

PROGRAM CODE: UCOESEUCSM	<b>COLLEGE OF EDUCATION   SECONDARY EDUCATION</b>	
EFFECTIVE DATE: FALL 2022	<b>BACHELOR OF SCIENCE IN EDUCATION</b>	
VERSION NUMBER: 2228	<b>SECONDARY EDUCATION: COMPUTER SCIENCE &amp; MATHEMATICS (GRADES 7-12)</b>	
STUDENT NAME:	STUDENT ID NUMBER:	

PROFESSIONAL COURSES   PRE-CANDIDACY		
COURSE	CR	GR
CMP 100 LEVEL COURSE ♣ ♦	3	
ENG LITERATURE ♣ ♦	3	
EDU 100 PERSPECTIVES ON AMERICAN EDUCATION ♦	3	
SPU 201 COGNITIVE DEV. OF DIVERSE LEARNERS ♦	3	
SPU 314 EFFECTIVE INSTRUCTIONAL STRATEGIES ♦	3	
<b>TOTAL CREDITS</b>	<b>15</b>	

PROFESSIONAL COURSES   TEACHER CANDIDACY REQUIRED*		
COURSE	CR	GR
SEU 312 PRINCIPLES OF LEARNING #	3	
SEU 313 PRINCIPLES OF LEARNING LAB #	3	
SEU 342 PRINCIPLES OF TEACHING #	3	
SEU 343 PRINCIPLES OF TEACHING LAB #	3	
<b>CHOOSE ONE OF THE FOLLOWING:</b>		
SEU 414 COMP SCI METHODS FOR MID. & HIGH SCHOOL #	3	
SEU 430 MATH METHODS FOR MID. & HIGH SCHOOL #		
<b>TOTAL CREDITS</b>	<b>15</b>	

CLINICAL EXPERIENCE COURSES		
COURSE	CR	GR
SEU 390 CLINICAL EXPERIENCE I	6	
SEU 391 CLINICAL EXPERIENCE II	6	
<b>TOTAL CREDITS</b>	<b>12</b>	

- ♣ REQUIRE A GRADE OF **C** OR BETTER
- # REQUIRE A GRADE OF **B** OR BETTER
- ♦ THESE COURSES ALSO FULFILL GEN ED REQUIREMENTS

REQUIRED COMPUTER SCIENCE COURSES		
COURSE	CR	GR
CSC 105 INTRODUCTION TO DATA VISUALIZATION	3	
<b>CHOOSE ONE OF THE FOLLOWING:</b>		
CSC 123 INTRODUCTION TO SCIENTIFIC PROGRAMMING ♦	3	
CSC 135 COMPUTER SCIENCE I ♦		
CSC 150 ETHICS, LEGAL & PROF. IMPACTS OF DIGITAL AGE	3	
CSC 223 ADVANCED SCIENTIFIC PROGRAMMING	3	
CSC 243 JAVA PROGRAMMING	3	
CSC 253 IT SYSTEMS	3	
<b>CHOOSE ONE OF THE FOLLOWING:</b>		
CSC 311 COMPUTER NETWORKS	3	
CSC 328 NETWORK PROGRAMMING		
CSC 341 INTRODUCTION TO INFORMATION SECURITY	3	
CSC 354 SOFTWARE ENGINEERING I	3	
CSC 355 SOFTWARE ENGINEERING II	3	
<b>TOTAL CREDITS</b>	<b>30</b>	

REQUIRED MATHEMATICS COURSES		
COURSE	CR	GR
MAT 181 CALCULUS I ♣ ♦	4	
MAT 182 CALCULUS II ♣	4	
MAT 283 CALCULUS III	4	
MAT 224 FOUNDATIONS OF HIGHER MATHEMATICS	3	
MAT 240 SYNTHETIC GEOMETRY	3	
MAT 260 LINEAR ALGEBRA	3	
MAT 301 PROBABILITY AND STATISTICS I	3	
MAT 311 ABSTRACT ALGEBRA I	3	
MAT 340 DIFFERENTIAL EQUATIONS	3	
<b>TOTAL CREDITS</b>	<b>30</b>	

DIRECTED GENERAL EDUCATION REQUIREMENTS									
<i>THESE ARE GENERAL EDUCATION COURSES THAT ARE ALSO REQUIRED BY THE SECONDARY EDUCATION PROGRAM.</i>									
COURSE	CR	GE	COURSE	CR	GE	COURSE	CR	GE	
CMP 100 LEVEL	3	A1	SPU 314	3	B	ENG LITERATURE COURSE	3	D	
EDU 100	3	B	CSC 135	3	C2				
SPU 201	3	B	MAT 181	4	C3				
<b>TOTAL CREDITS</b>								<b>19</b>	

*TEACHER CANDIDACY REQUIREMENTS	✓
PASSING BASIC SKILLS REQUIREMENT	
3.0 MINIMUM GPA	
C OR BETTER IN REQUIRED COURSES ♣	
PRE-CANDIDACY FIELD EXPERIENCE HOURS	



GRADUATION REQUIREMENTS	✓
42-45 GENERAL EDUCATION CREDITS	
83 PROGRAM CREDITS	
120 MINIMUM TOTAL CREDITS	

NAME	EFFECTIVE DATE AUGUST 27, 2018
ID NUMBER	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.

