NAME

EFFECTIVE DATE FALL 2018
GENERAL EDUCATION 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.
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 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

CREDITS EARNED:

THESE COURSES MEET SLO 5 & 7

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

CREDITS EARNED:

THESE COURSES MEET SLO 1 & 5

	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

CREDITS EARNED:

THESE COURSES MEET SLO 3 & 6

	COURSE NUMBER	COURSE NAME	GR	CR
1				
2				
3				

C Understanding Science & Technology

CREDITS REQUIRED 9-12

CREDITS EARNED:

THESE COURSES MEET SLO 2 & 3

	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

CREDITS EARNED:

THESE COURSES MEET SLO 4 & 6

	COURSE NUMBER	COURSE NAME	GR	CR
1				
2				
3				

PROGRAM CODE	COLLEGE OF LIBERAL ARTS AND SCIENCES
ULASCSCMS	COMPUTER SCIENCE: SOFTWARE DEVELOPMENT
EFFECTIVE DATE: FALL 2018	*BACHELOR / MASTER OF SCIENCE*
VERSION NUMBER: 2188	

STUDENT:	STUDENT ID NUMBER:

MAJOR PROGRAM

Required Courses

COURSE	CR	GRADE
CSC 125: DISCRETE MATH FOR CS I	3	
CSC 225: DISCRETE MATH FOR CS II	3	
CSC 135: COMP SCIENCE I	3	
CSC 136: COMP SCIENCE II	3	
CSC 235: COMP PRG & ASSEMBLY LANGUAGE	3	
CSC 237: DATA STRUCTURES	3	
CSC 310: PROGRAM LANGUAGES	3	
CSC 328: NETWORK PROGRAMMING	3	
CSC 343: OPERATING SYSTEMS	3	
CSC 354: SOFTWARE ENGINEERING I	3	
CSC 355: SOFTWARE ENGINEERING II	3	
TOTAL CREDITS 33		

CS Elective Courses *0-9 CREDITS OF ADDITIONAL 200-LEVEL CSC COURSES, NOT PREVIOUSLY USED FOR THE ABOVE REQUIREMENTS, EXCLUDING CSC 280*

COURSE	CR	GRADE
	3	
	3	
	3	
TOTAL CREDITS 0-9		

CS Elective Courses *9-18 CREDITS OF ADDITIONAL CSC COURSES, NUMBER 300 OR ABOVE AND NOT PREVIOUSLY USED FOR ABOVE REQUIREMENTS, EXCLUDING ANY COURSE NUMBERED CSC 87X AND CSC 380*

COURSE	CR	GRADE
TOTAL CREDITS 9-18		

Concomitant Courses

COURSE	CR	GRADE
MAT 260: LINEAR ALGEBRA	3	
MAT ELECTIVE (HIGHER THAN 181, NOT 224)	3	
NATURAL SCIENCE COURSE FOR A SCIENCE MAJOR **	3	
TOTAL CREDITS 9		

Directed General Education *THE FOLLOWING COURSES ARE REQUIRED TO FULFILL THE COMPUTER SCIENCE REQUIREMENTS AND ARE SUGGESTED TO SATISFY GENERAL EDUCATION.*

COURSE	G. E.	GRADE
PHI 40: INTRO TO ETHICS	B	
MAT 181: CALCULUS I	C. 2	
MAT 140 OR 301: APPLIED STAT METHODS	C. 3	
NATURAL SCIENCE COURSE FOR A SCIENCE MAJOR **	C. 1.	
TOTAL CREDITS 13-14		

Free Electives *ANY COURSE CARRYING UNIVERSITY CREDIT*

COURSE	CR	GRADE
TOTAL CREDITS 15-18		

NOTE:

* STUDENTS MINORING IN MATH SHOULD TAKE MAT 301 (NOT MAT 140)

** STUDENTS MUST TAKE TWO SCIENCE COURSES INTENDED FOR A SCIENCE MAJOR. AT LEAST ONE OF THESE COURSES MUST INCLUDE A LAB.

