

# CIVIL ENGINEERING MAJOR, B.S.

Course	Title	Credits
<b>General Requirements</b>		
General Education ( <a href="http://catalog.uwplatt.edu/undergraduate/degree-requirements/bachelor-of-science-degree-core-curriculum/">http://catalog.uwplatt.edu/undergraduate/degree-requirements/bachelor-of-science-degree-core-curriculum/</a> )		25
<b>Required Courses</b>		
UWPSTUDY 1010	Introduction to College Life	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 3630	Differential Equations I	3
MATH 4030	Statistical Methods with Applications	3
CHEMISTRY 1450	Chemistry for Engineers	5
PHYSICS 2240	General Physics I	4
ENERGY 3320 or PHYSICS 2340	Understanding Electric Power Systems General Physics II	2
GEOLOGY 3130 or GEOLOGY 1140	Geology for Engineers Physical Geology	3-4
GENENG 1030	Introduction to Engineering Projects	1
<b>Career Development - Choose one of the following:</b>		<b>2-3</b>
BUSADMIN 2330	Leadership and Management	
CIVILENG 3830	Leadership Competencies for Early-Career Engineers	
CIVILENG 3950	Civil and Environmental Engineering Cooperative Education	
CIVILENG 4940	Undergraduate Research	
CIVILENG 4990	Independent Study	
ENVENG 4940	Undergraduate Research	
INDUSTDY 1010	Principles of Safety and Risk Management	
INDSTENG 3730	Engineering Management	
<b>Engineering Topics</b>		
GENENG 1320	Engineering Computer Graphics	2
GENENG 2130	Engineering Mechanics-Statics	3
GENENG 2340	Mechanics of Materials	4
GENENG 2230 or GENENG 2630 or GENENG 2930 or MECHENG 2630	Engineering Mechanics-Dynamics Basic Thermoscience for Engineers Applications of Electrical Engineering Thermodynamics	3
GENENG 2820	Engineering Economy	2
CIVILENG 2000	Introduction to Infrastructure	3
CIVILENG 2220	Civil and Environmental Engineering Computer Applications	2
CIVILENG 2630	Elements of Surveying	3
CIVILENG 3020	Construction Engineering	3
CIVILENG 3030	Construction Materials	3
CIVILENG 3140	Introduction to Structural Engineering	4
CIVILENG 3300	Fluid Mechanics	4
ENVENG 3340	Environmental Engineering	4
CIVILENG 3530	Transportation Engineering	3
CIVILENG 3740	Geotechnical Engineering I	4
CIVILENG 4930	Civil and Environmental Engineering Design Project	3
<b>Civil Engineering Technical Electives</b>		
Select one of the following emphasis areas with a minimum of 14 credits		14
Total Credits		118-120

## CONSTRUCTION ENGINEERING EMPHASIS

Course	Title	Credits
CIVILENG 4020	Construction Estimates and Costs	3
CIVILENG 4030	Construction Equipment	2
CIVILENG 4040	Construction and Professional Management	3
CIVILENG/ENVENG 4###	Any 4000-level CIVILENG or ENVENG courses	6
Total Credits		14

## GEOTECHNICAL ENGINEERING EMPHASIS

Course	Title	Credits
CIVILENG 4160	Foundation Design	3
CIVILENG 4730	Geotechnical Engineering II	3
CIVILENG 4150	Reinforced Concrete Structures	3
or CIVILENG 4520	Pavement Design and Analysis	
or ENVENG 4310	Groundwater Hydrology	
CIVILENG/ENVENG 4###	Any 4000-level CIVILENG or ENVENG courses	5
Total Credits		14

## ENVIRONMENTAL ENGINEERING EMPHASIS

Course	Title	Credits
Select 4 of the following 7:		12
ENVENG 4300	Hydrology	
ENVENG 4310	Groundwater Hydrology	
ENVENG 4330	Air and Waste Management	
ENVENG 4400	Municipal Hydraulics	
ENVENG 4410	Wastewater Treatment and Management	
ENVENG 4420	Water Supply and Treatment	
CIVILENG 4640	Site Design and Stormwater Management	
CIVILENG/ENVENG 4###	Any 4000-level CIVILENG or ENVENG course	2-3
Total Credits		14-15

## STRUCTURAL ENGINEERING EMPHASIS

Course	Title	Credits
CIVILENG 4110	Intermediate Structural Engineering	3
CIVILENG 4150	Reinforced Concrete Structures	3
CIVILENG 4160	Foundation Design	3
CIVILENG 4230	Steel Design	3
CIVILENG 4250	Wood Structures	3
Total Credits		15

## TRANSPORTATION ENGINEERING EMPHASIS

Course	Title	Credits
Select at least three of the following:		8-9
ENVENG 4300	Hydrology	
CIVILENG 4500	Highway Engineering	
CIVILENG 4520	Pavement Design and Analysis	
CIVILENG 4550	Traffic Engineering	
CIVILENG 4560	Pavement Maintenance and Rehab	
CIVILENG/ENVENG 4###	Any 4000-level CIVILENG or ENVENG course	5-6
Total Credits		14

## MUNICIPAL ENGINEERING EMPHASIS

<b>Course</b>	<b>Title</b>	<b>Credits</b>
ENVENG 4300	Hydrology	3
ENVENG 4400	Municipal Hydraulics	3
CIVILENG 4640	Site Design and Stormwater Management	3
CIVILENG 4500 or CIVILENG 4550	Highway Engineering Traffic Engineering	3
CIVILENG 4520 or CIVILENG 4560	Pavement Design and Analysis Pavement Maintenance and Rehab	2-3
Total Credits		14