

Name: \_\_\_\_\_ Cum. GPA: \_\_\_\_\_ Date: \_\_\_\_\_

**ADVISEMENT SHEET FOR SECONDARY BIOLOGY CERTIFICATION**

	Planned	Taken	Grade
<b>Phase I: Theoretical Foundations</b>			
EDUC 111: Foundations of American Education (3) <b>First or second semester freshman year</b>	_____	_____	_____
EDUC 112: Psychological Foundations of Education (3) <b>Second semester freshman year or sophomore year</b>	_____	_____	_____
EDUC 255: Mentoring I (1) <b>Second semester freshman year or sophomore year</b>	_____	_____	_____

**Note:** To enroll in EDUC 111 and EDUC 112, students must have a 2.75 cumulative GPA. Incoming freshman with a 3.0 cumulative GPA may enroll concurrently in EDUC 111 and EDUC 112. Students must have successfully completed EDUC 111 and 112 and have at least a 2.75 cumulative GPA to enroll in Mentoring I.

The above three courses with a C or better grade are prerequisites for all Phase II courses. After education students have completed 48 college credits, including the three Phase I courses listed above, they must make application for formal admission to the Teacher Education Program. In addition to the required courses and a cumulative 3.0 GPA, students must also have passing scores on the Pre-Professional Skills Tests (PPST's) in Reading, Writing, and Math, the first set of PRAXIS tests administered by the Educational Testing Services (ETS) that are part of the teacher-certification process.

**Phase II: Content Methodology  
Sophomore or junior year**

EDUC 215: Curriculum, Instruction, & Assessment (3)	_____	_____	_____
EDUC 356: Educating the Exceptional Child (3)	_____	_____	_____
SECED 325: Teaching Reading and Writing in the Content Areas (3) <b>Junior or senior year</b>	_____	_____	_____
EDUC: 220: Integrated Instructional Systems	_____	_____	_____
SECED 268: Mentoring, II: Classroom Methodology (2)	_____	_____	_____
SECED 370: Teaching Science in Secondary Schools (3)	_____	_____	_____

**Phase III: The Professional Semester**

SECED 444: Student Teaching (12)	_____	_____	_____
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**Senior year** Prerequisites: Successful completion of all Phase I and II courses with a C or better grade, the required cumulative GPA, and qualifying scores on the required PRAXIS tests.

**REQUIRED COURSES:**

Eng 120 Introduction to Literature <b>OR</b>			
Eng 230 American Literature to 1865 <b>OR</b>			
Eng 240 American Literature 1865 to Present	_____	_____	_____
Two College-Level Mathematics Courses			
Math _____	_____	_____	_____
Math _____	_____	_____	_____
CIS 111: Word Processing Applications (1) <b>Sophomore or junior year</b>	_____	_____	_____
AH 105: Taking Care of Your Health (2) <b>Sophomore or junior year</b>	_____	_____	_____

Additions to PA’s Instructional and Educational Specialist Preparation Programs:  
Accommodations and Adaptations for Students with Disabilities in an Inclusive Setting and  
Meeting the Needs of English Language Learners

PA’s teacher preparation programs must include the competencies and skills needed to equip teachers to accommodate and adapt instruction for students with disabilities in an inclusive setting and to assist English language learners.

Final rulemaking for the State Board of Education published in the PA Bulletin on September 22, 2007 requires all instructional and educational specialist preparation programs to include the following by January 1, 2011:

1. At least 9 credits or 270 hours regarding accommodations and adaptations for students with disabilities in an inclusive setting (instruction in literacy skills development and cognitive skill development for students with disabilities must be included); and
2. At least 3 credits or 90 hours regarding the instructional needs of English language learners.

Candidates who apply for a PA instructional and/or educational specialist certificate on or after January 1, 2013 must have completed the credits/hours described above.

**COMPETENCY REQUIREMENT**

**Competencies: Intended to be completed during the first two years – Can only be fulfilled by earning a grade of C- or better in specified courses or by performing at a predetermined level on a proficiency or placement test.**

**I. Communication in the Global Arena: These courses are designed to introduce the student to the knowledge and skills required to communicate effectively with others via writing and speaking, with special attention given to the learning of a foreign language. These courses should be taken during the first two years.**

	Planned	Taken	Grade
ENG 111 - Oral and Written Expression I	_____	_____	_____
ENG 112 - Oral and Written Expression II	_____	_____	_____

**Note:** Either Eng 111 or Eng 112 fulfills the PDE composition requirement.

Introductory Foreign Language I	_____	_____	_____
Introductory Foreign Language II	_____	_____	_____
<i>Or</i>			
Qualifying proficiency test score:	_____		
<i>Or</i>			
Intermediate Foreign Language I	_____	_____	_____