CSC-PREFIX COURSES BELOW 125-LEVEL, CSC 130, CSC 280, CSC 380, ANC CSC 87X DO NOT COUNT TOWARD THE MAJOR REQUIREMENTS FOR A BS IN COMPUTER SCIENCE (THEY CAN COUNT IN FREE ELECTIVES ONLY)

INTERNSHIP – OPTIONAL (COUNTS IN FREE ELECTIVES)
CSC 280: COOPERATIVE INTERNSHIP I (1-6 CREDITS)
CSC 380: COOPERATIVE INTERNSHIP II (1-6 CREDITS)

INTERNAL TRANSFER: 2.25 GPA REQUIRED

BACHELOR GRADUATION REQUIREMENTS

KUTZTOWN UNIVERSITY

	REQUIRED	✓		REQUIRED	✓
GENERAL EDUCATION CREDITS	42-45		COMPREHENSIVE EXAM	PASS	
PROGRAM CREDITS (MINIMUM)	75		MINIMUM QPA OVERALL	2.0	
FREE ELECTIVES	15-18		MINIMUM QPA IN MAJOR	2.25	
TOTAL CREDITS	120				

PROGRAM CODE	COLLEGE OF LIBERAL ARTS AND SCIENCES
GLASCSCBS	COMPUTER SCIENCE: SOFTWARE DEVELOPMENT
EFFECTIVE DATE FALL 2018	*BACHELOR / MASTER OF SCIENCE*
VERSION NUMBER 2188	

Required Courses

COURSE		CR	GRADE
CSC 402: DATA STRUCTURES II			
TOTAL CREDITS	**3**		

Foundational Courses

COURSE		CR	GRADE
CSC 421: WEB-BASED DESIGN AND DEVELOPMENT			
CSC 425: COMPILER DESIGN I			
CSC 447: ARTIFICIAL INTELLIGENCE I			
CSC 456: DATABASE MGMT SYSTEMS I			
CSC 458: DATA MINING & PREDICTIVE ANAL. I			
CSC 459: INTRODUCTION TO BIG DATA			
CSC 510: ADVANCED OPERATING SYSTEMS			
CSC 520: ADV. OBJECT ORIENTED PROGRAM			
CSC 521: ADV. WEB-BASED SOFTWARE DEVELOPMENT			
CSC 526: COMPILER DESIGN II			
CSC 543: MULTIPROCESSING & CONCURRENT PROG.			
CSC 548: ARTIFICIAL INTELLIGENCE II			
CSC 552: ADVANCED UNIX PROGRAMMING			
CSC 556: DATABASE MGMT SYSTEMS II			
CSC 558: DATA MINING & PREDICTIVE ANAL. II			
TOTAL CREDITS	**12-27**		

Optional Thesis

COURSE		CR	GRADE
CSC 599: THESIS		6	
TOTAL CREDITS	**0 OR 6**		

Elective Courses

COURSE		CR	GRADE
TOTAL CREDITS	**0-9**		

Depth Component Requirement

CHOOSE AT LEAST TWO COURSES (ONE OR MORE 500-LEVEL) FROM ONE DEPTH AREA

DEPTH	COURSE NUMBER	COMPLETE
COMPILER	425	
	526	
AI	445	
	447	
	548	
DATABASE	456	
	556	
WEB	421	
	464	
	521	
OO/FUNCTIONAL DESIGN AND DEVELOP	520	
	543	
OPERATING SYSTEMS	543	
	552	
DATA ANALYSIS	458	
	558	

NOTE:

SELECTED TOPICS CSC 480 AND CSC 580 ARE CLASSIFIED AS FOUNDATIONAL OR ELECTIVE BASED UPON THE SPECIFIC TOPIC

BS IN CSC REQUIRES 120 UNDERGRADUATE CREDITS; B AVERAGE OR HIGHER IN CSC COURSES REQUIRED FOR ADMISSION TO GRADUATE SCHOOL.

