

PROGRAM CODE ULASINF
EFFECTIVE DATE Fall 2023
VERSION NUMBER 2238

COLLEGE OF LIBERAL ARTS AND SCIENCES

Informatics Data Science ...

BACHELOR OF SCIENCE

STUDENT:	STUDENT ID NUMBER:
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MAJOR PROGRAM

Required Courses		
COURSE	CR	GRADE
CSC 105 - Introduction to Data Visualization	3	
CSC 123: Introduction to Scientific Programming I OR CSC 135: Computer Science I	3	
CSC 125: Discrete Math for CS I	3	
CSC150: Ethical, Legal, and Professional Impacts of the Digital Age	3	
CSC 223: Advanced Scientific Programming	3	
CSC 256: SQL Programming	3	
CSC 356: Introduction to Database Management Systems	3	
CSC 458: Data Mining and Predictive Analytics I	3	
CSC 459: Introduction to Big Data	3	
TOTAL CREDITS	27	

Specialization (See specialization areas to right)	19-21 credits
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Elective Courses		
6 additional credits of CSC courses numbered 125 or higher, not including CSC280 or CSC380.		
COURSE	CR	GRADE
	3	
	3	
TOTAL CREDITS	6	

Concomitant Courses		
COURSE	CR	GRADE
MAT 250: Applied Regression Analysis	3	
MAT 304: Statistical Programming OR MAT 325: Applied Time Series Analysis (prereq: MAT 250)	3	
TOTAL CREDITS	6	

Directed General Education <i>The following courses are required to fulfill the major requirements and are suggested to satisfy general education.</i>		
COURSE	G. E.	GRADE
MAT 105 OR higher (MAT 181 for Math Track)	C.2	
TOTAL CREDITS	3	

Free Electives <i>ANY COURSE CARRYING UNIVERSITY CREDIT</i>		
COURSE	CR	GRADE
TOTAL CREDITS	15-20	

Complete ONE of the following specializations (Bio, Geo, Math):

Biology		
COURSE	CR	GRADE
MAT 140: Applied Stats **** OR MAT 150 Intro to Biostatistics ****	xxx	
BIO 104: Principles of Biology ****	xxx	
BIO 106: Introduction to Zoology or BIO 108: Intro to Botany	4	
BIO 120: Anatomy and Physiology I OR BIO 2XX/3XX	4	
BIO 122: Anatomy and Physiology II OR BIO 2XX/3XX	4	
BIO 216: Genetics	3	
BIO 255: Introduction to Bioinformatics	3	
BIO 270: Research Methods OR BIO 370: Research in Biology OR BIO 395: Honors Independent Study/Thesis	3	
TOTAL CREDITS	21	

Geography		
COURSE	CR	GRADE
MAT 140: Applied Stats *** OR MAT 150 Intro to Biostatistics ****	xxx	
GEG 274: Introduction to GIS	3	
GEG 330: Cartography	3	
GEG 333: Advanced GIS	3	
GEG 347: Remote Sensing of the Environment	3	
GEG 375: Research Methods (requires department approval) **	3	
GEG 371: Independent Research OR GEG 394: Internship	3	
GEG 380: Senior Seminar (requires senior thesis) **	3	
TOTAL CREDITS	21	

Mathematics		
COURSE	CR	GRADE
MAT 182: Calculus II ****	xxx	
MAT 224: Foundations of Higher Mathematics OR CSC 225: Discrete Math for Computing II	3	
MAT 260: Linear Algebra I	3	
MAT 283: Calculus II	4	
MAT 301: Probability and Statistics I	3	
MAT 302: Probability and Statistics II	3	
MAT380: Senior Sem in Math OR MAT390: Directed Reading/ Research in Math OR MAT490: Adv Directed Reading/ Research in Math OR MAT 395: Honors IS/Thesis OR MAT398: Honors Research OR CSC 385: CS Sem OR CSC 372: IS / Project in Cis	3	
TOTAL CREDITS	19	

