties concerned, however, that in doing so, the student assumes the responsibility of submitting to that committee mitigating evidence which supports the contention of an erroneous act on the part of the instructor, and is not merely contesting the instructor's original decision."

**TTU Disability Policy: http://www.tntech.edu/disability/home/**

"No person with a disability will be discriminated against on the basis of his or her disability as defined in Section 504 of the Rehabilitation Act of 1973 and redefined in Public Law 101336, the Americans with Disabilities Act (ADA) of 1990. The ADA requires institutions of higher learning to make reasonable accommodations for the needs of qualified students with disabilities as they pursue a postsecondary education. Tennessee Technological University, being committed to high academic standards and the development of self-esteem and dignity in all members of the academic community, will provide reasonable accommodations to assist the student with disabilities in participating in university programs."

Manufacturing & Engineering Technology

TENNESSEE TECH

# Memorandum

**To:** University Curriculum Committee

**VIA:** Engineering Curriculum Committee

**From:** Ahmed H. ElSawy, Professor and Chairperson (approved by the MET faculty on 9/6/2017)
Department of Manufacturing and Engineering Technology

**Date:** Tuesday, September 05, 2017

**Re:** MET curriculum changes

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

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## 1. Course Additions, Deletions and Changes

### a. Addition

None

### b. Deletion

None

c. Changes

From: MET 4000 - Advanced Foundry Technology Lec. 2. Lab. 2. Credit 3.
Prerequisite: MET 3000. Study of advanced foundry processes, gating system design, die/pattern design and mechanization of foundry. Students enrolled in the 5000-level course will be required to complete additional work as stated in the syllabus.

To: MET 4000 (5000) - Advanced Foundry Technology Lec. 2. Lab. 2. Credit 3.
Prerequisite: MET 3000. Study of advanced foundry processes, gating system design, die/pattern design and mechanization of foundry. Students enrolled in the 5000-level course will be required to complete additional work as stated in the syllabus.

**Justification**: Sand testing lab and Effective Casting Simulation (SolidCast, FlowCast and OptiCast) were added to increase the rigor of this class to meet the 5000 level.

**2.** Curriculum Changes

a. To adopt to the shift in the manufacturing job market and streamline the transfer from other community colleges, the MET department request the approval of the following changes:

1. Change the title of "Emphasis I: Mechatronics Engineering Technology" to "**Concentration I: Mechatronics Engineering Technology**".

2. Change the title of "Emphasis II: Engineering Technology Management" to "**Concentration II: Engineering Technology Management**"

3. Change MET 3260-Industrial Electronics (2 cr.hr.) to a required course for Concentration I ONLY.

4. Delete MET 4010 from Concentration II

5. Increase the BS in Engineering Technology to 123 credit hour instead of 120 cr.hr.

**Justifications:**

The mechatronics engineering technology and engineering technology management are in great demand by industry nowadays. Changing from Emphasis I & II to *Concentrations I & II* will appear on the students' transcript and will make them more marketable and competitive in the manufacturing industry job market.

The increase of the major credit hours are required because we added more skills needed to meet the needs of Manufacturing Industry in concentrations I & II for industrial automation/mechatronics and to stream line transfer from community colleges. Other ETAC of ABET Tennessee Accredited programs are having credit hours varies from 123/124 in Austin Peay, 124 in MTSU and 128 cr.hr. in ETSU.

**3. Financial Impact:**

No additional resources are needed

**4. Effective Date**:

Pending the approvals of TTU Board of Trustees and THEC

# Curriculum

## Freshman Year

- CHEM 1010 - Introductory Chemistry I Credit: 4. or
- CHEM 1110 - General Chemistry I Credit: 4.
- ENGL 1010 - English Composition I Credit: 3.
- ENGL 1020 - English Composition II Credit: 3.
- MATH 1730 - Pre-calculus Mathematics Credit: 5.
- Humanities/Fine Arts Electives Credit: 6.
- MATH 1845 - Technical Calculus Credit: 3.
- MET 1100 - Introduction to Manufacturing Engineering Technology Credit: 2.
- ENGR 1020 - Connections to Engineering and Technology Credit: 1. [1]
- ENGR 1110 - Engineering Graphics Credit: 2.

