ACADEMIC MAP

Software Engineering, B.A.T.

WV Parkersburg West Virginia University

Semester 1

COURSE	CR	COMMENTS
COLL 101 ORIENTATION TO COLLEGE	1	
CS 121 INTRODUCTION TO PROGRAMMING	4	🚩
CIT 114 WINDOWS OPERATING SYSTEMS	3	
MATH 125 OR MATH 126	3	
WRITING AND RHETORIC ELECTIVE	3	
TOTAL:	**14**	

Semester 2

COURSE	CR	COMMENTS
CS 122 OBJECT ORIENTED PROGRAMMING	4	
CIT 130 PRINCIPLES OF INFORMATION SYSTEMS	3	
CS 129 INTRO TO WEB PAGE DESIGN	3	
CS 201 DATABASE THEORY AND DESIGN	3	
FREE ELECTIVE	2	
TOTAL:	**15**	

Semester 3

COURSE	CR	COMMENTS
CS 221 DATA STRUCTURES	4	🚩
CS 220 WEB APPLICATION DEVELOPMENT	3	
CIT 105 INTRODUCTION TO NETWORKS	5	CISCO 1
PHYS 101 ~INTRO TO PHYSICS 1	4	
TOTAL:	**16**	

Semester 4

COURSE	CR	COMMENTS
PEOPLE AND THEIR WORLDS ELECTIVE	3	
HUMAN COMMUNICATION AND INTERACTION ELECTIVE	3	
CIT 240 INTRODUCTION TO LINUX	3	🚩 LINUX CERT.
CS 260 COMPUTER SCIENCE CAPSTONE	3	🏆
SEC 101 SECURITY FUNDAMENTALS	3	🏆
TOTAL:	**15**	

The **Bachelor of Applied Technology in Software Engineering** provides the skills needed for success in software development, database design, website design and web applications, as well as other related fields. You'll be taught computer programming, web layout, database design and administration, networking and web applications.

MILESTONE COURSE: These courses are the keys to graduation. Courses should be taken in the recommended semesters to stay on time for completion.

CAREER PLANNING: Web Developer / Designer, Database Administrator, Software Developer

CAPSTONE COURSE: A semester long project that must be taken in the graduation semester. A "C" or better must be earned. Software Development Fundamentals Certification.

15-30 Students should average 15 credit hours per semester, or 30 per year, to graduate on time.

TOTAL DEGREE CREDITS:

117

2022-2023

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Semester 5

COURSE	CR	COMMENTS
SEC 300 INTRO TO SECURITY	3	
STEM 300 ETHICS AND TECHNOLOGY	3	
UPPER LEVEL TECHNICAL ELECTIVE	2	
PEOPLE AND THEIR WORLDS ELECTIVE	3	
CS 302 SOFTWARE ANALYSIS AND DESIGN	3	
TOTAL:	**14**	

Semester 6

COURSE	CR	COMMENTS
CS 309 OR CS 321	3	
MATH 318 DISCRETE MATHEMATICS	3	
CS 320 OBJECT ORIENTED DESIGN	3	
WRITING AND RHETORIC ELECTIVE	3	
TOTAL:	**12**	

Semester 7

COURSE	CR	COMMENTS
AESTHETICS, CREATIVITY, AND APPRECIATION	3	
STEM 420 PROJECT MANAGEMENT	3	🚩
UPPER LEVEL TECHNICAL ELECTIVE	3	
CS 403 SOFTWARE ENGR & DATA STRUCTURE	3	
MATH 211 STATISTICS	3	
TOTAL:	**15**	

Semester 8

COURSE	CR	COMMENTS
CS 309 OR CS 321	3	🏆
CS 460 SENIOR PROJECT	3	
CS 410 OR 420	3	
PHYS 102 ~INTRO TO PHYSICS 2	4	
PEOPLE AND THEIR WORLDS ELECTIVE	3	
TOTAL:	**16**	

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Foundational Learning Courses (FLCs):

To ensure breadth and depth as students meet these broad education goals, the curriculum focuses on six academic "strands."

Aesthetics, Creativity, and Appreciation	Human Communication and Interaction	People and Their Worlds	Quantitative Reasoning	Scientific Inquiry	Writing and Rhetoric
ART-101	COMM-105	ECON-201	MATH-120	ASTR-106	ENGL-101
ART-111	COMM-111	ECON-202	MATH-125	BIOL-101	ENGL-102
ENGL-131	COMM-112	GEOG-102	MATH-126	BIOL-102	ENGL-107
ENGL-132	COMM-202	HIST-101	MATH-211	BIOL-103	
ENGL-221		HIST-102		BIOL-104	
ENGL-222		HIST-152		BIOL-107	
ENGL-241		HIST-153		BIOL-108	
ENGL-242		HIST-250		BIOL-109	
ENGL-257		PHIL-111		BIOL-115	
ENGL-261		PHIL-150		BIOL-117	
ENGL-262		PHIL-231		BIOL-171	
ENGL-285		POLS-101		CHEM-111	
MUSI-170		POLS-102		CHEM-115	
THEA-101		PSYC-101		CHEM-116	
		PSYC-241		GEOL-101	
		SOC-101		GEOL-102	
		SOC-107		GEOL-103	
		SOC-221		GEOL-104	
				GEOL-105	
				PSCI-101	
				PSCI-111	
				PSCI-112	
				PHYS-101	
				PHYS-102	
				PHYS-111	