

2023-2024

**B.S in MECHANICAL ENGINEERING**



**GRACE CORE (39 credits)**

*Students will integrate faith and learning across disciplines, demonstrate foundational knowledge and ways of knowing, cultivate characteristics of maturity in relationships with God, others, self, and the world, and apply knowledge to all aspects of life through intellectual and practical skills.*

**1000-Level Courses**

**First-Year Learning Communities**

FYE 1000	First-Year Foundations	3
BIB 1050	Exploring the Bible	3
PSY 1200	Essentials of Behavioral Science	3
HIS 1050	Current Issues in Historical Context	3

**First-Year Learning Competencies**

ENG 1100	Effective Writing	3
COM 1100	Public Speaking	3

**2000-Level Courses**

HUM 2100	Creative Arts & Culture	3
@ HUM 2000	Global Perspectives	3
SCI 2030	Faith, Science, & Reason	3
HUM 2010-30	Cross-Cultural Field Experience	0
@ BIB 2010	Scripture and Interpretation	3

**3000-Level Courses**

ECN 3000	Consumer Economics	3
PHI 3010	Christianity and Critical Thinking	3
@ BIB 3300	Essential Doctrinal Themes	3

**ADDITIONAL GENERAL EDUCATION--B.S. DEGREE (7 credits)**

**Satisfies B.S. Degree**

MAT 1000+	MAT 3130 Linear Algebra	3
@ CHM 1610	Chemistry I	4
@ CHM 1620	Chemistry I Lab	0

**THE MAJOR (91 credits)**

**MATH AND SCIENCE REQUIREMENTS (24 Cr)**

MAT 1230	Calculus I	4
MAT 1240	Calculus I Lab	0
@ MAT 1250	Calculus II	3
@ MAT 2250	Calculus III	3
@ MAT 2280	Differential Equations	3
@ PHY 2240	University Physics I	4
@ PHY 2250	University Physics I Lab	0
@ PHY 2260	University Physics II	4
@ PHY 2270	University Physics II Lab	0
MAT 3200	Probability and Statistics	3

**ENGINEERING SCIENCE REQUIREMENTS (25 Cr)**

@ MEG 2110	Engineering Statics	3
@ MEG 2150	Strength of Materials	3
@ MEG 2200	Dynamics	3
@ MEG 2300	Engineering Materials	3
@ MEG 2400	Electrical Science (Circuits)	4
@ MEG 2500	Thermodynamics	3
@ MEG 2600	Heat Transfer	3
@ MEG 2700	Fluid Mechanics	3

**ENGINEERING FUNDAMENTALS (36 Cr)**

MEG 1200	Intro to Mechanical Engineering	4
MEG 1400	Intro to Programming MATLAB	2
MEG 1900	Engineering Modeling & Tolerancing	3
@ MEG 1950	Industrial Machining & Measurements	3
@ MEG 2800	Kinematic & linkage design	3
@ MEG 2900	Machine Component Design	3
@ MEG 3100	Experimental Methods	3
@ MEG 3200	Control Systems	3
@ MEG 3300	Advanced Manufacturing processes	2
@ MEG 3400	Intro to Finite Element Analysis	3
@ MEG 4100	Senior Engineering Project	3
@ MEG 4110	Senior Engineering Project	3
MEG 2000	Engineering Internship	1
MEG 1000	Engineering service	0

**Technical Electives (6 Cr)**

**Choose 6 additional credits of MEG courses 6**

**GRADUATION REQUIREMENTS**

To receive a degree, each student must satisfy checksheet requirements, earn 137 credit hours, have earned a grade of C- or better in major courses while maintaining a 2.2 GPA in major courses, and a GPA of 2.0 overall. It is the student's responsibility to work with his/her advisor and monitor progress toward these goals. Some majors and/or minors may have more stringent guidelines.

**IS A MINOR REQUIRED WITH THIS MAJOR? NO**

**CHECKSHEET TOTAL CREDITS: 137  
TOTAL CREDITS NEEDED TO GRADUATE: 137**

*† Indicates a course taught by a partner college/university.*

*@ Indicates a course with prerequisites. Please review catalog for prerequisites.*