BS Electrical Engineering - University of St. Thomas
Inver Hills Community College Plus 2.5 Plan of Study

Students who complete the following courses at Inver Hills 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 Inver Hills Community College – Major Requirements			
Inver Hills Course #	Inver Hills Course Title	Cr.	St. Thomas Course Equivalence
ENGR 1000	Orientation to Engineering	1	ENGR 100
CS 1119	Computer Programming with C++	4	CISC 130
MATH 1133	Calculus I	5	MATH 113
MATH 1134	Calculus II	5	MATH 114
MATH 2219	Multivariable Calculus	4	MATH 200
MATH 2222	Intro to Differential Equations	3	MATH 210
PHYS 1081	Calculus Based Physics I	5	PHYS 211
PHYS 1082	Calculus Based Physics II	5	PHYS 212
Total Credits		32	

Courses Taken at Inver Hills – UST Core Curriculum Requirements		
Core Requirement	Credits	Inver Hills Course Options
Language and Culture	0-10	To find courses that satisfy the University of St. Thomas **New UG Core** at your institution, use the "Lookup By Core Area" option in our online Transfer Credit Tool. https://www.stthomas.edu/admissions/undergraduate/transfer-credit-tool/index.html
Literature and Writing	4	
Social Analysis	3	
Fine Arts	3	
Historical Studies	4	
Total Credits	14-24	

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 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	Introduction to Electrical & Computer Engineering	2
ENGR 230	Digital Design	4
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		62

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/academics/core-curriculum/courses/index.html	

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Proposed Schedule for Final 2 ½ Years at University of St. Thomas						
	Fall	Cr	Spring	Cr	Summer / J-term	Cr
1st Yr			**ENGR** 175 Intro. to Electrical & Computer Engineering	2		
			ENGR 240 Circuit Analysis	4	**CORE** Requirement	4
			PHYS 225 Modern Physics (Spring Only)	4		
			ENGR 230 Digital Design	4		
			Total Credits	14		4
2nd Yr	**XXX** Technical Elective	4	**ENGR 331** Designing with Microprocessors	4		
	ENGR 345 Electronics I (Fall only)	4	**ENGR 410** Control Systems and Automation	4		
	ENGR 340 Signals & Systems (Fall only)	4	**ENGR 346** Electronics II (Spring only)	4		
	CORE Requirement	4	**CORE** Requirement	4		
	Total Credits	16	Total Credits	16		
3rd 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 Inver Hills	32
Core Requirements completed at Inver Hills*	14-24
Major Requirements completed at University of St Thomas	62
Core Requirements completed at University of St Thomas	20
Total Credits	133 – 149

*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.