B.S. in Mechanical Engineering
Plan of Study – Math 108

	Fall	Spring	Summer/ J-Term
Year 1	**ENGR 150** Intro to Engineering		
	MATH 108 Calculus with Review I	**MATH 109** Calculus with Review II	**THEO 101** The Christian Theological Tradition
	ENGR 171 Engineering Graphics and Design ⟷	**CISC 130** Introduction to Programming and Problem Solving in the Sciences (LAB) (or **CISC 131**)	**MATH 114** Calculus II (summer)
	ENGL 121 Critical Thinking: Literature & Writing	**CHEM 109** General Chemistry for Engineers (LAB)	
	Foreign Language 111*	Foreign Language 112*	
Year 2	**PHYS 211** Classical Physics I	**PHYS 212** Classical Physics II	**HIST 1XX**
	MATH 200 Multi-Variable Calculus	**ENGR 220** Statics	
	ENGR 361 Engineering Materials (LAB)	**MATH 210** Intro to Differential Equations and Systems	
	Foreign Language 211*	**PHIL 115** Philosophy of the Human Person	
Year 3	**ENGR 255** Fabrication Lab***		
	ENGR 221 Mechanics of Materials (LAB)	**ENGR 320** Machine Design & Synthesis (LAB)	Social Sciences Elective **
	ENGR 371 Manufacturing Processes & Statistical Control	**ENGR 350** Introduction to Electronics (LAB)	
	ENGR 381 Thermodynamics (LAB)	**ENGR 322** Dynamics (LAB)	
	ENGL 20X Texts in Conversation	Fine Arts Elective**	
Year 4	**ENGR 383** Fluid Mechanics (LAB)	**ENGR 384** Heat Transfer (LAB)	**THEO 4XX**
	ENGR 410 Control Systems and Automation (LAB) ⟷	**ENGR XXX** Engineering Elective	
	ENGR 480 Engineering Design Clinic I	**ENGR 481** Engineering Design Clinic II	
	THEO 2XX or 3XX**	**PHIL 214** Introductory Ethics	

* May place out of one or more semesters if proficient at 3rd Level

** May satisfy human diversity requirement

*** Lab skills must be retained for ENGR 320. Recommended to be taken in semester immediately preceding or (with instructor permission) in first half of semester concurrent with ENGR 320. May be taken in earlier semesters if student maintains proficiency with lab shop skills for ENGR 320.

- ⟷ denotes that the two courses can be interchanged

Rev: 10/20/19

Complete Course Listing:

Engineering Courses:
ENGR 150 – Introduction to Engineering (1 credit)
ENGR 155 – Fabrication Lab (0 credits)
ENGR 171 – Engineering Graphics and Design (4 credits)
ENGR 220 – Statics (4 credits)
ENGR 221 – Mechanics of Materials (4 credits)
ENGR 320 – Machine Design and Synthesis (4 credits)
ENGR 322 – Dynamics (4 credits)
ENGR 350 – Introduction to Electronics (4 credits)
ENGR 361 – Engineering Materials (4 credits)
ENGR 371 – Manufacturing Processes and Statistical Control (4 credits)
ENGR 381 – Thermodynamics (4 credits)
ENGR 383 – Fluid Mechanics (4 credits)
ENGR 384 – Heat Transfer (4 credits)
ENGR 410 – Control Systems and Automation (4 credits)
ENGR 480 – Engineering Design Clinic I (4 credits)
ENGR 481 – Engineering Design Clinic II (4 credits)
4 Credits of Engineering Electives

61 Engineering Credits

Allied Requirements:
MATH 108 – Calculus with Review I (4 credits)
MATH 109 – Calculus with Review II (4 credits)
MATH 114 – Calculus II (4 credits)
MATH 200 – Multi-Variable Calculus (4 credits)
MATH 210 – Introduction to Differential Equations and Systems (4 credits)
PHYS 211 – Classical Physics I (4 credits)
PHYS 212 – Classical Physics II (4 credits)
CHEM 109 – General Chemistry for Engineers (4 credits)
CISC 130 – Introduction to Programming and Problem Solving in the Sciences (4 credits)

36 allied requirement credits

Core Curriculum
Three courses in foreign language (12 credits)
Two courses in English (8 credits)
Three courses in Theology** (12 credits)
Two courses in Philosophy (8 credits)
One course in the Social Sciences** (4 credits)
One Fine Arts course** (4 credits)
One History course (4 credits)
**One of these courses must satisfy the human diversity requirement

52 core curriculum credits

Total Credit Count: 149 (61 engineering credits + 88 non-engineering credits)