

TO: University Curriculum Committee

FROM: Dr. Michael Cullin, Secondary Science Education Program Coordinator

RE: Curricular changes associated with the implementation of PDE, Chapter 49.2 requirements

Chapter 49.2 legislation by the PA Department of Education stipulates that all teacher education programs across the state must add 12 credit hours of coursework in special education (9 credits of inclusionary practices and 3 credits on English Language Learners). The PA State System of Higher Education has agreed to permit secondary science programs to increase the number of credits in programs from 120 to 129.

We are proposing the same changes to all five of the secondary science education programs and thought it would be more efficient to put them before you as a group. The proposed changes do not affect the existing science and supporting requirements nor do they affect general education requirements. The proposed changes are as follows:

1. Eliminate the 2-credit course EDTF 101 Social Foundations of Education.
2. Eliminate the 1-credit course EDTF 205 Educational Media I.
3. Eliminate the 1-credit course EDTF 311 Educational Media II.
4. Increase the number of credits of SCI 209 Science Methods I from 2- to 3-credits and incorporate essential content from EDTF 101, EDTF 205, and EDTF 311 (that syllabus revision will be forthcoming).
5. Add four courses in special education:
 - a. SPEC2XX Cognitive Development of Diverse Learners (3 credits)
 - b. SPEC2XX Cultural/Linguistic Diversity in Education (3 credits)
 - c. SPEC3XX Literacy Instructional Strategies for Students w/ Disabilities (3 credits)
 - d. SPEC3XX Effective Instruction for Students w/ Disabilities (3 credits)
6. The “math” associated with these changes: $120 - 4 + 1 + 12 = 129$.

Two additional changes are also being proposed at this time:

1. The 2-credit course EDUC 212 Classroom Management, currently offered during Block I will be moved to Block II. This will become a 300-level course (that syllabus revision will be forthcoming).
2. The 3-credit course PSYC 317 Educational Psychology will be replaced by the 3-credit course PSYC 201 Educational Psychology and certain sections of the latter will be designated for secondary education majors. Educational Psychology will be moved from Block II to Block I.

There are two minor changes to the Secondary Education – Physics program proposed here. Two courses, PHYS 330 Mechanics I and PHYS 250 Heat, will be changed from electives to required courses to ensure that all advanced content competencies, as stipulated by the NSTA Standards for Science Teacher Preparation, are addressed in at least one required physics course above the introductory level (i.e. PHYS 170/171 Intermediate Physics I & II).

Department of Biological Sciences, Lock Haven University
B.S. ED. SECONDARY EDUCATION - BIOLOGY
 DEGREE REQUIREMENTS (Beginning Fall 2008) - 129 credits

Student _____ ID # _____
 Notes: _____

GENERAL EDUCATION REQUIREMENTS (52 s.h.)
[http://www.lhup.edu/academic/acad affairs/general education course list.htm](http://www.lhup.edu/academic/acad%20affairs/general%20education%20course%20list.htm)

	S.H.	Course	When	min Grade
I. Wellness Core (3 s.h.)	3 s.h.	_____	_____	_____
II. Skills Core (9 s.h.)				
English Composition	3 s.h.	Composition	_____	C- _____
Mathematics	3 s.h.	MATH 141 Calculus	_____	C _____
Speech	3 s.h.	_____	_____	C- _____
III. Content Core (30 s.h.)				
A. Humanities (12 s.h.)				
Art/Music/Theatre/Dance	6 s.h.	_____	_____	_____
Philosophy	3 s.h.	_____	_____	_____
Literature	3 s.h.	_____	_____	_____
B. Social & Behavioral Sciences (12 s.h.)				
World History I or II	3 s.h.	_____	_____	C- _____
Political Sciences/Economics	3 s.h.	_____	_____	_____
Psychology	3 s.h.	PSYC103 Adol. Dev.	_____	C _____
Sociology/Anthropology/Geography	3 s.h.	_____	_____	_____
C. Natural Sciences (6 s.h.)				
Lab Science	3 s.h.	BIOL106 Prin. Biol. I	_____	C _____
Lab Science	3 s.h.	BIOL107 Prin. Biol. II	_____	C _____

IV. Electives (10 s.h.)

Course	S.H.	When	min Grade
GEOS/PHYS____ Earth & Space Elective	3	_____	C _____
MATH107 Basic Statistics	3	_____	C _____
CHEM220 Organic Chemistry I *	4	_____	C _____

* Students are encouraged to also take CHEM221, Organic Chemistry II in case they choose to pursue an additional Biology degree.