**Total: 29**

## Sophomore Year

- ECON 2010 - Principles of Microeconomics Credit: 3. or
- ECON 2020 - Principles of Macroeconomics 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.

- HIST 2010 - Early United States History Credit: 3.
- HIST 2020 - Modern United States History Credit: 3.

- PHYS 2010 - Algebra-based Physics I Credit: 4. or
- PHYS 2110 - Calculus-based Physics I Credit: 4.
- PHYS 2020 - Algebra-based Physics II Credit: 4. or
- PHYS 2120 - Calculus-based Physics II Credit: 4.

- CSC 1300 - Introduction to Problem Solving and Computer Programming Credit: 4.

- MET 2000 - Occupational Safety Credit: 2.
- MET 2065 - Metal Manufacturing Technology Credit: 2.
- MET 2310 - Applied Fluid Power Credit: 2.
- MET 2400 - Statics and Strength of Materials Credit: 3.

**Total: 33**

# Junior Year

- PC 2500 - Communicating in the Professions Credit: 3. or
- COMM 2025 - Fundamentals of Communication Credit: 3.

- ACCT 3720 - Survey of Accounting Credit: 3.
- BMGT 3510 - Management and Organization Behavior Credit: 3.
- ECON 3610 - Business Statistics I Credit: 3.

- ME 3010 - Materials and Processes in Manufacturing Credit: 3. or
- MET 3100 - Applied Physical Metallurgy Credit: 3. or
- ME 3110 - Physical Metallurgy and Heat Treatment Credit: 3.

- MET 3000 - Principles of Metal Casting Credit: 2.
- MET 3200 - Applied Electricity and Electronics Credit: 3.
- MET 3301 - CAD for Technology Credit: 2.
- MET 3403 - Applied Machine Elements Credit: 3.
- MET 3700 - Manufacturing Cost Estimating Credit: 2.
- MET 3710 - Methods Design and Work Measurement Credit: 2.

**Total: 29**

# Senior Year

- PSY 1030 - Introduction to Psychology Credit: 3.
- Business Elective Credit: 3. ~~3~~ 2
- DS 3520 - Operations Management Credit: 3.
- MET 3150 - Maintenance Technology I Credit: 2.
- ~~MET 3260 - Industrial Electronics Credit: 2.~~ (move MET 3260 to Concentration I)
- MET 4310 (5310) - Plant Layout and Materials Handling Credit: 3.
- MET 4615 - Engineering Technology Ethics and Professionalism Credit: 1.
- MET 4620 - Senior Projects Credit: 3.

- **Area of Concentration Credit**: 15. 4 3

**Total: ~~28~~ 33**

# Note:

1 This course not included in **123** - hour curriculum.

2 Business Electives: **BMGT 3630**, **BMGT 4520 (5520)**, **DS 3620**, **DS 3540**, **FIN 3210**, **LAW 3810** or **MKT 3400**.

3 Select one of the following concentrations (15 credits):

~~Emphasis~~ Concentration I - Mechatronics Engineering Technology

**MET 3060**, **MET 3260**, **ECE 3270**, **MET 4250 (5250)** and select one course from:

**MET 3080**, **MET 3460**, **MET 4000 (5000)**, **MET 4060 (5060)**, **MET 4210 (5210)**, **MET 4220 (5220)**, **MET 4300 (5300)**, **MET 4400 (5400)**, **MET 4450 (5450)**, **MET 4500 (5500)**, **MET 4550 (5550)**, **MET 4600 (5600)**, **MET 4650 (5650)**, **MET 4700**, **MET 4990 (5990)**, **ESS 3710**.

~~Emphasis~~ Concentration II - Engineering Technology Management

Select five courses from: **BMGT 3600**, **BMGT 3630**, **BMGT 4520 (5520)**, **DS 3620**, **DS 3540**, **FIN 3210**, **LAW 3810**, **BMGT 4930 (5930)**, ~~**MET 4010**~~, **MET 4430 (5430)**, **MKT 3400**, **PSY 3400**.

