

# BS Electrical Engineering – University of St. Thomas Anoka-Ramsey Community College Plus 2.5 Plan of Study

Students who complete the following courses at Anoka-Ramsey 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 Anoka-Ramsey Community College – Major Requirements			
Anoka-Ramsey Course #	Anoka-Ramsey Course Title	Cr.	St. Thomas Course Equivalence
ENGR 1100	Introduction to Engineering	2	ENGR 100
ENGR 2218	Digital Logic	4	ENGR 230
CSCI 1106	Intro to Programming	4	CISC 130
MATH 1400	Calculus I	5	MATH 113
MATH 1401	Calculus II	5	MATH 114
MATH 2220	Multivariable Calculus & Vector Analysis	5	MATH 200
MATH 2210	Differential Equations	4	MATH 210
PHYS 1327	College Physics I	6	PHYS 211
PHYS 1328	College Physics II	6	PHYS 212
<b>Total Credits</b>		<b>41</b>	

Courses Taken at Anoka-Ramsey – UST Core Curriculum Requirements		
Core Requirement	Credits	Anoka-Ramsey Course Options
Language and Culture	0-10	To find courses that satisfy the University of St. Thomas <b>New UG Core</b> at your institution, use the “Lookup By Core Area” option in our online Transfer Credit Tool. <a href="https://www.stthomas.edu/admissions/undergraduate/transfer-credit-tool/index.html">https://www.stthomas.edu/admissions/undergraduate/transfer-credit-tool/index.html</a>
Literature and Writing	4	
Social Analysis	3-4	
Fine Arts	3	
Historical Studies	3-4	
<b>Total Credits</b>	<b>13-25</b>	

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 on page 2, 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 and 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
<b>Total Credits</b>		<b>58</b>

Courses Taken at University of St. Thomas – Core Requirements	
Core Requirement	Credits
Philosophy and Theology	12
Integrations in the Humanities	8
<b>Total Credits</b>	<b>20</b>
<p>Note: Some courses must satisfy also 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:  <a href="https://www.stthomas.edu/academics/core-curriculum/courses/index.html">https://www.stthomas.edu/academics/core-curriculum/courses/index.html</a></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 <sup>st</sup> Yr			<b>ENGR 175</b> Intro. to Electrical & Computer Engineering	2		
			<b>ENGR 240</b> Circuit Analysis	4		
			<b>PHYS 225</b> Modern Physics (Spring Only)	4		
			<b>CORE</b> Requirement	4		
			<b>CORE</b> Requirement	4		
				<b>Total Credits</b>	<b>18</b>	
2 <sup>nd</sup> Yr	<b>XXX</b> Technical Elective	4	<b>ENGR 331</b> Designing with Microprocessors	4		
	<b>ENGR 345</b> Electronics I (Fall only)	4	<b>ENGR 410</b> Control Systems and Automation	4		
	<b>XXX</b> Technical Elective	4	<b>CORE</b> Requirement	4		
	<b>ENGR 340</b> Signals & Systems (Fall only)	4	<b>ENGR 346</b> Electronics II (Spring only)	4		
		<b>Total Credits</b>	<b>16</b>	<b>Total Credits</b>	<b>16</b>	
3 <sup>rd</sup> Yr	<b>ENGR 480</b> Engineering Design Clinic I	4	<b>ENGR 481</b> Engineering Design Clinic II	4		
	<b>PHYS 341</b> Electricity & Magnetism (Fall only)	4	<b>ENGR 342</b> Electromagnetic Fields & Waves (Spring only)	4		
	<b>XXX</b> Technical Elective	4	<b>XXX</b> Technical Elective	4		
	<b>CORE</b> Requirement	4	<b>CORE</b> Requirement	4		
		<b>Total Credits</b>	<b>16</b>	<b>Total Credits</b>	<b>16</b>	

Program Credits	
Major Requirements completed at Anoka-Ramsey	41
Core Requirements completed at Anoka-Ramsey*	13 – 25
Major Requirements completed at University of St Thomas	58
Core Requirements completed at University of St Thomas	20
	<b>Total Credits</b>
	<b>134 - 146</b>

\*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.*