

BS Mechanical Engineering - University of St. Thomas

Century College Plus 2 Plan of Study

Students who complete the following courses at Century 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 Century College – Major Requirements			
Century Course #	Century Course Title	Cr.	St. Thomas Course Equivalence
ECAD 2053	Introduction to SolidWorks	3	ENGR 171
CSCI 1081	Programming Fundamentals	4	CISC 130
MATH 1081	Single Variable Calculus I	5	MATH 113
MATH 1082	Single Variable Calculus II	5	MATH 114
MATH 2081	Multivariable Calculus	5	MATH 200
MATH 2082	Linear Algebra & Differential Eqns.	5	MATH 210
PHYS 1081	Introductory Physics I	5	PHYS 111
PHYS 1082	Introductory Physics II	5	PHYS 112
ENGR 1020	Introduction to Engineering	4	ENGR 150
ENGR 1080	Statics	3	ENGR 220
ENGR 2085	Deformable Bodies	3	ENGR 221 after completion of 1 cr. lab at UST
ENGR 2080	Dynamics	3	ENGR 322 after completion of 1 cr. lab at UST
ENGR 2070	Thermodynamics	3	ENGR 381 after completion of 1 cr. lab at UST
Total Credits		53	

Courses Taken at Century – Core Curriculum Requirements***		
Core Requirement	Credits	Century Course Options
Modern and Classical Language*	0-15	SPAN 1011, 1012, 2021
Literature and Writing – Course 1	4	ENGL 1021
Literature and Writing – Course 2	3	ENGL 2013, 2014, 2015, 2018, 2043, 2051, 2055, 2057, 2058, 2061, 2062, 2063, 2072, 2073, 2075, 2077, 2085, 2095
Social Sciences**	3-4	ECON 1021, ECON 1023, GEOG 1023 ^{HD} , GEOG 1031 ^{HD} , PSYC 1020, SOC 1020 ^{HD} , SOC 1041 ^{HD}
Fine Arts**	3	ART 1021, ART 1022, HUM 2061, MUSC 1035, MUSC 1045, MUSC 2051 ^{HD} , THTR 1020
History**	3	HIST 1031, 1032, 1061 ^{HD} , 2051
Total Credits	16-32	
NOTES: *Students who have a strong background in a language other than English may place out of one or more semesters of St. Thomas' Modern and Classical Language requirement if they demonstrate adequate proficiency on a placement exam. Spanish is an example of an accepted language. **One of the courses labeled HD can be selected to simultaneously satisfy UST's Human Diversity requirement ***UST/Century Course transfer guides including UST Core Curriculum and MnTC Goal Areas are available at https://www.stthomas.edu/tr/credit/communitycollegcourseplans/		

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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 below, and a sample 2-year plan of study at St. Thomas is provided on page 3.

Courses Taken at University of St. Thomas – Major Requirements		
UST Course #	University of St. Thomas Course Title	Credits
CHEM 109	General Chemistry for Engineers	4
ENGR 221	Mechanics of Materials - LAB only	1
ENGR 320	Machine Design and Synthesis	4
ENGR 322	Dynamics – LAB only	1
ENGR 350	Introduction to Electronics	4
ENGR 361	Engineering Materials	4
ENGR 371	Manufacturing Processes and Statistical Control	4
ENGR 381	Thermodynamics – LAB only	1
ENGR 382	Heat Transfer	4
ENGR 383	Fluid Mechanics	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		47

Courses Taken at University of St. Thomas – Core Requirements		
Core Requirement	UST Course Options	Credits
Faith and Catholic Traditions – Course 1	THEO 101	4
Faith and Catholic Traditions – Course 2	THEO 2XX or THEO 3XX	4
Faith and Catholic Traditions – Course 3	THEO 4XX	4
Moral and Philosophical Reasoning – Course 1	PHIL 115	4
Moral and Philosophical Reasoning – Course 2	PHIL 214 or PHIL 215	4
Total Credits		20

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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 371 Manufacturing Processes & Statistical Control	4	ENGR 320 Machine Design & Synthesis	4	THEO 2XX or 3XX**	4
	ENGR 350 Introduction to Electronics	4	ENGR 410 Control Systems and Automation	4		
	CHEM 109 General Chemistry for Engineers	4	THEO 101 The Christian Theological Tradition	4		
	Final language course if needed (SPAN 211, FREN 211, etc.)	4	ENGR 381 Thermodynamics – Lab only	1		
	ENGR 221 Mechanics of Materials – Lab only	1	ENGR 322 Dynamics – Lab only	1		
	Total Credits	17	Total Credits	14		
2 nd Yr	ENGR 480 Engineering Design Clinic I	4	ENGR 481 Engineering Design Clinic II	4	PHIL 214 Introductory Ethics	4
	ENGR 382 Heat Transfer	4	ENGR 383 Fluid Mechanics	4		
	ENGR 361 Engineering Materials (LAB)	4	ENGR XXX Engineering Elective	4		
	PHIL 115 Philosophy of the Human Person	4	THEO 4XX**	4		
	Total Credits	16	Total Credits	16		

**If human diversity requirement has not yet been fulfilled, choose a Theology course that will meet the requirement.

Program Credits	
Major Requirements completed at Century	53
Core Requirements completed at Century	16 – 32
Major Requirements completed at University of St Thomas	47
Core Requirements completed at University of St Thomas	20
Total Credits	136 – 151

The number of credits to complete a BSME is dependent 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.