

# Bachelor of Science in Civil Engineering

## STARK STATE COLLEGE

### Curriculum for Associate of Science in Pre-Engineering - Civil Engineering (4205) Civil Engineering

### Courses Accepted for Transfer at the University of Mount Union

Stark State College		University of Mount Union	
Course	Credits	Course	Credits
<b>Fall 1</b>			
SSC101 Student Success	1	FYS 100 First Year Seminar	1
ENG124 College Composition	3	ENG 199 General Elective	3
MTH135 Pre-calculus	5	MTH 140 Precalculus	5
CHM141 Principles of Chem I	5	CHE 110N Foundations in Chemistry	5
	<b>14</b>		<b>14</b>
<b>Spring 1</b>			
MTH223 Calculus I	4	MTH 141 Calculus I	4
CHM142 Principles of Chem II	5	CHE 120N Concepts in Chemistry	5
PHL122 Ethics	3	PHL 199 Ethics	3
SOC225 Cultural Diversity	3	SOC 299 Cultural Diversity	3
	<b>15</b>		<b>15</b>
<b>Summer 1</b>			
MTH224 Calculus II	4	MTH 142 Calculus II	4
	<b>4</b>		<b>4</b>
<b>Fall 2</b>			
PHY221 Physics I	5	PHY 101N General Physics I	5
MTH225 Calculus III	4	MTH 241 Calculus III	4
MET124 Statics and Strength of Materials	4	EGE 210 <sup>1</sup> Statics and Dynamics	4
CST121 Modeling and Simulation	3	EGE 110 <sup>2</sup> Introduction to Engineering Profession	3
	<b>16</b>		<b>16</b>
<b>Spring 2</b>			
HIS122 U.S. History II from 1877	3	HST 199 U.S. History II from 1877	3
MET221 Adv. Strength of Materials	2	EGE 240 <sup>1</sup> Mechanics of Materials	2
MTH227 Ordinary Differential Equations	3	MTH 335 Differential Equations	3
DET125 Basic AutoCAD	3	EGE 120 <sup>2</sup> Introduction to Engineering Design	3
		EGE 130 <sup>2</sup> Computer-Aided Design	3
BUS221 Microeconomics	3	ECN 200S Microeconomics	3
Take EGE 220 at Mount Union in the Spring as a Transient student if accepted to Mount Union for Fall.			
	<b>14</b>		<b>14</b>
<b>Additional Courses needed prior to Mount Union</b>			
Thermal Science	2	EGE 220 Thermofluids I	4
Fluid Mechanics I	2		
CET121 Building Materials and Const. Methods	3	ECE 230 Construction Materials	3
MET223 Dynamics	2	EGE 210 <sup>1</sup> Statics and Dynamics	2
PHY222 Physics II	5	PHY 102 General Physics II	5
	<b>14</b>		<b>14</b>

Notes:

(1) MET124+MET221+MET223 (total of 8 credits) = EGE210 +EGE240 (total of 8 credits)

(2) CST121 + DET125 (total of 6 credits) = EGE110 + EGE120 + EGE130 (total of 6 credits)

Revised: 3/21/2022

## UNIVERSITY OF MOUNT UNION

### COURSES TO BE COMPLETED AT UNIVERSITY OF MOUNT UNION BACHELOR OF SCIENCE - CIVIL ENGINEERING

Fall 3		Credits	Spring 3		Credits
XXX 101 World Language 101	4	MTH 322 Linear Algebra	4		
ECE 310 Engineering Surveying	2	XXX 102 World Lanaguage 102	4		
ECE 330 Environmental Engineering	4	EGE 320G Global Engg. (IC Explor. - Global)	4		
ECE 350 Geotechnical Engineering	4	ECE 340 Structural Analysis	4		
ECE 370 Construction Engg. and Mgt.	4	ECE 360 Water Resources Engg.	4		
	<b>18</b>		<b>20</b>		
<b>Fall 4</b>			<b>Spring 4</b>		
ECE 320 Transp. Engr. & Traffic Analys.	2	MTH 305 Intro. Prob. & Stats. for Engg.	2		
ECE 420 Structural Design	4	EGE 310 Product Design & Devel.	4		
ECE 440 Sustainable Infrastr. Design	2	ECE 460 Geotechnical Engr. Design	2		
ECE 470 Construction Mthds. & Equip.	2	ECE 490 CE Capstone Design II	4		
ECE 480 CE Capstone Design I	2	XXX XXX Science Elective	4		
XXX XXXV IC Exploration - Values and Reas.	4	CAP 400 IC Capstone	4		
	<b>16</b>		<b>20</b>		

#### Summary

Civil Engineering Major	58
Math Proficiency	0
World Language Proficiency (addt.credits)	8
XXX XXXV "V" Exploration	4
XXX XXXG "G" Exploration	0
XXX XXX IC Capstone	4
<b>University of Mount Union Coursework</b>	<b>74</b>
<b>AS STARK STATE (minimum)</b>	<b>63-77</b>
<b>Degree Total</b>	<b>137-151</b>

#### University of Mount Union Transfer Notes:

Total minimum number of hours needed to graduate is 128.

Math Proficiency is met with AS from Stark State

Student must complete a minimum of 48 hours at UMU, of which a minimum of 16 in the major and 6 in the minor are required.

A minor is required at UMU.

World language proficiency can be met with a proficiency exam OR by taking a 200 level course in SPN or CHN at Stark State. If students tested proficient, or successfully passed these courses, no courses would be needed at UMU. If not, the student would need to take one or two world language courses.

MTH 322 + MTH 335 = MTH 333 Differential Equations and Linear Algebra requirement.