PROGRAM CODE	COLLEGE OF LIBERAL ARTS AND SCIENCES
ULASCHES	
EFFECTIVE DATE	CHEMISTRY
Fall 2024	
VERSION NUMBER	*BACHELOR OF SCIENCE*
202430	

STUDENT:	STUDENT ID NUMBER:

MAJOR PROGRAM

Required Chemistry

COURSE	CR	GRADE
CHM 100: GENERAL CHEMISTRY I	4	
CHM 102: GENERAL CHEMISTRY II	4	
CHM 214: ORGANIC CHEMISTRY I	4	
CHM 216: ORGANIC CHEMISTRY II	4	
CHM 230: ANALYTICAL CHEMISTRY I	4	
CHM 310: BIOCHEMISTRY I	4	
CHM 314: PHYSICAL CHEMISTRY I	4	
CHM 316: PHYSICAL CHEMISTRY II	4	
CHM 320: ADVANCED INORGANIC CHEMISTRY	4	
CHM 340: ANALYTICAL CHEMISTRY II	4	
CHM 380: SENIOR SEMINAR IN CHEMISTRY	2	
TOTAL CREDITS 42		

CONCOMITANT COURSES

Physics

COURSE	CR	GRADE
PHY 100: PHYSICS I	Note 2	
PHY 102: PHYSICS II	4	

Mathematics

MAT 181: CALCULUS I	Note 2	
MAT 182: CALCULUS II	4	

Biology

BIO 104: PRINCIPLES OF BIOLOGY	Note 2	
TOTAL CREDITS 8		

NOTES:

1. THE COMBINED CREDIT TOTAL TOWARD THE MAJOR PROGRAM FOR CHM 370, CHM 371, CHM 372, AND CHM 373 MAY NOT EXCEED 4 CREDITS. ANY ADDITIONAL RESEARCH CREDIT HOURS MAY COUNT TOWARD FREE ELECTIVES.

2. COURSES REQUIRED FOR THE MAJOR, BUT MAY BE USED TO SATISFY GENERAL EDUCATION REQUIREMENTS IN UNDERSTANDING SCIENCE AND TECHNOLOGY.

MAJOR PROGRAM

Electives *7 CREDITS*

COURSE	CR	GRADE
Chemistry Electives (Choose at least 3 credits)		
CHM 312: BIOCHEMISTRY II	4	
CHM 318: ADVANCED BIOCHEMISTRY	3	
CHM 326: ADVANCED ORGANIC CHEMISTRY	3	
CHM 336: ADVANCED PHYSICAL CHEMISTRY	3	
CHM 351: SELECTED TOPICS	1-6	
CHM 370: RESEARCH IN CHEMISTRY I (Note 1)	1-3	
CHM 371: RESEARCH IN CHEMISTRY II (Note 1)	1-3	
CHM 372: RESEARCH IN CHEMISTRY III (Note 1)	1-3	
CHM 373: RESEARCH IN CHEMISTRY IV (Note 1)	1-3	
CHM 390: INTERNSHIP IN CHEMISTRY	1-4	
Additional Electives (Choose 0-4 credits)		
CSC 123: INTRO TO SCIENTIFIC PROGRAMMING OR CSC 135: COMPUTER SCIENCE I	3	
CSC 223: ADV SCIENTIFIC PROGRAMMING OR CSC 136: COMPUTER SCIENCE II	3	
MAT 140: APPL. STATISTICAL METHODS OR MAT 150: INTRODUCTION TO BIOSTATISTICS	3	
MAT 224: FOUNDATIONS OF HIGHER MATH	3	
MAT 283: CALCULUS III	4	
SCI 220: PRACTICAL SCANNING ELECTRON MICROSCOPY	3	
PHY 220: ELECTRONICS	3	
PHY 230: OPTICS	3	
PHY 250: PROGRAMMING FOR EXPERIMENTAL RESEARCH AND INDUSTRY	3	
TOTAL CREDITS 7		

Free Electives

COURSE	CR	GRADE
TOTAL CREDITS 6-18		

GRADUATION REQUIREMENTS

KUTZTOWN UNIVERSITY

	REQUIRED	✓		REQUIRED	✓
GENERAL EDUCATION CREDITS	42-45		COMPREHENSIVE EXAM	PASS	
PROGRAM CREDITS (MINIMUM)	57		MINIMUM QPA OVERALL	2.0	
FREE ELECTIVES	6-18		MINIMUM QPA IN MAJOR	2.0	
TOTAL CREDITS	120				

NAME

ID NUMBER

EFFECTIVE DATE
AUGUST 27, 2018

VERSION
2188

DEGREE REQUIREMENTS

GENERAL EDUCATION

KUTZTOWN UNIVERSITY

Student Learning Outcomes *(SLO)*

Upon completion of the requirements for the General Education Program, students will be able to:

1. communicate clearly and effectively orally and in writing.
2. apply scientific and quantitative reasoning to solve problems and increase knowledge.
3. apply skills in critical analysis and reasoning for the interpretation of data.
4. engage critically with creative or artistic works.
5. demonstrate the ability to retrieve, interpret, evaluate, and use information.
6. analyze the role of values, ethics, diversity, and multiple perspectives in local and global society.
7. demonstrate an understanding of various models for the development of the whole person.