V. Additional Requirements Overlays (May be in combination with other classes taken)

3 Writing Emphasis (WE) Courses	2 Information Literacy (IL) Courses	2 Multicultural (MC) Courses
Principles of Biology II	Student Teaching I	Sociology or Anthropology
Student Teaching I	Student Teaching II	World History
Student Teaching II		

2 External Experience (EE) Units (min 14 hours each). Student Teaching satisfies this requirement.

**PROFESSIONAL EDUCATION CLASSES (36 S.H.)
(Minimum of C grade in all these courses)**

Course	S.H.	When	min Grade
PSYC103 Adolescent Development (counted as Gen. Ed.)			
SPEC 2XX Cognitive Development of Diverse Learners	3	_____	C _____
SPEC 2XX Cultural/Linguistic Diversity in Education	3	_____	C _____
SPEC 2XX Literacy Instr. for Stud.w/Disabilities	3	_____	C _____
Block I			
SCI 209 Science Methods I	3	_____	C _____
PSYC201 Educational Psychology	3	_____	C _____
Block II			
SCI315 Science Methods II	4	_____	C _____
EDUC312 Classroom Management	2	_____	C _____
SPEC 3XX Effect. Inst. Strat. for Stud. w/Disa.bilities	3	_____	C _____
Student Teaching			
SCI 493 Student Teaching & Practicum I (WE,IL,EE)	6	_____	C _____
SCI 494 Student Teaching & Practicum II (WE,IL,EE)	6	_____	C _____

**SCIENCE REQUIREMENTS (41 s.h.)
(Minimum of C grade in all these courses)**

Required Science: Supporting Courses (12 s.h.)

Course	s.h.	When	min Grade
CHEM120 Principles of Chemistry I	4	_____	C _____
CHEM121 Principles of Chemistry II	4	_____	C _____
PHYS130 Physics I *	4	_____	C _____

* students are encouraged to also take PHYS131, Physics II in case they choose to pursue an additional Biology degree

Required courses in the Major Field: Biology (29 s.h.)

Course	s.h.	When	min Grade
BIOL202 Genetics	3	_____	C _____
BIOL206 Botany I	3	_____	C _____
BIOL240 Zoology	3	_____	C _____
BIOL309 Ecology	3	_____	C _____
BIOL330 Cell & Molecular Biology	4	_____	C _____
BIOL340 Microbiology	4	_____	C _____
BIOL___ Organismal Physiology (BIOL410) OR Plant Physiology (BIOL300)	3	_____	C _____
BIOL3--/4-- Biology elective	2	_____	C _____
CHEM221/PHYS131/BIOL3--/4--	4	_____	C _____

General education science courses designed for non-science majors do not credit toward the requirements listed above.

