

IF THIS PROGRAM OF STUDY WAS COMPLETED BY AN ADVISOR THROUGH THE COE, STUDENT SERVICES OFFICE, YOU MUST BRING IT WHEN STARTING YOUR FILE AND THEN KEEP IT TO USE AS A GUIDE WHEN COMPLETING YOUR BOARD APPLICATION AND STUDENT TEACHING APPLICATION.

Student Name: _____ Dept. Advisor _____

ID Number: _____ Checked by: _____

Catalog Year: 2012 - 2013

**EAST TENNESSEE STATE UNIVERSITY
COLLEGE OF EDUCATION
APPROVED PROGRAM OF STUDY IN TEACHER PREPARATION FOR**

BIOLOGY

7-12

415

Tennessee Licensing Endorsement

Grade Level

Code#

**GENERAL EDUCATION REQUIREMENTS:
TOTAL GENERAL EDUCATION HOURS 41-42**

I. COMMUNICATION (9 hours)

- _____ ENGL 1010 Critical Reading & Exp. Writ. (3)
- _____ ENGL 1020 Critical Thinking & Argument. (3)
- One of the following:
 - _____ SPCH 1300 Intro to Communication Studies(3)
 - _____ SPCH 2300 Public Speaking (3)
 - _____ SPCH 2320 Argumentation & Debate (3)

II. USING MATHEMATICS (3-4 hours)

- _____ MATH 1840 Analy. Geom and Differ Calc (3)
- _____ MATH 1530 Probability and Statistics (3)
- _____ MATH 1910 Calculus I (4)

III. SCIENCE (8 hours)

- Open to Non-Science Majors only:
- _____ BIOL 1010-1011 Biology for Non-majors I (4)
 - _____ BIOL 1020-1021 Biology for Non-majors II (4)
 - _____ CHEM 1030 Intro. to Chem. Survey (4)
 - _____ PHYS 1030 Intro. to Physics Survey (4)
 - _____ CHEM 1000 Chemistry & Well-Being (4)
 - _____ ASTR 1010 Astronomy I (4)
 - _____ ASTR 1020 Astronomy II (4)
 - _____ ASTR 1035 Life in the Universe (4)
 - _____ BIOL 1110-1111 Biol for Sci Majors I (4)
 - _____ BIOL 1120-1121 Biol for Sci Majors II (4)
 - _____ BIOL 1130-1131 Biol for Sci Majors III (4) (TI)
 - _____ CHEM 1110-1111 Gen. Chemistry I (4)
 - _____ CHEM 1120-1121 Gen. Chemistry II (4)
 - _____ GEOL 1040-1041 Exploring Geology (4)
 - _____ GEOL 1050 Historical Geology (4)
 - _____ GEOG 1110 Earth Sci: Weath. & Clim. (4)
 - _____ GEOG 1120 Earth Sci: Land. & Proc. (4)
 - _____ HSCI 2010-2011 Anatomy & Phys. I (4)
 - _____ HSCI 2020-2021 Anatomy & Phys. II (4)
 - _____ PHYS 2010-2011 Gen. Physics I (4) (WI)
 - _____ PHYS 2020-2021 Gen. Physics II (4) (WI)
 - _____ PHYS 2110 Tech. Physics I - Calc. Based (5)
 - _____ PHYS 2120 Tech. Physics II - Calc. Based (5)

IV. HISTORY (6 hours)

- _____ HIST 2010 The U.S. to 1877 (3)
- _____ HIST 2020 The U.S. since 1877 (3)
- (HIST 2030-History of TN (3 credits) may be substituted for 3 credits of US History)

V. HUMANITIES AND FINE ARTS (9 hours)

- Literature – complete one of the following:
- _____ ENGL 2030 Literary Heritage (3)
 - _____ ENGL 2110 American Literature I (3)
 - _____ ENGL 2120 American Literature II (3)
 - _____ ENGL 2210 British Literature I (3) (WI)
 - _____ ENGL 2220 British Literature II (3) (WI)
 - _____ ENGL 2430 European Literature (3) (WI)
 - _____ ENGL 2330 World Literature (3)

Fine Arts – complete one of the following:

- _____ ARTH 2010 Art History Survey I (3)
- _____ ARTH 2020 Art History Survey II (3)
- _____ MUSC 1030 Introduction to Music (3)
- _____ MUSC 1035 History of Jazz (3)
- _____ DANC 3500 Dance as a Human Exp. (3)
- _____ THEA 1030 Intro. to Theatre (3)
- _____ HUMT 2310 Arts and Ideas I (3)
- _____ HUMT 2320 Arts and Ideas II (3)

Humanities Elective – complete one of the following

- _____ ENGL 3150 Lit., Ethic, & Values (3) (WI)
- _____ ENGL 3280 Mythology (3) (WI)
- _____ ENTC 3020 Technology and Society (3)
- _____ HIST 1110 World History & Civ. to 1500 (3)
- _____ HIST 1120 World History & Civ. Since 1500 (3)
- _____ PHIL 1030 Introduction to Philosophy (3)
- _____ PHIL 2020 Introduction to Ethics (3) (WI)
- _____ PHIL 2040 Phil. As Conversation (3) (OI)
- _____ PHIL 2640 Science and the Modern World (3)
- _____ RELI 2210 Intro. to Study of Religion (3)

VI. SOCIAL AND BEHAVIORAL SCIENCES (6)

- ECON 1050 Economics & Society (3) **OR**
- ECON 2210 Principles of Macroeconomics (3)
- ECON 2220 Principles of Microeconomics (3)
- GEOG 1012 Introduction to Cultural Geography (3)
- HDAL 2310 Developmental Psychology (3)
- HDAL 2340 Understanding Cultural Diversity (WI) (OI) (3)
- PSCI 1110 Political Life (3) (WI) (OI)
- PSCI 1120 Introduction to American Government (3)
- PSYC 1310 Introduction to Psychology (3)
- SOCI 1020 Introduction to Sociology (3)
- SOCI 2020 Social Problems (3) (WI)
- ANTH 1240 Introduction to Cultural Anthropology (3)
- SRVL 1020 Introduction to Service Learning (3) (WI) (OI)
- WMST 2010 Introduction to Women's Studies (3) (WI)

MATHEMATICS AND NATURAL SCIENCES

- IBMS 1100 Integrative Biology and Statistics6 credits
- IBMS 1200 Integrative Biology and Calculus6 credits

NOTE: Completion of IBMS 1100 and 1200 satisfies both the Mathematics requirement and the Natural Sciences requirement. Students must complete the entire two-course sequence in order to fulfill the Mathematics and Natural Sciences blocks. Students who complete only one of the courses (not recommended) will be considered to have met four credit hours of the Natural Sciences requirement.

Revised 03/11

**ADDITIONAL GRADUATION REQUIREMENT
USING INFORMATION TECHNOLOGY (3 hours)**

- CSCI 1100 Using Information Technology (3) **OR**
- Pass UIT Proficiency Exam

Writing, Oral and Technology Intensive courses reinforce academic proficiencies in a student's ability to write, speak, and use technology. All intensive courses must be taken at ETSU. Students may exceed intensive requirements but must meet minimum requirements for graduation.

ALL INTENSIVE COURSES LISTED BELOW MUST BE COMPLETED TO MEET PROGRAM AND GRADUATION REQUIREMENTS. PLEASE DISCUSS INTENSIVE REQUIREMENTS WITH YOUR MAJOR ADVISOR.

WRITING: ___ COURSES (WI) ORAL: ___ COURSE(S) (OI) TECHNOLOGY: ___ COURSE(S) (TI)

TEACHER EDUCATION MINOR: ✓ requires admission to Teacher Education to enroll

- EDFN 2100 Orientation to the Profession of Education (1)
- EDFN 2300 Foundations for Teaching (2) (must meet test score requirement to register)
- EDFN 3301 Issues in Education (3) ✓ (WI)
- HDAL 3310 Educational Psychology (3)
- SPED 2300 Exceptional Learners in Schools and Communities (3)
- MEDA 3570 Educational Technology (2) (TI) ✓
- CUIA 4417 Secondary Curriculum and Methodology (3) ✓ (sem. prior to student teaching)
- CUIA 4427 Secondary Curriculum and Methodology Field Experience (1) ✓ (sem. prior to student teaching)
- SCED 4417 Teaching Science in Secondary Schools (3)
- READ 4437 Reading in the Middle/Secondary School (3) (7-12) ✓ (WI)

TOTAL HOURS FOR THE MINOR: 24

PROFESSIONAL SEMESTER:

- CUIA 4580 Student Teaching (12) ✓ (OI)

Revised 05/06

ALL TEACHER LICENSURE STUDENTS MUST RECEIVE ADVISEMENT FROM THE COLLEGE OF EDUCATION PROFESSIONAL ADVISOR IN ROOM 321 WARF-PICKEL.

