SOFTWARE ENGINEERING, B.A.T.

Course	Title	Hours
Semester 1		
COLL 101	ORIENTATION TO COLLEGE [0]	0
CS 121	INTRODUCTION TO PROGRAMMING [1]	4
CIT 114	WINDOWS OPERATING SYSTEMS	3
Quantitative Reasoning Elective		3
MATH 125	TECHNICAL MATHEMATICS	
or MATH 126	or ~COLLEGE ALGEBRA	
or MATH 128	or ~COLLEGE TRIGONOMETRY	
or MATH 141	or ~FINITE MATH	
or MATH 150	or INTRODUCTION TO CALCULUS	
or MATH 155	or ~CALCULUS 1	
or MATH 156	or ~CALCULUS 2	
Writing and Rhetoric (https://wvup-public.courseleaf.com/programs-study/general-education-mission/#wr) Elective (ENGL 101 Preferred)		3
	Hours	**13**
Semester 2		
CS 122	OBJECT ORIENTED PROGRAMMING	4
CIT 130	PRIN OF INFORMATION SYSTEMS	3
CS 129	INTRO TO WEB PAGE DESIGN	3
CS 201	DATABASE THEORY AND DESIGN	3
Free Elective		3
	Hours	**16**
Semester 3		
CS 220	WEB APPLICATION DEVELOPMENT	3
CIT 105	INTRODUCTION TO NETWORKS [2]	5
Scientific Inquiry (https://wvup-public.courseleaf.com/programs-study/general-education-mission/#si) Elective (PHYS 101 is preferred)		4
Select one of the following:		3
Aesthetics, Creativity, and Appreciation (https://wvup-public.courseleaf.com/programs-study/general-education-mission/#aca)		
Human Communication and Interaction (https://wvup-public.courseleaf.com/programs-study/general-education-mission/#hci)		
People and Their Worlds (https://wvup-public.courseleaf.com/programs-study/general-education-mission/#ptw) (Preferred)		
	Hours	**15**
Semester 4		
Select one of the following:		3
Aesthetics, Creativity, and Appreciation (https://wvup-public.courseleaf.com/programs-study/general-education-mission/#aca)		
Human Communication and Interaction (https://wvup-public.courseleaf.com/programs-study/general-education-mission/#hci) (Preferred)		
People and Their Worlds (https://wvup-public.courseleaf.com/programs-study/general-education-mission/#ptw)		
CS 221	DATA STRUCTURES [1]	4
CIT 240	INTRODUCTION TO LINUX [1,3]	3
SEC 101	SECURITY FUNDAMENTALS [4]	3
CIT 260	CAPSTONE PROJECT [4]	3
	Hours	**16**
Semester 5		
SEC 300	INTRO TO SECURITY	3
STEM 300	ETHICS AND TECHNOLOGY	3
CS 302	SYSTEM ANALYSIS AND DESIGN	3
Select one of the following:		3
Aesthetics, Creativity, and Appreciation (https://wvup-public.courseleaf.com/programs-study/general-education-mission/#aca)		
Human Communication and Interaction (https://wvup-public.courseleaf.com/programs-study/general-education-mission/#hci)		
People and Their Worlds (https://wvup-public.courseleaf.com/programs-study/general-education-mission/#ptw)		
Upper Level Elective		2
	Hours	**14**
Semester 6		
MATH 318	DISCRETE MATHEMATICS	3
CS 320	OBJECT ORIENTED DESIGN	3
CS 410	SOFTWARE MAINT & EVOLUTION	3
or CS 420	or ADVANCED WEB DEVELOPMENT	
CS 309	OPERATING SYSTEMS	3
or CS 321	or MOBILE APPLICATION DEVELOPMENT	
Writing and Rhetoric (https://wvup-public.courseleaf.com/programs-study/general-education-mission/#wr) Elective: (ENGL 102 is preferred)		3
	Hours	**15**

Semester 7		
STEM 420	PROJECT MANAGEMENT [1]	3
CS 403	SOFTWARE ENGR & DATA STRUCTURE	3
MATH 211	~STATISTICS	3
Select two of the following:		6
Aesthetics, Creativity, and Appreciation (https://wvup-public.courseleaf.com/programs-study/general-education-mission/#aca)		
Human Communication and Interaction (https://wvup-public.courseleaf.com/programs-study/general-education-mission/#hci)		
People and Their Worlds (https://wvup-public.courseleaf.com/programs-study/general-education-mission/#ptw)		
	Hours	**15**
Semester 8		
CS 460	SENIOR PROJECT [4]	3
CS 420	ADVANCED WEB DEVELOPMENT	3
or CS 410	or SOFTWARE MAINT & EVOLUTION	
Scientific Inquiry (https://wvup-public.courseleaf.com/programs-study/general-education-mission/#si) Elective (PHYS 102 is preferred)		4
Upper Level Technical Elective		3
CS 321	MOBILE APPLICATION DEVELOPMENT	3
or CS 309	or OPERATING SYSTEMS	
	Hours	**16**
	Total Hours	**120**

[0] Institutional Graduation Requirement, but does not count in degree total.

[1] Milestone Course

[2] CISCO 1

[3] LINUX Cert.

[4] Capstone Course