

# Civil Engineering (Environmental/Water Resources Track) Four Year Academic Plan

Name: \_\_\_\_\_

UID: \_\_\_\_\_

Year 1	Fall		
Gateway requirements include: ENGL 101, CHEM 135, MATH 141, PHYS 161 and an approved Distributive Studies course. (Directly admitted freshman must successfully complete these courses and ENES 100 by 45 UM credits.)	Course	Credit	Grade
	ENCE 100	1	
	ENES 102	3	
	CHEM 135	3	
	MATH 140 (AR)	4	
	ENGL 101 (AW)	3	
	<b>Total</b>	<b>14</b>	

Spring		
Course	Credit	Grade
ENES100 (SP)	3	
MATH 141	4	
PHYS 161 (NS)	3	
Humanities (HU)*	3	
Hist & Social Sciences (HS)*	3	
<b>Total</b>	<b>16</b>	

Year 2	Fall		
	Course	Credit	Grade
	ENCE 200	3	
	ENES 220	3	
	MATH 241	4	
	PHYS 260 and PHYS 261 (NL)	3 & 1	
	<b>Total</b>	<b>10</b>	

Spring		
Course	Credit	Grade
ENCE 201	3	
ENCE 215	3	
ENCE 305	3	
MATH 246	3	
ORAL COMM (OC)	3	
<b>Total</b>	<b>15</b>	

Year 3	Fall		
Second benchmark requirements must be completed one year after students are reviewed for the second benchmark and include: All required 100 and 200 level MATH and PHYS courses, ENES 100, 102 and 220, ENCE 100 and ENCE 200.	Course	Credit	Grade
	ENCE 302	3	
	ENCE 310	3	
	ENCE 360	3	
	BIOE 120	3	
	Science Requirement	3 or 4	
	<b>Total</b>	<b>15 or 16</b>	

Spring		
Course	Credit	Grade
ENCE 300	3	
ENCE 431	3	
ENGL 393 (PW)	3	
ENCE Breadth Elective	3	
Scholarship in Practice (SP)*	3	
<b>Total</b>	<b>15</b>	

Year 4	Fall		
Third benchmark requirements must be completed one year after students are reviewed for the second benchmark and include: ENGL 393, BIOE 120, ENCE 201, ENCE 302, ENCE 305, ENCE 310.	Course	Credit	Grade
	ENCE 411	3	
	ENCE 432	3	
	ENCE Breadth Elective	3	
	ENCE Elective (See advisor)	3	
	Hist & Social Sciences (HS)*	3	
<b>Total</b>	<b>15</b>		

Spring		
Course	Credit	Grade
ENCE 412	3	
ENCE 422	3	
ENCE 466	3	
ENCE Elective (See advisor)	3	
Humanities (HU)*	3	
<b>Total</b>	<b>15</b>	

\*All students must complete two Distributive Studies courses that are approved for I-series courses. The Understanding Plural Societies (UP) and Cultural Competence (CC) courses may also fulfill Distributive Studies categories.

# CIVIL ENGINEERING (ENVIRONMENTAL/WATER RESOURCES TRACK)

NAME: \_\_\_\_\_

UID: \_\_\_\_\_

## General Education Requirements Fundamental Studies

Requirements	Course	Credits	Grade
Academic Writing (AW)	ENGL 101	3	
Professional Writing (PW)	ENGL 393	3	
Oral Communication (OC)		3	
Math (MA)	-----	0	
Analytic Reasoning (AR)	MATH 140	0	

## Distributive Studies

Requirements	Course	Credits	Grade
Natural Science Lab (NL)	PHYS 260&261	0	
Natural Sciences (NS)	PHYS 161	0	
History/Social Sciences (HS)		3	
History/Social Sciences (HS)		3	
Humanities (HU)		3	
Humanities (HU)		3	
Scholarship in Practice (SP)	ENES100	0	
Scholarship in Practice (SP) non major		3	

## I-Series Normally double counted with Distributive Studies

Requirements	Course	Credits	Grade
I-Series (IS)			
I-Series (IS)			

## Diversity (overlap permitted with Distributive Studies and/or I-series)

Requirements	Course	Credits	Grade
Understanding Plural Societies (UP)			
Understanding Plural Societies (UP) or Cultural Competency (CC)			

## Basic Sciences

Requirements- <i>The cumulative average of these courses must be a 2.0</i>	Credits	Grade
CHEM 135 - Chem for Eng	3	
PHYS 161 - General Physics I	3	
PHYS 260 and PHYS 261 - Gen Physics II & Lab	3 & 1	
MATH 140 - Calculus I	4	
MATH 141- Calculus II	4	
MATH 241 - Calculus III	4	
MATH 246 - Differential Equations	3	
Science Requirement (BSCI 106, ENSP 101 or GEOL 100)	3 or 4	

## Engineering Sciences

Requirements- <i>The cumulative average of these courses must be a 2.0</i>	Credits	Grade
ENES 100 - Intro to Eng Design	3	
ENES 102 - Mechanics I	3	
ENES 220 - Mechanics II	3	

## Major Requirements

*The cumulative average of these courses must be a 2.0*

Requirements	Credits	Grade
BIOE 120 - Biology for Engineers	3	
ENCE 100 - Intro to Civil Eng	1	
ENCE 200 - Civil Eng Computation	3	
ENCE 201 - Eng Info Processing	3	
ENCE 215 - Eng for Sustainability	3	
ENCE 300 - Fund of Eng Materials	3	
ENCE 302 - Probability & Stat for CEE	3	
ENCE 305 - Fund of Eng Fluids	3	
ENCE 310 - Intro to Environ Eng	3	
ENCE 360 - Analysis of Civil Eng Systems	3	
ENCE 411 - Environ Eng Science	3	
ENCE 412 - Environ Eng Unit Operation	3	
ENCE 422 - Proj Cost Acct. & Econ	3	
ENCE 431 - Hydrologic Eng	3	
ENCE 432 - Ground Water Hydrology	3	
ENCE 466 - Design of Civil Eng Systems	3	
ENCE Breadth Elective*	3	
ENCE Breadth Elective*	3	
ENCE Elective*	3	
ENCE Elective*	3	
ENGL 393 - Technical Writing	3	

## Gateway requirements

Requirements	Credits	Grade
ENGL 101	3	
CHEM 135, 271 or 113	3	
MATH 141	4	
PHYS 161	3	
An approved Distributive Studies course	3	
ENES 100 (required only for Direct Admits)	3	

## Benchmark 2 requirements

Requirements	Credits	Grade
MATH 140, 141, 241 and 246	15	
PHYS 161, 260 and 261	7	
ENES 100, 102 and 220	9	
ENCE 100 and 200	2	

## Benchmark 3 requirements

Requirements	Credits	Grade
ENGL 393	3	
BIOE 120	3	
ENCE 201, 302, 305 and 310	12	

## Requirements for Graduation:

- At least 30 credits must be earned at UMD
- 15 of the final 30 credits must be earned at the 300-400 level
- 12 upper level major credits must be earned at UMD

Students must earn a minimum of 120 credits for the degree.