UNDERGRADUATE ADMISSION TO THE BS/MS PROGRAMIN CS: JUNIOR STATUS (60 OR MORE CREDITS OVERALL) AND AT LEAST 24 CSC COURSE CREDITS WITH 3.00 GPA OR HIGHER AND B OR BETTER IN EACH OF CSC 135, 136, 225, 237, AND A 300-LEVEL COURSE APPROVED BY ADVISOR

1. CANDIDATES FOR THE MS DEGREE IN COMPUTER SCIENCE MUST COMPLETE A TOTAL OF 30 CREDITS. A CANDIDATE MUST COMPLETE ALL DEGREE REQUIREMENTS WITHIN SIX CALENDAR YEARS AFTER HIS OR HER ACCEPTANCE TO THE PROGRAM.

2. STUDENTS MUST SELECT EITHER THE THESIS OPTION OR THE COMPREHENSIVE EXAM OPTION. THE THESIS OPTION REQUIRES THE COMPLETION OF 24 CREDITS OF COURSES AND 6 CREDITS OF THESIS. THE COMPREHENSIVE EXAM OPTION REQUIRES THE COMPLETION OF 30 CREDITS OF COURSES AND PASSING THE COMPREHENSIVE EXAMS. COMPREHENSIVE EXAMS ARE GIVEN THE LAST WEEK OF CLASS IN THE FALL AND SPRING SEMESTERS.

3. STUDENTS MUST COMPLETE AT LEAST 15 CREDITS OF 500-LEVEL COURSES.

4. STUDENTS MUST COMPLETE AT LEAST ONE DEPTH COMPONENT IN THEIR PROGRAM. DEPTH COMPONENTS REQUIRE THE STUDENT TO CHOOSE AT LEAST TWO COURSES (INCLUDING ONE 500-LEVEL) FROM AT LEAST ONE DEPTH AREA

* UP TO AN ADDITIONAL 12 CREDITS OF 400-LEVEL CSC COURSES THAT COUNTED TOWARD THE 120 CREDITS FOR THE BS BUT DID NOT COUNT TOWARDS THE 51 CREDIT REQUIREMENT IN THE UNDERGRADUATE MAJOR MAY BE COUNTED FOR THE MS

MASTER GRADUATION REQUIREMENTS

KUTZTOWN UNIVERSITY

		REQUIRED	✓
BS IN INFORMATION TECHNOLOGY	BS IN COMPUTER SCIENCE: SOFTWARE DEVELOPMENT	120	
MS IN INFORMATION TECHNOLOGY	MS IN COMPUTER SCIENCE: SOFTWARE DEVELOPMENT	30	
CREDITS TRANSFERRED FROM BS	SEE NOTE DIRECTLY ABOVE *	-12	
TOTAL CREDITS TO RECEIVE BS/MS	TOTAL CREDITS NEEDED TO RECEIVE BOTH BS AND MS	138	

Eight-Semester Planner
BS/MS Computer Science: Software Development
Version: 2188

Note: You may take no more than three 200-level courses.

Semester I	Semester II
FYS CSC 135 MAT 181 CSC125 or General Education elective General Education elective	CSC 136 CSC elective CSC 125 or CSC225 MAT 182 or another MAT elective General Education elective
Semester III	**Semester IV**
CSC 237 CSC 235 CSC 225 or General Education elective MAT 140 or 301 General Education elective	CSC elective CSC elective MAT 260 Natural science elective Free elective
Semester V	**Semester VI**
CSC 328 CSC 343 CSC 400-level elective Natural science elective General Education elective	CSC 310 CSC elective CSC 400-level elective PHI 040 General Education elective
Semester VII	**Semester VIII**
CSC 354 CSC elective CSC 400-level elective General Education elective General Education elective	CSC 355 CSC elective CSC 400-level elective General Education elective Free elective