TENNESSEE TECH UNIVERSITY

**School of Environmental Studies**
Box 5152 • Cookeville, TN 38505-0001 • (931) 372-6246 • Fax (931) 372-6346

**TO:** University Curriculum Committee
**VIA:** General Education Curriculum Committee
**VIA:** College of Interdisciplinary Studies Curriculum Committee
**FROM:** Dr. Hayden Mattingly, Interim Director, School of Environmental Studies H.T. Mattingly
**DATE:** February 8, 2017
**RE:** Course Addition to Gen Ed Curriculum – School of Environmental Studies

**Course Change:** Addition to General Education Curriculum, Social and Behavioral Sciences

> **ESS 1100. Introduction to Environmental Studies. Lec. 3. Credit 3.** Prerequisites: None
> Course Description: This course provides a general introduction to the field of environmental studies. Environmental issues are often complex, involving interconnections among people, societies, ecosystems and the biosphere. The interdisciplinary nature of environmental studies requires an understanding of diverse areas of study. Students will explore a variety of environmental concerns, engaging them via particular case studies and topical overviews, using an evaluative lens to consider the possible human causes of these environmental problems and the potential societal solutions to them.

Justification: An interdisciplinary understanding of environmental issues is a valuable tool in the schema of not just scientists and academics but all citizens. The course "Introduction to Environmental Studies" (ESS 1100) has been offered successfully for four years as a component of the Environmental and Sustainability Studies curriculum. Because of the importance of a broad-based understanding of environmental problems and the societal behaviors that have produced them, as well as the growing interest in environmental issues, this course should be a welcome addition to the general education social and behavioral science curriculum at TTU.

Effective Date: FALL 2017

Comparable Course Approved for Social and Behavioral Sciences

UT Martin offers one natural resource course within the social and behavioral science section of the general education curriculum.

> Natural Resources Management 101 – Wildlife, Conservation, and Environmental Issues (3)
> Course Description: This course is intended for students who are interested in wildlife and conservation issues. Includes a review of wildlife and resource history and a survey of current resources at global, national and regional scales. Issues will be discussed including biological diversity and endangered species, pollution and habitat loss, values of natural resources to humans and human philosophies and perspectives on conservation.

*When proposing a new course for General Education credit: (1) Identify the relevant outcomes, (2) briefly explain how each will be addressed in the course, (3) attach to the course proposal.*

**ESS 1100**
**Introduction to Environmental Studies**
**(Social and Behavioral Science Core)**

Four or more of the learning outcomes must be met for any course(s) in this category.

1. **Recognize, describe, and explain social institutions, structures, and processes and the complexities of a global culture and diverse society.**
   Relevant Objective:

   - Consider the historical, cultural, economic, and political structures and processes that have contributed to environmental problems.

   Environmental problems and their solutions are complex, often global in nature, involving an understanding of basic societal structures and norms. Students will explore these connections.

2. **Think critically about how individuals are influenced by political, geographic, economic, cultural, and family institutions in their own and other diverse cultures and explain how one's own belief system may differ from others.**
   Relevant Objective:

   - See and appreciate the connections among biotic and abiotic systems, human institutions and personal behavior.

   Individuals are not islands. They are strongly influenced by societal norms and mores. Students will explore various philosophical and cultural relationships between humans and the natural world.

3. **Explore the relationship between the individual and society as it affects the personal behavior, social development and quality of life of the individual, the family and the community.**
   Relevant Objectives:

   - Evaluate the environmental impact of governmental policies, everyday actions, and personal choices.
   - Grapple with concepts of sustainability as it relates to humans and natural resources.

   Through various environmental readings and subsequent deliberations, students will consider the interplay between individual and society and environmental quality, and the ways in which environmental problems affect quality of life issues.

4. **Examine the impact of behavioral and social scientific research on major contemporary issues and their disciplines' effects on individuals and society.**
   Relevant Objectives:

- Recognize the complex nature of environmental problems and the conflict that is often inherent.
- Describe the structure and function of significant environmental systems and the effects human societies have had on them.

Students will explore research on societal causes of environmental problems.

5. **Using the most appropriate principles, methods, and technologies, perceptively and objectively gather, analyze, and present social and behavioral science research data, draw logical conclusions, and apply those conclusions to one's life and society.**
   Relevant Objectives:

   - Analyze the cause(s) and scope of environmental problems.
   - Find, analyze, and critique information about environmental issues.
   - Synthesize environmental and ecological concepts to evaluate environmental problems.

