

SOFTWARE ENGINEERING MAJOR, B.S.

Course	Title	Credits
General Requirements		
General Education (http://catalog.uwplatt.edu/undergraduate/degree-requirements/bachelor-of-science-degree-core-curriculum/)		25
Mathematics (18 credits) ¹		
MATH 2640	Calculus and Analytic Geometry I	4
MATH 2740	Calculus and Analytic Geometry II	4
MATH 2840	Calculus and Analytic Geometry III	4
MATH 2730	Discrete Mathematics	3
MATH 4030	Statistical Methods with Applications	3
Basic Sciences (12 credits)		
PHYSICS 2240	General Physics I	4
Select two lab courses from the following:		8
ASTRON 1310/1340	Introductory Astronomy Lab	
ASTRON 1310/1350	Introductory Astronomy Lab	
BIOLOGY 1150	Concepts of Biology	
BIOLOGY 1350	General Botany	
BIOLOGY 2140	Human Anatomy and Physiology I	
BIOLOGY 2240	Human Anatomy and Physiology II	
BIOLOGY 2340	Essentials of Anatomy and Physiology	
CHEMISTRY 1050	Survey of General Chemistry	
CHEMISTRY 1150	General Chemistry I with Math Development	
CHEMISTRY 1140	General Chemistry I	
CHEMISTRY 1240	General Chemistry II	
CHEMISTRY 1450	Chemistry for Engineers	
GEOGRPHY 1040	Planet Earth	
GEOGRPHY 3140	Global Landforms	
GEOGRPHY 3240	Weather and Climate	
GEOLOGY 1140	Physical Geology	
PHYSICS 2340	General Physics II	
Software Engineering Required Courses (20 credits) ²		
SOFTWARE 2730	Introduction to Software Engineering	3
SOFTWARE 3020	Advanced Software Engineering Tools	1
SOFTWARE 3330	Intermediate Software Engineering	3
SOFTWARE 3430	Object Oriented Analysis and Design	3
SOFTWARE 3730	Software Quality	3
SOFTWARE 4110	Software Engineering Seminar	1
SOFTWARE 4330	Software Engineering Project I	3
SOFTWARE 4730	Software Engineering Project II	3
Computer Science Required Courses (22 credits) ²		
COMPUTER 1010	Introduction to Computer Science	1
COMPUTER 1430	Introduction to Computer Programming	3
COMPUTER 2430	Object-Oriented Programming	3
COMPUTER 2630	Data Structures	3
COMPUTER 3010	Algorithms	3
COMPUTER 3230	Operating Systems	3
COMPUTER 3830	Data Communications and Computer Networks	3
CYB 3840	Introduction to Cybersecurity	3
Computer Science / Cybersecurity Electives (6 credits)		
Select 2 of the following courses:		
COMPUTER 3030	Artificial Intelligence	3

COMPUTER 3520	Programming Language Structures	3
COMPUTER 3630	Database Design and Implementation	3
COMPUTER 3720	Mobile Application Development	3
COMPUTER 3920	Computer Graphics	3
COMPUTER 4030	Machine Learning	3
CYB 3850	Cryptography	3
CYB 3910	Introduction to Network Security	3
CYB 3930	IT Security Management	3
CYB 3960	Software Security	3
Application Domain Sequence (11-12 credits)		8-9
Select one application domain sequence from the following:		
Digital: Take 11 credits from the following:		
COMPENG 2780	Logic and Digital Design	4
COMPENG 3780	Computer Architecture	4
SOFTWARE 4130	Real-Time Embedded Systems Programming	3
Engineering Management: Take 12 credits from the following:		
INDSTENG 3530	Operations Research I	3
INDSTENG 3730	Engineering Management	3
INDSTENG 4430	Quality Engineering	3
INDSTENG 4440	Human Factors Engineering	3
INDSTENG 4750	Principles and Applications of Project Management	3

¹ A "C-" or better is required in MATH 2730, MATH 2640, and MATH 2740.

² A "C-" or better is required in all SOFTWARE, COMPUTER, and CYB Required Courses.