

Lock Haven University
Chemistry Department
Bachelor of Science in Education (BSED) 124 Credits
Secondary Education - Chemistry
For Students entering LHU Fall 2014

General Education Credit Total		42
Intellectual Foundation	Min Grade	9 sh
Written Communication		3 sh
ENGL100: Composition (3)	C-	
WC Competency 1		
WC Competency 2		
Oral Communication	C	3 sh
Math. and Comp. Thinking		3 sh.
MATH141: Calculus I (3)	C	
Note: required for the major		
Critical Thinking		
CT Competency 1		
CT Competency 2		

Knowledge and Inquiry		21 sh
Natural Science Inquiry	C	6 sh
BIOL106: Principles of Biology I (3)		
BIOL107 Principles of Biology II (3)		
Note: both courses required for the major		
Historical, Beh., and Social Science Inq.		6 sh
PSYC103: Adolescent Development (3)	C-	
Note: required for the major		
Phil., Literary, and Aesthetic Inquiry		9 sh
ENGL110: Introduction to Literature (3)	C -	
Note: required for the major		

Personal and Social Responsibility		12 sh
Global Awareness and Citizenship		9 sh
SPEC202: Cultural and Linguistic Diversity (3)	C	
Wellness		3 sh
Experiential Learning		
EL Competency 1		
EL Competency 2		

Major Coursework Credit Total		82
First Year Student Seminar	Min Grade	
SCI119: First Year Seminar	CR	1

Major Area and Cognate Courses	Min Grade	
Required Chemistry and Science Coursework		48
CHEM120: Principles of Chemistry I (4)	C	
CHEM121: Principles of Chemistry II (4)	C	
#CHEM220: Organic Chemistry I (4)	C	
#CHEM221: Organic Chemistry II (4)	C	
#CHEM301: Inorganic Chemistry I (3)	C	
#CHEM316: Quantitative Analysis (4)	C	
#CHEM320: Physical Chemistry I (4)	C	
#CHEM410: Biochemistry (4)	C	
#CHEM 300+ Course (3)	C	
PHYS170: Inter. Gen. Physics I (4)	C	
PHYS171: Inter. Gen. Physics II (4)	C	
GEOSxxx Geoscience Elective (GEOS130 Principles of Geology I recommended) - (3)	C	
MATH142: Calculus II (3)	C	
Professional Education Coursework		12
Block I		
SCI209: Science Methods I (3)	C	
PSYC201: Educational Psychology (3)	C	
Block II		
#SCI315: Science Methods II (4)	C	
EDUC212: Classroom Management (2)		
Special Education Coursework		9
SPEC204: Cognitive Develop. of Div. Learners (3)	C	
#SPEC309: Effect. Instruct. Strat. for Stud. w/Dis. (3)	C	
#SPEC345: Literacy Skills for Students with Dis. (3)	C	
Student Teaching		12
#SCI493: Science ST and Practicum I (6)	C	
#SCI494: Science ST and Practicum II (6)	C	
# = Advanced Course Work		

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Suggested Course Sequence

Fall First Year	SH	Spring First Year	SH
SCI119 Freshman Seminar	1	BIOL107 Principles of Biology II	3
BIOL106 Principles of Biology I	3	CHEM121 Principles of Chemistry II	4
CHEM120 Principles of Chemistry I	4	PSYC103 Adolescent Development	3
English Composition	3	MATH142 Calculus II	3
MATH141 Calculus	3	Introduction to Literature	3
1 General Education Course	3		-
	-		16
	17		
Fall Second Year		Spring Second Year	
CHEM220 Organic Chemistry I	4	CHEM221 Organic Chemistry II	4
CHEM316 Quantitative Analysis	4	PHYS170 Intermediate Physics I	4
GEOS Geoscience Elective	3	1 General Education Course	3
SPEC204 Cognitive Development of Div. Learners	3	BLOCK I	
		SCI209 Science Methods I	3
		PSYC201 Educational Psychology	3
	-		-
	14		17
Fall Third Year		Spring Third Year	
CHEM 301 Inorganic Chemistry I or	3 or	CHEM410 Biochemistry	4
CHEM 320 Physical Chemistry I	4	1 General Education Course	3
PHYS171 Intermediate Physics II	4	1 General Education Courses	3
CHEM300 + Chemistry Elective	3	1 General Education Courses	3
1 General Education Course	3	SPEC345 Literacy Skills. for Students with Disabilities	3
SPE 202 Cultural and Linguistic Diversity	3		-
	-		16
	16		
	or		
	17		
Fall Fourth Year		Spring Fourth Year	
CHEM 320 Physical Chemistry I or	4 or	SCI493 Student Teaching & Practicum I	6
CHEM 301 Inorganic Chemistry I	3	SCI494 Student Teaching & Practicum II	6
1 General Education Course	3		-
SPEC309 Effect. Instruct. Strat. for Stud. With Dis.	3		12
SECONDARY BLOCK II			
SCI315 Science Methods II	4		
EDU 212 Classroom Management	2		
	-		
	16		
	or		
	15		