

BS Mechanical Engineering – University of St. Thomas Anoka-Ramsey Community College Plus 2 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 Mechanical Engineering with two 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 2219	Linear Circuits 1	4	ENGR 350 (for ME students only)
ENGR 2241	Statics	3	ENGR 220
ENGR 2243	Mechanics of Materials	3	ENGR 221 after completion of 1 cr. lab at UST
ENGR 2242	Dynamics	3	ENGR 322 after completion of 1 cr. lab at UST
ENGR 2240	Thermodynamics	3	ENGR 381 after completion of 1 cr. Lab at UST
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
CHEM 1061	Principles of Chemistry	4	CHEM 109
Total Credits		57	

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 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	3-4	
Fine Arts	3	
Historical Studies	3-4	
Total Credits		13-25

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 two years of full-time study. Courses are listed on page 2, and a sample 2-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 255	Fabrication Lab (complete before or concurrent with ENGR 320)	0
ENGR 170	Mechanical Engineering Graphics	2
ENGR 221	Mechanics of Materials – Lab After Transfer (LAT)	1
ENGR 320	Machine Design and Synthesis	4
ENGR 322	Dynamics – Lab After Transfer (LAT)	1
ENGR 361	Engineering Materials	4
ENGR 371	Manufacturing Processes and Statistical Control	4
ENGR 381	Thermodynamics – Lab After Transfer (LAT)	1
ENGR 383	Fluid Mechanics	4
ENGR 384	Heat Transfer	4
ENGR 410	Control Systems and Automation	4
ENGR 480	Engineering Design Clinic I	4
ENGR 481	Engineering Design Clinic II	4
ENGR xxx	Engineering Elective	4
Total Credits		41

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 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: https://www.stthomas.edu/academics/core-curriculum/courses/index.html</p>	

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Proposed Schedule for Final Two Years at University of St. Thomas						
	Fall	Cr	Spring	Cr	Summer / J-term	Cr
1 st Yr	ENGR 170 Mechanical Engineering Graphics	2	ENGR 320** Machine Design & Synthesis (LAB)	4		
	ENGR 371 Manufacturing Processes & Statistical Control (LAB)	4	ENGR 255* Fabrication Skills (Lab Certification)	0		
	ENGR 381 Thermodynamics LAT	1	ENGR 383 Fluid Mechanics (LAB)	4		
	ENGR 221 Mechanics of Materials LAT	1	CORE Requirement	4		
	ENGR 322 Dynamics – LAT	1	CORE Requirement	4		
	CORE Requirement	4				
	Total Credits		13	Total Credits	16	
	Fall	Cr	Spring	Cr	Summer / J-term	Cr
2 nd Yr	ENGR 480 Engineering Design Clinic I	4	ENGR 481 Engineering Design Clinic II	4		
	ENGR 410 Control Systems and Automation (LAB)	4	ENGR 384 Heat Transfer (LAB)	4		
	ENGR 361 Engineering Materials (LAB)	4	ENGR XXX Engineering Elective	4		
	CORE Requirement	4	CORE Requirement	4		
	Total Credits		16	Total Credits	16	

**ENGR 255 must be taken before ENGR 320 or concurrently in the first half of the semester with ENGR 320.

Program Credits	
Major Requirements completed at Anoka-Ramsey	57
Core Requirements completed at Anoka-Ramsey *	13 – 25
Major Requirements completed at University of St Thomas	41
Core Requirements completed at University of St Thomas	20
Total Credits	131 - 143

*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.