

BS Electrical Engineering - University of St. Thomas Normandale Community College Plus 2.5 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 Electrical Engineering with 2 ½ 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
ENGR 1020	Intro. to Engineering Design	4	ENGR 100
ENGR 2301 & ENGR 2302	Intro. to Digital Logic Design A & Intro. to Digital Logic Design B	2 2	ENGR 230
CSCI 1113 (or CSCI 1111)	Introduction to C/C++ for Engrs.	4	CISC 130
MATH 1510	Calculus 1	5	MATH 113
MATH 1520	Calculus 2	5	MATH 114
MATH 2510	Calculus 3: Multivariable Calculus	5	MATH 200
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
Total Credits		42	

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

However, if a student does complete all the coursework on page 1, the remaining courses at the University of St. Thomas would require 2 ½ years of full-time study. Courses are listed below, and a sample 2 ½-year plan of study is provided on page 3.

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Courses Taken at University of St. Thomas – Major Requirements		
UST Course #	University of St. Thomas Course Title	Credits
ENGR 175	Intro to Electrical & Computer Engineering	2
ENGR 240	Circuit Analysis	4
ENGR 331	Designing with Microprocessors	4
ENGR 340	Signals & Systems	4
ENGR 342	Electromagnetic Fields and Waves	4
ENGR 345	Electronics I	4
ENGR 346	Electronics II	4
ENGR 410	Control Systems and Automation	4
XXX xxx	Technical Electives (see UST Catalog)	12
ENGR 480	Engineering Design Clinic I	4
ENGR 481	Engineering Design Clinic II	4
PHYS 225	Modern Physics	4
PHYS 341	Electricity & Magnetism	4
Total Credits		58

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

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Proposed Schedule for Final 2 ½ Years at University of St. Thomas						
	Fall	Cr	Spring	Cr	Summer / J-term	Cr
1 st Yr			ENGR 175 Intro to Electrical & Computer Engineering	2		
			ENGR 240 Circuit Analysis	4		
			PHYS 225 Modern Physics (Spring Only)	4		
			CORE Requirement	4		
			Total Credits	14		
2 nd Yr		4	ENGR 331 Designing with Microprocessors	4		
	ENGR 345 Electronics I (Fall only)	4	ENGR 410 Control Systems and Automation	4		
	XXX Technical Elective	4	CORE Requirement	4		
	ENGR 340 Signals & Systems (Fall only)	4	ENGR 346 Electronics II (Spring only)	4		
	Total Credits	16	Total Credits	16		
3 rd Yr	ENGR 480 Engineering Design Clinic I	4	ENGR 481 Engineering Design Clinic II	4		
	PHYS 341 Electricity & Magnetism (Fall only)	4	ENGR 342 Electromagnetic Fields & Waves (Spring only)	4		
	XXX Technical Elective	4	XXX Technical Elective	4		
	CORE Requirement	4	CORE Requirement	4		
	Total Credits	16	Total Credits	16		

Program Credits	
Major Requirements completed at Normandale	42
Core Requirements completed at Normandale *	14-25
Major Requirements completed at University of St Thomas	58
Core Requirements completed at University of St Thomas	20
Total Credits	134 - 145

*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.