   Students will analyze case studies about various contemporary environmental issues, draw conclusions, and share their observations with classmates. They will learn to incorporate these conclusions into their own environmental ethic.

6. **Take ethical stands based on appropriate research in the social and behavioral sciences.**
   Relevant Objectives:

   - Articulate their own environmental values and ethic.
   - Develop behaviors as consumers and citizens in keeping with their personal environmental ethos.

   Being able to articulate and live out a personal environmental ethic is a vital element in the development of a twenty-first century citizen. Students will learn the importance of not only articulating an ethic but allowing it to direct their daily behavior.

7. **Analyze and communicate the values and processes that are used to formulate theories regarding the social context of individual human behavior in the social and behavioral sciences.**
   Relevant Objective:

   - Define environmental issues by incorporating knowledge from various interrelated disciplines.

   Students will learn to evaluate environmental issues in their socio-cultural context and formulate novel ideas of how to address the issues

ESS 1100: Introduction to Environmental Studies
Student Assignment and Learning Objective Matrix
General Education Curriculum, Social/Behavioral Science

| Assignments | ESS 1100* Student Learning Objectives (See page 4) | Gen Ed Soc/Beh** Student Learning Outcomes (See page 4) |
|---|---|---|
| **Essential Environment** (Withgott) | | |
| Ch. 1 | | |
| Our Island: Earth | b, d, e | 1, 2, 6 |
| The Nature of Environmental Science | b, e, f | |
| Environmental Ethics | k, e, f, j | |
| Sustainability and Our Future | h, d, e, f, h, l | |
| | | |
| Ch. 2 | | |
| Earth's Environmental Systems | a, b, e | 3 |
| Ecosystems | a, b | |
| Biogeochemical Cycles | a, b, l | |
| | | |
| Ch. 3 | | |
| Conserving Biodiversity | b, c, d, e, f, l | 2, 6 |
| | | |
| Ch. 4 | | |
| Ecological Communities | a, e | 2 |
| Earth's Biomes | a, j, l | |
| | | |
| Ch. 5 | | |
| Economics and the Environment | b, d, f, j | 2, 6, 7 |
| Environmental Policy | b, d, f, j | |
| Approaches to Environmental Policy | b, j, f, h, l | |
| | | |
| Ch. 6 | | |
| Demography | d, f | 2, 3, 7 |
| Population and Society | b, c, f, l | |
| | | |
| Ch. 7 | | |
| Maintaining Healthy Soils | a, b, c, d, e, f | 1, 2 |
| Watering and Fertilizing Crops | a, b, c, d, f | |
| Controlling Pests | a, b, c, d, f | |
| Growth of Sustainable Agriculture | a, b, e, h, l | |
| | | |
| Ch. 8 | | |
| Benefits of Biodiversity | a, d | 2, 6, 7 |
| Conservation Biology: The Search for Solutions | b, e, h, l | |
| | | |
| Ch. 9 | | |
| Forest Loss | a, b, c, d, e, f, h | 1, 2, 6 |
| Parks and Protected Areas | e, h, l | |
| | | |
| Ch. 10 | | |
| Environmental Health | b, c, d, e | 3, 2 |
| Toxic Substances | b, c, d, e, f, l | |

ESS 1100: Introduction to Environmental Studies
Student Assignment and Learning Objective Matrix
General Education Curriculum, Social/Behavioral Science