SECONDARY BIOLOGY EDUCATION SCIENCE CORE

Biological Science	8___
BIOL 1110/1111 Biology for Science Majors I, Lab	
BIOL 1120/1121 Biology for Science Majors II, Lab	
Chemistry	8___
CHEM 1110/11 Gen. Chemistry I/Lab	
CHEM 1120/21 Gen. Chemistry II/Lab	
Geology/Geography	8___
GEOL 1040-1041 Exploring Geology	
GEOL 1050 Historical Geology OR	
GEOG 1110 Earth Science: Weather and Climate	
GEOG 1120 Earth Science: Landform & Proc.	
Physics	8 or 10___
PHYS 2010 AND 2020 Gen. Physics I & II/Lab W(S97)	
OR	
PHYS 2110 AND PHYS 2120 Technical Physics I & II/Lab	
Math	7___
MATH 1530 : Probability & Statistics	
MATH 1910: Calculus I	
Basic core in science	39___
BIOLOGY CONCENTRATION	
BIOL 1130/1131 Biology for Science Majors III/Lab	4___ T(F99)
BIOL 3100 General Genetics	3___
Courses below that are listed under more than one level can only be used to satisfy ONE level	
Molecular Level (one course)	
BIOL 3150/3151 Cell Biology (3,2)	5___ O(F97)
BIOL 4147/4157 Biochem of Macromolecules/Lab	5___ W(F99)
BIOL 4167/4177 Biochem of Metabolism and Lab	5___ W(S00)
BIOL 4597 Recombinant DNA Lab AND	
BIOL 4647 Molecular Biology	6___ T(S98)
BIOL 4747 Population Genetics	4___ T(F97)
Organismal Level (one course)	
BIOL 3220 Comparative Anatomy	4___
BIOL 3230 Vertebrate Embryology	4___
BIOL 3260 Animal Physiology	4___
BIOL 4267 Plant Development	4___
BIOL 4277 Neurobiology	4___
BIOL 4357 Ethology	3___ O(F97)
BIOL 4767 Plant Physiology	4___ O(S99)
BIOL 3480 General Entomology	4___
BIOL 4487 Paleobotany	4___
Population Level (one course)	
BIOL 3350 Ecology	4___
BIOL 4337 Plant Systemics	4___
BIOL 4360 Evolution	3___ W(F95)
BIOL 4737 Conservation Biology	4___ O(F97)
BIOL 4747 Population Genetics	4___ T(F97)
BIOL 4867 Marine Biology	4___
BIOL 3460 Invertebrate Zoology	4___
BIOL 4367 Systems Ecology	4___
Biodiversity Level (two courses)	
BIOL 3410 Vertebrate Zoology	4___
BIOL 3420 Plant Biology	4___
BIOL 3460 Invertebrate Zoology	4___
BIOL 3480 General Entomology	4___
BIOL 4450 Bryophytes, Ferns, and Seed Plants	4___
HSCI 3320/21 General Microbiology	4___ W(F97)
BIOL 4337 Plant Systemics	4___
BIOL 4487 Paleobotany	4___
BIOL 4477 Ornithology	4___
Total Hours in Biology	<u>22-25</u>
Biology revised 3/10	

TEACHER EDUCATION ENTRANCE AND EXIT REQUIREMENTS**ENTRANCE**

- ___ Declaration of Intent form
 - ___ PPST, ACT, or SAT minimal test scores
 - ___ 2.5 GPA in 32 earned hours (see criteria)
 - ___ Completed EDFN 2100 and 2300 with "C" or above
 - ___ Background Check completed 4 wks prior to submitting
 - ___ Teacher Education Application (see advisors in Office of Student Services)
 - ___ Admission Board Interview
- revised 05/08

EXIT

- ___ Praxis II test scores
- Principles of Learning and Teaching
- Specialty Area Tests
- ___ Recommendation for Licensure