

## BS Computer 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 Computer 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 2100 (or CSCI 2100)	Discrete Mathematics	4	MATH 128
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>40</b>	

Courses Taken at Anoka-Ramsey – UST Core Curriculum Requirements		
Core Requirement	Credits	Anoka-Ramsey Course Options
Language and Culture	0-10	Anoka-Ramsey Course Transfer Guides including St. Thomas Core Curriculum and MnTC Goal Areas are available at: <a href="https://www.stthomas.edu/admissions/undergraduate/transfer/community-college-course-guides/index.html">https://www.stthomas.edu/admissions/undergraduate/transfer/community-college-course-guides/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 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 & Computer Engineering	2
ENGR 240	Circuit Analysis	4
ENGR 330	Microprocessor Architectures	4
ENGR 331	Designing with Microprocessors	4
ENGR 345	Electronics I	4
ENGR 431	Design of Embedded Systems	4
ENGR 432	Current Trends in Computing Systems	4
ENGR 480	Engineering Design Clinic I	4
ENGR 481	Engineering Design Clinic II	4
CISC 230	Object-Oriented Design and Programming	4
CISC 231	Data Structures using Object-Oriented Design	4
XXX	Sci/Math and Technical Electives (see UST Catalog)	16
<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 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: <a href="https://www.stthomas.edu/core-curriculum/courses/index.html">https://www.stthomas.edu/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		
			Science/Math Elective I (PHYS/CHEM/BIO/MATH/STAT)	4		
			<b>CORE</b> Requirement	4		
			<b>Total Credits</b>	<b>14</b>		
2 <sup>nd</sup> Yr	<b>ENGR 330</b> Microprocessor Architectures (or CISC 340 in Spring)	4	<b>ENGR 331</b> Designing with Microprocessors (Spring only)	4		
	<b>ENGR 345</b> Electronics I (Fall only)	4	<b>CORE</b> Requirement	4		
	<b>CISC 230</b> Object-Oriented Design and Programming	4	<b>CISC 231</b> Data Structures Using Object-Oriented Design	4		
	<b>CORE</b> Requirement	4	Technical Elective I ENGR/CISC 2XX, 3XX, 4XX	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		
	Science/Math Elective II (PHYS/CHEM/BIO/MATH/STAT)	4	<b>ENGR 432</b> Current Trends in Computing Systems	4		
	<b>ENGR 431</b> Design of Embedded Systems	4	Technical Elective II ENGR/CISC 2XX, 3XX, 4XX	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	40
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>131 - 143</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.*