| Reading Assignments | ESS 1100* Student Learning Objectives | Gen Ed Soc/Beh** Student Learning Outcomes |
|---|---|---|
| Ch. 11 | | |
| Toward Sustainable Mineral Use | a, c, d, e, h, l | 3 |
| | | |
| Ch. 12 | | |
| Effects of Human Activities on Waterways | a, c, d, e, f | 1, 2, 3 |
| Solutions to Depletion of Fresh Water | b, c, d, e, f, h, l | |
| | | |
| Ch. 13 | | |
| Ozone Depletion | a, b, c, d, e, f | 2 |
| Addressing Acid Deposition | a, b, c, d, e, f, l | |
| | | |
| Ch. 14 | | |
| Responding to Climate Change | a, b, c, d, e, f, h, l | 1, 2, 3 |
| | | |
| Ch. 15 | | |
| Reaching Further for Fossil Fuels … and Coping with the Impacts | a, b, c, d, e, f, h, l | 1, 2, 3, 6, |
| Energy Efficiency and Conservation | | |
| | | |
| Ch. 16 | | |
| Renewable Energy Sources | b, e, f, h, l | 3 |
| | | |
| Ch. 17 | | |
| Managing Our Waste | a, b, c, d, e, f, h, l | 2, 3 |
| | | |
| Ch. 18 | | |
| Creating Livable Cities | a, b, d, g, h, l | 1, 2, 3, 7 |
| | | |
| **Environment: An Interdisciplinary Anthology** (Adelson) | | |
| The Birth of Conservation, p.13 | d | 2 |
| Paradox of Sustainable Development, p.138 | h | |
| And No Birds Sing, p.541 | c | 2, 3, 6 |
| Exotic Introductions, p.70 | e | |
| Ivory-Billed Woodpecker, p.63 | e | |
| What is Conservation Biology? p.391 | h | |
| Human Domination of Earth's Ecosystems, p.365 | a, e | 6 |
| The Problem of the Wilderness, p.288 | e | 2 |
| Americans and their Forests, p.174 | d, h | |
| Globalization (and) the Poor, p.274 | c, d, h | 1, 2 |
| Fundamental Concept of Soil, p.415 | a, c | |
| Developmentalist Myths in Agriculture, p.434 | f, h | |
| Water Supply, p.486 | c, h | 3 |
| Industrial Growth, Air Pollution, and Environmental Damage: Complex Challenges for China, p.518 | c, h | 1, 6 |

ESS 1100: Introduction to Environmental Studies
Student Assignment and Learning Objective Matrix
General Education Curriculum, Social/Behavioral Science

| Reading Assignments | ESS 1100* Student Learning Objectives | Gen Ed Soc/Beh** Student Learning Outcomes |
|---|---|---|
| The Ozone Hole: A Cautionary Tale, p.468 | g | 1, 2, 4 |
| Ending the Energy Stalemate, p.497 | J | |
| The Greenhouse Effect, p.22 | e, g | |
| Modern Global Climate Change, p.25 | c, j | |
| Economics of Sustainable Development, p.777 | d, h | 3 |
| Green Markets, p.787 | e, j | 3 |
| Valuation of Ecosystem Services and Natural Capital, p.798 | a, d | 2 |
| An Essay on the Principle of Population, p.808 | f, h | 3 |
| How Many People Can the Earth Support?, p.827 | f, h | |
| London, p.313 | d | 2, 3 |
| Cadillac Desert, p.342 | e | |
| Calcutta in the Twentieth Century, p.329 | h | |
| The City of Joy, p.326 | h | |
| | | |
| **Case Studies** | | |
| The Vanishing Oysters of the Chesapeake Bay | a, g, h, i | 1, 2, 3 |
| Zebra Mussels Invade the Great Lakes | a, g, i | 1, 5 |
| Certified Sustainable Paper in Your Textbook | a, g, h, i | 3 |
| Mining for … Cell Phones? | a, g, h, i | 1 |
| Clearing the Air in L.A. and in Mexico City | a, g, h, i | 1 |
| Rising Seas May Flood the Maldives | a, g, h, i | 1 |
| China's One-Child Policy: Is It a Population "Time Bomb"? | g, h, i | 1, 2 |
| Will We Slice Through the Serengeti? | a, g, i | 2, 3 |
| Farm to Table – And Back Again: The Commons at Kennesaw State University | h, i | 2 |
| Germany Goes Solar | h, i | 2, 3 |
| Bisphenol A is Everywhere – But Is It Safe? | b, i | 3 |
| Starving the Louisiana Coast | a, g, i | 3 |
| Costa Rica Values Its Ecosystem Services | a, e, h, i | 3 |
| Managing Growth in Portland, Oregon | h, i | 3 |

**Special Note:**

Each week we will focus on personal and societal behaviors that affect the environment, positively and negatively. Students will be challenged to consider all the information they have gathered, weigh the issues, and come to some conclusion about how they can contribute to environmental sustainability. They also will be encouraged to commit to doing so.