Record of Tasks Required for Graduation and Certification

Task	Date Completed
Stage I: To Achieve Official Candidacy into the Teacher Education Program at LHUP	
Achieve overall GPA of 3.0 and GPA of 3.0 in your major (*)	
Complete 48 semester hours of coursework	
Complete 6 credits of English and 6 credits of Math with no grade lower than a C- (Minimum grade may be a "C" in some disciplines)	
Complete an Entrance Essay	
Complete a Diversity Profile Plan with your Program Coordinator (co-advisor)	
Have Communication and Disposition Forms completed for you by (3) general education faculty members	
Obtain Liability Insurance (via membership in a professional association or through personal insurance provider)	
Obtain Act 34 (Criminal Background) and Act 151 (Child Abuse History) Clearances	
Complete a Technology Self-assessment	
Obtain negative TB test (available from Glennon Infirmary)	
Stage II: To Be Permitted to Enroll in Upper Level Education Courses	
Achieve overall GPA of 3.0 and GPA in your major of 2.8 (science and math only)	
Achieve passing scores on the PRAXIS I exams (reading, writing, math)	
Achieve a C- or Better in Speech and History (no grade lower than a "C" is permitted in any required course)	
Maintain Liability Insurance via Membership in a Professional Association	
Maintain Act 34 (Criminal Background) and Act 151 (Child Abuse History) Clearances	
Maintain negative TB test (available from Glennon Infirmary)	
Complete 36 hours of field experiences (Obtained during Block I)	
Complete 20 hours of diversity field experiences (10 hours obtain during Block I, 10 based on individual program requirements)	
Have Communication and Disposition Forms completed for you by (3) program faculty members	
Produce and present a Developing Portfolio	
Stage III: To Be Considered by LHUP for Recommendation for Teacher Certification in PA	
Achieve overall GPA of 3.0 and GPA in your major of 2.8 (science and math only)	
Achieve passing scores on the PRAXIS II exam (content specialty area)	
Achieve a C or Better in all required courses	
Complete an additional 20 Hours of Diversity Field Experience (in either Block II or during student teaching)	
Produce and present a Senior Portfolio	
Produce a Teacher Work Sample in one of your Student Teaching Placements	
Have Communication and Disposition Forms completed for you by (2) Cooperating Teachers and your University Supervisor	
Successfully complete (2) student teaching placements	
Receive passing scores on PDE-430 form for each student teaching placement	

*The major GPA may be lower in high need areas such as science and math. You can achieve candidacy without meeting this requirement. However, one's timeline for graduation is likely to be considerably longer than 4 years.

You must maintain a minimum of a 3.0 gpa overall and 2.8 in your major courses.

**SUGGESTED COURSE OF STUDY FOR
B.S.E.D. SECONDARY EDUCATION BIOLOGY**

You may take more courses than suggested, but you must average 15 s.h. per semester to stay on schedule for graduation
You are responsible for meeting the pre-requisites for all courses.

SEMESTER	SH	SEMESTER	SH
Fall Freshman Year		Spring Freshman Year	
BIOL106 Principles of Biology I	3	BIOL107 Principles of Biology II	3
CHEM120 Principles of Chemistry I	4	CHEM121 Principles of Chemistry II	4
English Composition	3	PSYC103 Adolescent Development	3
Philosophy	3	MATH141 Calculus	3
Wellness Core	3	Literature	3
	-		-
	16		16
Fall Sophomore Year		Spring Sophomore Year	
BIOL206 Botany I	3	BIOL240 Zoology	3
CHEM220 Organic Chemistry I	4	BIOL202 Genetics	3
MATH107 Statistics	3	World History I or II	3
Sociology or Anthropology	3	Speech	3
SPEC 2XX Cog. Dev.of Diverse Learners	3	BLOCK I	
	-	SCI209 Science Methods I	3
	16	PSYC201 Educational Psychology	3
			-
			18
Fall Junior Year		Spring Junior Year	
BIOL309 Ecology	3	BIOL---- Organismal or Plant Physiology	3
BIOL330 Cell & Molecular Biology	4	BIOL3--- Biology Elective	3
BIOL3--- Biology Elective	3	Political Science or Economics	3
Art/Music/Theatre	3	GEOS--- Earth & Space science elective	3
SPEC 2XX Cult./Ling. Div. in Edu	3	Art/Music/Theatre	3
	-	SPEC 3XX Literacy Instr. Stud.w/Disa.	3
	16		-
			18
Fall Senior Year		Spring Senior Year	
BIOL340 Microbiology	4	SCI493/494 Student Teaching & Practicum	12
PHYS130 Physics I	4		
BLOCK II			
SCI315 Science Methods II	4		
EDUC312 Classroom Management	2		
SPEC 3XX Effect. Instr. Strat. Stud. w/Disa.	3		
	-		
	17		