Writing Intensive Courses (five required)

Writing Intensive Course 1	_____	_____	_____
Writing Intensive Course 2	_____	_____	_____
Writing Intensive Course 3	_____	_____	_____
Writing Intensive Course 4	_____	_____	_____
Writing Intensive Course 5	_____	_____	_____

**II. Mathematics Competency**

**Note:** PDE requires two college-level mathematics courses.

Math	_____	_____	_____
Math	_____	_____	_____

## INTEGRATIVE REQUIREMENT

**III. Commitment to a Humanistic Vision:** These courses are designed to introduce the student to the knowledge, culture, and values of humanity as they have been expressed in the history, literature, art, music, religion, and philosophy of the West, with special attention given to the Jewish and Christian traditions. Courses should be taken in the first year.

INDS 115: History of Western Humanities I	_____	_____	_____
INDS 125: History of Western Humanities II	_____	_____	_____
REL 120: Interpreting the Jewish and Christian Scriptures	_____	_____	_____

**IV. Citizenship in a Scientific Age:** These courses are designed to introduce the student to the methods, techniques, and achievements of the natural and social sciences, with special attention given to the non-Western heritage and to the global issues facing citizens in the twenty-first century. Courses should be taken during the second year.

	Planned	Taken	Grade
INDS 210 or 220: Science and Our Global Heritage I or II	_____	_____	_____
Natural/Physical Laboratory science: _____	_____	_____	_____

**V. Choosing Depth and Diversity:** These courses challenge students to choose areas of exploration into human knowledge and experience that promote diverse ways of thinking and inquiring. Students must successfully complete a course in each of the following four groups:

1. Humanities (Comm, Eng, Foreign Lang, Hist, Phil, Rel) _____	_____	_____	_____
2. Fine & Performing Arts (Art, Mus, Thar) _____	_____	_____	_____
3. Social Sciences (JFJ, PoSci, Psych, Soc) _____	_____	_____	_____
4. Mathematics/ Science/Computer Science _____	_____	_____	_____

**VI. Concern for Physical Well-Being:** These courses are designed to promote an awareness in the student that physical well-being and development are complimentary to intellectual and emotional enjoyment

Theory Course – AH 105 -Taking Care of Your Health	_____	_____	_____
Activity Unit 1 (course or sport) _____	_____	_____	_____
Activity Unit 2 (course or sport) _____	_____	_____	_____

## COURSES REQUIRED FOR A MAJOR IN BIOLOGY

**Foundational Courses – This course set is designed to provide the student with a basic understanding of the principles of science in general and biology in particular. They are to be taken during the first two years.**

	Planned	Taken	Grade
Bio 145 Foundations of Biology	_____	_____	_____
Chem 140 General Chemistry I	_____	_____	_____
Chem 160 General Chemistry II	_____	_____	_____
Math 141 Precalculus or higher numbered course	_____	_____	_____
Systematics (Bio 212 Microbiology or Bio 262 Animal Systematics or Bio 263 Plant Systematics or Bio 222 Entomology)	_____	_____	_____

**Area Studies – This course set is designed to introduce the student to concepts and principles of the major areas within the discipline of biology. They are to be taken after the foundational courses in the following sequence:**

### Sophomore Year

Bio 322 Genetics	_____	_____	_____
Physiology – Bio 294 Human Physiology or Bio 352 Animal Physiology or Bio 302 Plant Physiology	_____	_____	_____

### Junior Year

Bio 342 Introduction to Methods in Biology	_____	_____	_____
Bio 393 Cell Biology	_____	_____	_____
Bio 392 General Ecology	_____	_____	_____

**Departmental Elective – This single course requirement is designed to allow the student to explore an area of Biology that is somewhat specialized and can, therefore, be explored in greater depth than is possible in other courses in the curriculum. It is expected that this course will be taken in the Junior or Senior Year**

Choice of one of the following:

Developmental Biology, Toxicology, Animal Behavior, Immunology and Parasitology, Comparative Chordate Anatomy, Aquatic Ecology, Animal Systematics, Plant Systematics, Microbiology, Entomology	_____	_____	_____
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**Capstone Experience – These two courses are designed to integrate material from a variety of courses and experiences and to provide the student with opportunities for development as a mature and independent scientist. They are to be taken in the Senior year (Independent Research may begin in the Junior year).**

Bio 462 Senior Seminar	_____	_____	_____
Bio 452, 482 Independent Research (2CH)	_____	_____	_____