We will only touch on agricultural issues one week during the semester. We will not focus on global food production but will specifically focus on issues related to agriculture and the environment.

As we conclude each topic during the semester, we will relate it back to environmental viability and sustainability.

ESS 1100: Introduction to Environmental Studies
Student Assignment and Learning Objective Matrix
General Education Curriculum, Social/Behavioral Science

***ESS 1100 Student Learning Objectives**

Upon completion of this course, successful students will be able to:

a. Describe the structure and function of environmental systems and the effects human societies have had on them.
b. Define environmental issues by incorporating knowledge from various interrelated disciplines.
c. Analyze the cause(s) and scope of environmental problems.
d. Consider the historical, cultural, economic, and political structures and processes that have contributed to environmental problems.
e. Identify the connections among abiotic and biotic systems, human institutions and personal behavior.
f. Recognize the complex nature of environmental problems and the conflict that is often inherent.
g. Synthesize environmental and ecological concepts to evaluate environmental problems.
h. Grapple with concepts of sustainability as they relate to humans and natural resources.
i. Find, analyze, and critique information about environmental issues.
j. Evaluate the environmental impact of governmental policies, everyday actions, and personal choices.
k. Articulate their own environmental values and ethic.
l. Develop behaviors as consumers and citizens in keeping with their personal environmental ethos.

****General Education Social and Behavioral Science Learning Outcomes**

1. Recognize, describe, and explain social institutions, structures, and processes and the complexities of a global culture and diverse society.
2. Think critically about how individuals are influenced by political, geographic, economic, cultural, and family institutions in their own and other diverse cultures and explain how one's own belief system may differ from others.
3. Explore the relationship between the individual and society as it affects the personal behavior, social development and quality of life of the individual, the family and the community.
4. Examine the impact of behavioral and social scientific research on major contemporary issues and their disciplines' effects on individuals and society.
5. Using the most appropriate principles, methods, and technologies, perceptively and objectively gather, analyze, and present social and behavioral science research data, draw logical conclusions, and apply those conclusions to one's life and society.
6. Take ethical stands based on appropriate research in the social and behavioral sciences.
7. Analyze and communicate the values and processes that are used to formulate theories regarding the social context of individual human behavior in the social and behavioral sciences.

**Memorandum**

**To:** University Curriculum Committee
**From:** Kurt Eisen, Chair, General Education Committee
**Date:** September 12, 2017
**Subject:** Change in General Education course description identifier phrasing

I. Course Description Change:

The TTU General Education Committee has approved the following change in the catalog descriptions for all courses (see list attached) in the TTU general education core:

From:

"Meets Tennessee Technological University and Tennessee Board of Regents minimum degree requirements."

To:

"Meets Tennessee Technological University general education requirement (*category*)."

Example:

From:

SOC 1010 - Introduction to Sociology
Lec. 3. Credit 3.
Fundamental concepts and basic principles underlying human social relations.
◆ Meets Tennessee Technological University and Tennessee Board of Regents minimum degree requirements. (SOCI 1010, TTP Course)

To:

SOC 1010 - Introduction to Sociology
Lec. 3. Credit 3.
Fundamental concepts and basic principles underlying human social relations.
◆ Meets Tennessee Technological University general education requirements (Social/Behavioral Sciences) (SOCI 1010, TTP Course)

**Justification:**

The change deletes the reference to TBR, which no longer governs the TTU general education program or approves TTU degree requirements. Also, it will help students and advisors to state in the course description that a particular course fulfills the general education requirement in a specific category. The change does not affect the description of the course itself, and therefore should not require separate approval of each department and college offering these courses.

**Effective:** As soon as permitted or practicable.

**Communication**

**A. English composition**
"Meets Tennessee Technological University general education requirement (Communication/English Composition)."
ENGL 1010 - English Composition I
ENGL 1020 - English Composition II

**B. English oral presentational communication**
"Meets Tennessee Technological University general education requirement (Communication/Oral Presentation)."
COMM 2025 - Fundamentals of Communication
PC 2500 - Communicating in the Professions

**History**

"Meets Tennessee Technological University general education requirement (History)."