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.

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TOTAL GENERAL EDUCATION CREDITS 42-45

FIND A FULL EXPLANATION OF THE GENERAL EDUCATION PROGRAM AT [WWW.KUTZTOWN.EDU](http://WWW.KUTZTOWN.EDU)

<b>First Year Seminar: Discovering College</b>	CREDITS REQUIRED	<b>3</b>
THIS COURSE MEETS SLO <b>5</b> & <b>7</b>	CREDITS EARNED:	

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:

<b>A</b>	<b>Communicating With And About the World</b>	CREDITS REQUIRED	<b>12</b>
	THESE COURSES MEET SLO <b>1</b> & <b>5</b>	CREDITS EARNED:	

COURSE NUMBER	COURSE NAME	CR	GR
<b>1</b>	COMPOSITION 100 LEVEL CMP 1__		
<b>2</b>	COMPOSITION 200 LEVEL CMP 2__		
<b>3</b>	SPEAKING		
<b>4</b>	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>B</b>	<b>Understanding Self &amp; Others</b>	CREDITS REQUIRED	<b>9</b>
	THESE COURSES MEET SLO <b>3</b> & <b>6</b>	CREDITS EARNED:	

COURSE NUMBER	COURSE NAME	CR	GR
<b>1</b>			
<b>2</b>			
<b>3</b>			

<b>C</b>	<b>Understanding Science &amp; Technology</b>	CREDITS REQUIRED	<b>9-12</b>
	THESE COURSES MEET SLO <b>2</b> & <b>3</b>	CREDITS EARNED:	

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

<b>D</b>	<b>Understanding &amp; Creating Ideas</b>	CREDITS REQUIRED	<b>9</b>
	THESE COURSES MEET SLO <b>4</b> & <b>6</b>	CREDITS EARNED:	

COURSE NUMBER	COURSE NAME	CR	GR
<b>1</b>			
<b>2</b>			
<b>3</b>			

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## BSED SECONDARY EDUCATION: COMPUTER SCIENCE & MATHEMATICS 8-SEMESTER PLAN

### 1<sup>st</sup> YEAR

FALL		
COURSE	TITLE	CR
CMP 1__	CMP 100 LEVEL COURSE	3
EDU 100	PERSPECTIVES ON AMERICAN EDU.	3
FYS 100	FIRST YEAR SEMINAR	3
MAT	REQUIRED MATH COURSE	4
CONTENT	REQUIRED COURSE	3
<b>TOTAL</b>		<b>16</b>

SPRING		
COURSE	TITLE	CR
CMP 2__	CMP 200 LEVEL COURSE	3
GEN ED	GENERAL EDUCATION COURSE	3
SPU 201	COG. DEV. OF DIVERSE LEARNERS	3
MAT	REQUIRED MATH COURSE	4
CONTENT	REQUIRED COURSE	3
<b>TOTAL</b>		<b>16</b>

### 2<sup>nd</sup> YEAR

FALL		
COURSE	TITLE	CR
ENG __	ENGLISH LITERATURE COURSE	3
GEN ED	GENERAL EDUCATION COURSE	3
GEN ED	GENERAL EDUCATION COURSE	3
CONTENT	REQUIRED COURSE	3
CONTENT	REQUIRED COURSE	3
CONTENT	REQUIRED COURSE	3
<b>TOTAL</b>		<b>18</b>

SPRING		
COURSE	TITLE	CR
SPU 314	EFFECTIVE INSTR. STRATEGIES	3
GEN ED	GENERAL EDUCATION COURSE	3
GEN ED	GENERAL EDUCATION COURSE	3
CONTENT	REQUIRED COURSE	3
CONTENT	REQUIRED COURSE	4
<b>TOTAL</b>		<b>16</b>

### 3<sup>rd</sup> YEAR

FALL		
COURSE	TITLE	CR
SEU 312	PRINCIPLES OF LEARNING	3
SEU 313	PRINCIPLES OF LEARNING LAB	3
CONTENT	REQUIRED COURSE	3
CONTENT	REQUIRED COURSE	3
CONTENT	REQUIRED COURSE	3
CONTENT	REQUIRED COURSE	3
<b>TOTAL</b>		<b>18</b>

SPRING		
COURSE	TITLE	CR
SEU 342	PRINCIPLES OF TEACHING	3
SEU 343	PRINCIPLES OF TEACHING LAB	3
CONTENT	REQUIRED COURSE	3
CONTENT	REQUIRED COURSE	3
CONTENT	REQUIRED COURSE	3
<b>TOTAL</b>		<b>15</b>

### 4<sup>th</sup> YEAR

FALL		
COURSE	TITLE	CR
SEU 414 <i>OR</i> SEU 430	COMP SCI INSTRUCTIONAL METHODS <i>OR</i> MATH INSTRUCTIONAL METHODS	3
GEN ED	GENERAL EDUCATION COURSE	3
CONTENT	REQUIRED COURSE	3
CONTENT	REQUIRED COURSE	3
CONTENT	REQUIRED COURSE	3
<b>TOTAL</b>		<b>15</b>

SPRING		
COURSE	TITLE	CR
SEU 390	CLINICAL EXPERIENCE I	6
SEU 391	CLINICAL EXPERIENCE II	6
<b>TOTAL</b>		<b>12</b>