## **BS Civil Engineering - University of St. Thomas** Normandale Community College Plus 2 Plan of Study

Students who complete the following courses at Normandale Community College are in a good position to complete a Bachelor of Science degree in Civil Engineering with two more years of study at the University of St. Thomas.

Courses Taken at Normandale Community College – Major Requirements					
Normandale Course #	Normandale Course Title	Cr.	St. Thomas Course Equivalence		
MATH 1080	Intro to Statistics	4	STAT 220 (in future may require addtnl lab)		
MATH 1510	Calculus 1	5	MATH 113		
MATH 1520	Calculus 2	5	MATH 114		
MATH 2520	Differential Eqns. & Lin. Algebra	5	MATH 210		
PHYS 1121	Physics I for Scientists and Engrs.	5	PHYS 211		
PHYS 1122	Physics II for Scientists and Engrs.	5	PHYS 212		
CHEM 1061	Principles of Chemistry	5	CHEM 109		
ENGR 1020	Intro to Engineering Design	4	ENGR 100 (2cr)		
ENGR 2235	Statics	3	ENGR 220		
ENGR 2331	Deformable Bodies	3	ENGR 221 after completion of 1 cr. lab at UST		
ENGR 2236	Dynamics	3	ENGR 222 (2 cr)		
<b>Total Credits</b>		47			

Courses Taken at Normandale – UST Core Curriculum Requirements			
Core Requirement	Credits	Normandale Course Options	
Language and Culture	0-10		
Literature and Writing	4	Normandale Course Transfer Guides including St. Thomas	
Social Analysis	3-4	Core Curriculum and MnTC Goal Areas are available at:	
Fine Arts	3	https://www.stthomas.edu/admissions/undergraduate/transf	
Historical Studies	4	er/community-college-course-guides/index.html	
Total Credits	14-25		

Students are not required to complete all the coursework on page 1 before transferring to the University of St. Thomas. We invite prospective students to tour the School of Engineering and meet with faculty and financial aid staff to determine the best time for transfer.

However, if a student does complete all the coursework on page 1, the remaining courses at the University of St. Thomas would require two years of full-time study. Courses are listed below, and a sample 2-year plan of study is provided on page 3.



## **BS Civil Engineering - University of St. Thomas Normandale Community College Plus 2 Plan of Study**

Courses Taken at University of St. Thomas – Major Requirements				
UST Course #	University of St. Thomas Course Title	Credits		
GEOL 163	Applied Geology	4		
ENGR 160	Surveying	2		
ENGR 162	Introduction to Engineering Graphics	1		
ENGR 221	Mechanics of Materials – Lab after Transfer (LAT)	1		
ENGR 362	Construction and Engineering Economics	4		
ENGR 363	Construction Materials	4		
ENGR 364	Structural Analysis	4		
ENGR 365	Design of Steel and Concrete Structures	4		
ENGR 368	Fluid Mechanics for Civil Engineers	4		
ENGR 463	Soil Mechanics and Foundations	4		
ENGR 466	Transportation Engineering	4		
ENGR 467	Water Resources	4		
ENGR 468	Environmental Engineering	4		
ENGR XXX	Engineering Elective	2		
ENGR 480	Engineering Design Clinic I	4		
ENGR 481	Engineering Design Clinic II	4		
Total Credits		51		

Courses Taken at University of St. Thomas – Core Requirements			
Core Requirement	Credits		
Philosophy and Theology	12		
Integrations in the Humanities	8		
Total Credits	20		

Note: Some courses must also satisfy flagged requirements (DISJ, Global, WAC). Students with fewer than 60 credits at transfer must also complete First Year Experience Requirements. For more information on the Core Curriculum, see: https://www.stthomas.edu/core-curriculum/courses/index.html



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Prop	Proposed Schedule for Final Two Years at University of St. Thomas						
	Fall	Cr	Spring	Cr	Summer / J-term	Cr	
1 <sup>st</sup> Yr	ENGR 362 Construction and	4	ENGR 363 Construction	4			
	Engrg. Economic Analysis (Lab)  ENGR 364 Structural Analysis	4	Materials (Lab)  GEOL 163 Applied Geology (Lab)	4	CORE	4	
	ENGR 368 Fluid Mechanics for Civil Engineers (Lab)  CORE Requirement  ENGR 160 Surveying		CORE Requirement	4	Requirement		
			<b>ENGR 365</b> Design of Steel and Concrete Structures (Lab)	4			
			ENGR 221 Mechanics LAT ENGR 162 Intro Engr Graphics	1			
	Total Credits	18	Total Credits	18	Total Credits	4	
2 <sup>nd</sup> Yr	<b>ENGR 480</b> Engineering Design Clinic I	4	<b>ENGR 481</b> Engineering Design Clinic II	4			
	ENGR 467 Water Resources  ENGR 463 Soil Mechanics and Foundations (Lab)		ENGR 468 Environmental Engineering	4			
			ENGR 466 Transportation Engineering	4			
	ENGR XXX Engineering Elective	2	CORE Requirement	4			
	CORE Requirement	4					
	Total Credits	18	Total Credits	16	Total Credits	0	

Program Credits		
Major Requirements completed at Normandale	47	
Core Requirements completed at Normandale *	14-25	
Major Requirements completed at University of St Thomas	54	
Core Requirements completed at University of St Thomas	20	
Total Credits	135 - 146	

<sup>\*</sup>The number of credits is dependent upon the student's proficiency in a second language upon entering the program.

This guide is accurate to the best of our knowledge and ability at the time of publication but is subject to change.