HIST 2010 - Early United States History
HIST 2020 - Modern United States History

**Humanities/Fine Arts**

"Meets Tennessee Technological University general education requirement (Humanities/Fine Arts)."

ART 1030 - Art Appreciation
ENGL 2130 - Topics in American Literature
ENGL 2235 - Topics in British Literature
ENGL 2330 - Topics in World Literature
FLST 2520 (3520) - The Cultures and Peoples of North Africa
FREN 2510 - French Culture and Civilization
GERM 2520 - German Culture and Civilization
HIST 2210 - Early Western Civilization
HIST 2220 - Modern Western Civilization
HIST 2310 - Early World History
HIST 2320 - Modern World History
HIST 1310 - Science and World Cultures
MUS 1030 - Music Appreciation
PHIL 1030 - Introduction to Philosophy
RELS 2010 - Introduction to Religious Studies
SPAN 2510 - Spanish Culture and Civilization
SPAN 2550 - Latin American Culture and Civilization
THEA 1030 - Introduction to Theatre

**Mathematics**

"Meets Tennessee Technological University general education requirement (Mathematics)."

MATH 1010 - Math for General Studies
MATH 1130 - College Algebra
MATH 1420 - Geometry Concepts for Teachers
MATH 1530 - Introductory Statistics
MATH 1630 - Finite Mathematics
MATH 1710 - Pre-calculus Algebra
MATH 1720 - Pre-calculus Trigonometry
MATH 1730 - Pre-calculus Mathematics
MATH 1830 - Applied Calculus
MATH 1910 – Calculus

**Natural Sciences**

"Meets Tennessee Technological University general education requirement (Natural Sciences)."

ASTR 1010 - Introduction to Modern Astronomy
ASTR 1020 - Introduction to Modern Astronomy
BIOL 1010 - Introduction to Biology I
BIOL 1020 - Introduction to Biology II
BIOL 1105 - Foundations of Biology
BIOL 1114 - General Zoology (formerly BIOL 1110 - General Zoology)
BIOL 2110 - General Botany (formerly BIOL BIOL 1120 - General Botany)
BIOL 1310 - Concepts of Biology and Environment
BIOL 2010 - Human Anatomy and Physiology I
BIOL 2020 - Human Anatomy and Physiology II
CHEM 1010 - Introductory Chemistry I
CHEM 1020 - Introductory Chemistry II
CHEM 1110 - General Chemistry I
CHEM 1120 - General Chemistry II
CHEM 1310 - Concepts of Chemistry
GEOG 2100 - Introduction to Meteorology
GEOL 1040 - Physical Geology
GEOL 1045 - Earth Environment, Resources and Society
GEOL 1070 - Concepts of Geology
PHYS 1310 - Concepts of Physics
PHYS 2010 - Algebra-based Physics I
PHYS 2020 - Algebra-based Physics II
PHYS 2110 - Calculus-based Physics I
PHYS 2120 - Calculus-based Physics II

**Social/Behavioral Sciences**

"Meets Tennessee Technological University general education requirement (Social/Behavioral Sciences)."

AGBE 2010 - World Food and Society
ANTH 1100 - Introduction to Anthropology
ECON 2010 - Principles of Microeconomics
ECON 2020 - Principles of Macroeconomics
**ESS 1100 - Introduction to Environmental Studies**
EXPW 2015 - Concepts of Health and Wellness
GEOG 1012 - Cultural Geography
GEOG 1130 - Geography of Natural Hazards
POLS 1030 - American Government
PSY 1030 - Introduction to Psychology
SOC 1010 - Introduction to Sociology
WGS 2010 - Introduction to Women and Gender Studies

TO: University Curriculum Committee

FROM: Dr. Liz Mullens, Dean, College of Agriculture and Human Ecology Liz Mullens

VIA: College of Agriculture and Human Ecology Curriculum Committee Melinda Swafford

VIA: School of Human Ecology Curriculum Committee Melinda Swafford

FROM: Dr. Melinda Anderson, Director M Anderson

DATE: September 8, 2017

RE: Curriculum Changes

Course Deletions:
Delete HEC 2060 The Family System (2 credits) from the catalog.