** Students must register in the Geography Department Office since a Geography credit override is necessary
**** Directed General Education course

GRADUATION REQUIREMENTS

	REQUIRED	✓	REQUIRED	✓
GENERAL EDUCATION CREDITS	42-45		COMPREHENSIVE EXAM (Capstone class)	PASS
PROGRAM CREDITS (MINIMUM)	58-60		MINIMUM QPA OVERALL	2.0
FREE ELECTIVES	15-20		MINIMUM QPA IN MAJOR	2.25
TOTAL CREDITS	120			



NAME	
EFFECTIVE DATE FALL 2018 GENERAL EDUCATION VERSION 2188	

KUTZTOWN

UNIVERSITY

DEGREE REQUIREMENTS

GENERAL EDUCATION

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

Use this checklist to plan your degree program. Meet every semester with your academic advisor to be sure that you are taking courses that are required to attain 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	
THESE COURSES MEET SLO 5 & 7		CREDITS EARNED:	
COURSE NUMBER	COURSE NAME	GR	CR
FYS 100	First Year Seminar		
TRANSFER STUDENTS TRANSFERRING 30 CREDITS OR MORE AND NOT TRANSFERRING AN FYS OR FYE COURSE MAY SELECT ANY APPROVED GENERAL EDUCATION COURSE TO MEET THEIR FYS REQUIREMENT.			
TRANSFER ELECTIVE:			

A	Communicating With And About the World		CREDITS REQUIRED 12	
	THESE COURSES MEET SLO 1 & 5		CREDITS EARNED:	
COURSE NUMBER	COURSE NAME	GR	CR	
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	
	THESE COURSES MEET SLO 3 & 6		CREDITS EARNED:	
COURSE NUMBER	COURSE NAME	GR	CR	
1				
2				
3				

C	Understanding Science & Technology		CREDITS REQUIRED 9-12	
	THESE COURSES MEET SLO 2 & 3		CREDITS EARNED:	
COURSE NUMBER	COURSE NAME	GR	CR	
1	SCIENTIFIC INQUIRY			
2	QUANTITATIVE REASONING			
3	ANY COURSE APPROVED FOR C1 OR C2			

D	Understanding & Creating Ideas		CREDITS REQUIRED 9	
	THESE COURSES MEET SLO 4 & 6		CREDITS EARNED:	
COURSE NUMBER	COURSE NAME	GR	CR	
1				
2				
3				

Eight-Semester Planner

BS Informatics

Version: 2238

Semester I FYS CSC105 CSC123 or CSC135 MAT105 or above (MAT181 for math track) General Education elective	Semester II CSC125 or CSC223 CSC150 BIO104 or GEG274 or MAT182 General Education elective General Education elective (not math specialization; only 13 credits)
Semester III CSC223 or CSC125 CSC256 MAT140 or MAT150 or (MAT224 or CSC225) BIO106 or GEG330 or MAT283 General Education elective	Semester IV CSC356 MAT250 or MAT301 BIO120 or BIO2xx or BIO3xx or GEG333 or MAT260 General Education elective or CSC elective General Education elective
Semester V CSC elective or General Education elective BIO122 or BIO2xx or BIO3xx or GEG347 or MAT302 MAT304 or MAT325 or Free Elective General Education elective Free elective	Semester VI CSC elective or CSC458 or CSC459 BIO216 or GEG375 or MAT250 General Education elective Free elective Free elective
Semester VII CSC elective or CSC458 or CSC459 BIO255 or GEG371 or GEG394 or Gen Ed elective MAT304 or MAT325 or Free Elective General Education elective Free elective	Semester VIII CSC elective or CSC458 or CSC459 Capstone: (BIO270 or BIO370 or BIO395) or GEG380 or (MAT380 or MAT390 or MAT490 or MAT395 or MAT398 or CSC385 or CSC372) General Education elective General Education elective or Free Elective Free elective