Completion of the KU General Education program will give students opportunities to:

8. explore concepts, ideas, and methods from a variety of disciplines.

Use this checksheet to plan your degree program. Meet every semester with your academic advisor to be sure that you are taking courses that are required to obtain the degree you are seeking. Discuss your goals and choose courses that will help you to attain them. Get the most out of your education by taking advantage of everything that Kutztown University has to offer.

TOTAL GENERAL EDUCATION CREDITS 42-45

FIND A FULL EXPLANATION OF THE GENERAL EDUCATION PROGRAM AT WWW.KUTZTOWN.EDU

First Year Seminar: Discovering College

CREDITS REQUIRED 3

CREDITS EARNED:

THIS COURSE MEETS SLO 5 & 7

COURSE NUMBER	COURSE NAME	CR	GR
FYS 100	First Year Seminar		

TRANSFER STUDENTS TRANSFERRING 15 CREDITS OR MORE AND NOT TRANSFERRING AN FYS OR FYE COURSE MAY SELECT ANY ADDITIONAL COURSE FROM SECTIONS A, B, C, OR D TO MEET THEIR FYS REQUIREMENT

TRANSFER ELECTIVE:		

A Communicating With And About the World

CREDITS REQUIRED 12

CREDITS EARNED:

THESE COURSES MEET SLO 1 & 5

	COURSE NUMBER	COURSE NAME	CR	GR
1	COMPOSITION 100 LEVEL	CMP 1__		
2	COMPOSITION 200 LEVEL	CMP 2__		
3	SPEAKING			
4	ANY WRITING (A2) OR SPEAKING COURSE (A3) OR FROM THE APPROVED LIST			

COURSES IN CATEGORIES B, C & D MUST BE TAKEN OUTSIDE THE STUDENT'S MAJOR.
THE MAJOR IS DEFINED AS THE PREFIX THAT IDENTIFIES THE MAJOR.
CONCOMITANT REQUIREMENTS MAY BE TAKEN TO MEET GENERAL EDUCATION REQUIREMENTS.

B Understanding Self & Others

CREDITS REQUIRED 9

CREDITS EARNED:

THESE COURSES MEET SLO 3 & 6

	COURSE NUMBER	COURSE NAME	CR	GR
1				
2				
3				

C Understanding Science & Technology

CREDITS REQUIRED 9-12

CREDITS EARNED:

THESE COURSES MEET SLO 2 & 3

	COURSE NUMBER	COURSE NAME	CR	GR
1	SCIENTIFIC INQUIRY			
2	QUANTITATIVE REASONING			
3	ANY COURSE APPROVED FOR C1 OR C2			

D Understanding & Creating Ideas

CREDITS REQUIRED 9

CREDITS EARNED:

THESE COURSES MEET SLO 4 & 6

	COURSE NUMBER	COURSE NAME	CR	GR
1				
2				
3				

B.S. Chemistry Example 4-Year Schedule

Freshman Year

Fall Semester	Cr
CHM 100 - Gen Chem I	4
MAT 105, 106, 115 or 181	3 - 4
FYS – First Year Seminar	3
Gen Ed (A1 – CMP1XX)	3
Gen Ed (A3 – COM010)	3
Total	16 - 17

Spring Semester	Cr
CHM 102 - Gen Chem II	4
MAT 106, 181 or 182	3 - 4
BIO 104 - Principles of Biology	4
Gen Ed (A2 – CMP2XX)	3
Total	14 - 15

Sophomore Year

Fall Semester	Cr
CHM 214 - Organic Chem I	4
PHY 100 - Physics I	4
MAT 182 – Calculus II*	4
Gen Ed (B1)	3
Total	15

Spring Semester	Cr
CHM 216 - Organic Chem II	4
PHY 102 - Physics II	4
Gen Ed (B2)	3
Gen Ed (D1)	3
Total	14

*Students may be at a different level of Calculus but should continue within the MAT sequence depending on initial math course taken.

Junior Year

Fall Semester	Cr
CHM 314 - Physical Chem I	4
CHM 230 - Analytical Chem I	4
Gen Ed (A4)	3
Gen Ed (D2)	3
Total	14

Spring Semester	Cr
CHM 316 - Physical Chem II	4
CHM 340 - Analytical Chem II	4
Major Program Elective	3-4
Free Elective	3
Total	14 - 15

Senior Year

Fall Semester	Cr
CHM 310 – Biochemistry I	4
CHM 380 - Senior Seminar	2
Gen Ed (D3)	3
Free Elective	3
Free Elective	3
Total	15

Spring Semester	Cr
CHM 320 - Adv Inorganic Chem	4
Major Program Elective	3 - 4
Gen Ed (B3)	3
Free Elective	3
Free Elective	3
Total	16-17