Justification:
Several years ago the School of Human Ecology added a new core class, HEC 2065 Families in Society (3 credits) to replace HEC 2060 on the HEC Curriculums. We left HEC 2060 at the time, since it was required on some College of Education curriculums. For the last 2 years, we have not been able to teach the class due to not having any adjuncts available for it; therefore it has not been offered in over 2 years. It has now been removed from those College of Education curriculums.

Course Additions:
None

Curriculum Changes:
From:
HEC 3591: Child Life Clinical Preparation Lec 2. Credit 2.

To:
HEC 3591: Introduction to Child Life Clinical Experience Lec. 2. Credit 2.

Justification:
To align the language used for internships with the Association of Child Life Professionals

From:
HEC 4590: Clinical Child Life Experience Credit 12.

Prerequisite: Senior Standing, HEC 3570 and HEC 4550.
Supervised work experience in a pediatric health care facility to develop clinical child life skills. Direct supervision by a Certified Child Life Specialist in good standing with the Child Life Council is required. In order to meet the Child Life Council eligibility requirements to sit for the Child Life Certification Exam, the Child Life Internship experience must be a minimum of 480 clock hours.

To:
HEC 4590: Child Life Clinical Experience Credit 12.
Prerequisite: Senior Standing, HEC 3570 and HEC 4550.
Supervised clinical (internship) experience in a health care facility to develop clinical child life skills. Direct supervision by a Certified Child Life Specialist in good standing with and meeting supervisor qualifications of the Association of Child Life Professionals is required. In order to meet the Association of Child Life Professional's eligibility requirements to sit for the Professional Child Life Certification Exam, the child life clinical experience must be a minimum of 600 hours.

Justification:
Change requested to align title and description with current requirements and language of the Association of Child Life Professionals.

From:
HEC 2250: Child Life Theory and Practice Lec. 3 Credit 3.
Introduction to the field of child life, the role of the child life specialist in health care, theory, professional practices, overview of Child Life Council and certification process. Course is taught by a Certified Child Life Specialist.

To:
HEC 2250: Child Life: Theory and Practice Lec. 3 Credit 3.
Introduction to the field of child life, the role of the Certified Child Life Specialist with children and families, theoretical foundations, professional practice, overview of Association of Child Life Professionals, certification eligibility requirements and process.

Justification:
Change requested to update name of professional organization to Association of Child Life Professionals and align with current requirements and language.

From:
HEC Family and Consumer Sciences Education Concentration Note:

1. Student working toward teacher certification must take HEC 4871, HEC 4872, HEC 4881 and HEC 4882 and must complete all requirements for admission to Teacher Education

program. Students seeking non-licensure HEED must take 22 credit hours including: HEC 4000 (1 hour) HEC 4990 (12 hours) and three hours of upper division electives to total nine hours.

To:
HEC Family and Consumer Sciences Education Concentration Note:

1. Student working toward teacher certification must take HEC 4871, HEC 4872, HEC 4881 and HEC 4882 and must complete all requirements for admission to Teacher Education program. Students seeking non-licensure HEED must take 22 credit hours including: HEC 4005 (2 hours) HEC 4990 (12 hours) and a total of eight credit hours of electives, three hours of which must be upper division credits, to total 22 credits.

Justification:
To update HEC 4005 course # (HEC 4000 was deleted) and to clarify wording for the non-licensure requirement of 22 credit hours.

From:
HEC 1030 Introduction to Nutrition Lec 2. Credit 2.
Principles of basic nutrition for personal lifestyle choices and selection of foods for promotion and maintenance of health throughout the lifespan.

To:
HEC 1030 Introduction to Nutrition Lec. 2. Credit 2.
Principles of basic nutrition for personal lifestyle choices and selection of foods for promotion and maintenance of health throughout the lifespan. HEC 1030 cannot be substituted for HEC 2020.

Justification:
To clarify that HEC 1030 Introduction to Nutrition is a different class from HEC 2020 Nutrition for Health Sciences and the courses are NOT interchangeable for graduation purposes.