

Engineering (B.S.) – Mechanical Engineering – Study Abroad

2024-2025 Academic Catalog, Bachelor of Science – Engineering, Mechanical Engineering Track, Global Emphasis: Study Abroad

Academic Core for B.S.		48 Hours	Engineering	81 Hours	
CHRISTIAN STUDIES		6	B.S. ENGINEERING MAJOR REQUIRED COURSES 28		
CSBS 1311	Engaging the Old Testament	3	ENGR 2311	Numerical Algorithms	3
CSBS 1312	Engaging the New Testament	3	ENGR 2320	Engineering Mechanics: Statics	3
ENGLISH		9	ENGR 2321	Engineering Mechanics: Dynamics	3
ENGL 1321	Rhetoric & Composition I	3	ENGR 2130	Electric Circuits Laboratory	1
ENGL 1322	Rhetoric & Composition II	3	ENGR 2330	Electrical Circuit Theory	3
ENGL	Literature	3	ENGR 2345	Engineering Thermodynamics	3
<i>A grade of a "C" or higher is required in ENGL 1321 and ENGL 1322.</i>			ENGR 3360	Engineering Design: Engineering for Humanity	3
EXERCISE & SPORT SCIENCE – SELECT TWO DIFFERENT COURSES		2	ENGR 4370	Computer Science & Engineering Ethics Seminar	3
EXAC	Activity Course	1	ENGR 4380	Capstone Design I	3
EXAC	Activity Course	1	ENGR 4381	Capstone Design II	3
FINE ARTS – SELECT ONE		3	MECHANICAL ENGINEERING TRACK 20		
ARTS 1350	Art Appreciation	3	ENGR 3130	Electronics Laboratory	1
COMM 2335	Film Appreciation	3	ENGR 3315	Mechanical Design	3
FINA 2330	Exploring the Fine Arts	3	ENGR 3320	Mechanics of Materials	3
MUSI 1340	Music Appreciation	3	ENGR 3346	Advanced Thermodynamics	3
THEA 2350	Theatre Appreciation	3	ENGR 4150	Fluid Mechanics Laboratory	1
WORLD CULTURES – SELECT ONE		3	ENGR 4340	Principles of Heat Transfer	3
ARTS 2354	World Art	3	ENGR 4350	Fluid Mechanics	3
EXSS 2353	Lifespan Nutrition	3	ENGR 3381	Introduction to Material Science	3
GLBL 2310	Cultural Immersion	3	ENGINEERING UPPER-LEVEL ELECTIVES – SELECT TWO 6		
HIST 1311	History of World Civilizations to 1500	3	CISC 3321	Object Oriented Development	3
HIST 1312	History of World Civilizations since 1500	3	ENGR 3365	Introduction to Optics	3
HUMA 2355	Foundations of the Humanities	3	ENGR 4310	Vibrations	3
MUSI 2358	World Music	3	ENGR 4320	System Dynamics and Control	3
PHIL 2315	Introduction to Philosophy	3	ENGR 4325	Radio Frequency Circuit	3
LAB SCIENCE		8	ENGR 4335	Introduction to Aerospace Engineering	3
PHYS 2421	Physics and Calculus I	4	ENGR 4365	Mechatronics	3
PHYS 2422	Physics and Calculus II	4	ENGR 4391	Special Topics	3
PUBLIC SPEAKING		3	REQUIRED SUPPORT COURSES 27		
COMM 1320	Public Speaking	3	CISC 2330	Introduction to Object-Oriented Programming	3
MATHEMATICS		4	ENGR 1310	Introduction to Engineering	3
MATH 1430	Calculus I	4	ENGR 1320	Introduction to Engineering Fundamentals	3
SOCIAL SCIENCE – SELECT ONE		3	ENGR 2010	AutoCAD Proficiency	0
BECO 2310	Principles of Economics	3	ENGR 4090	Practical Experience	0
PSYC 1301	General Psychology	3	MATH 2320	Linear Algebra	3
PSYC 2399	Child and Adolescent Development	3	MATH 2430	Calculus II	4
SOCI 1311	Introduction to Sociology	3	MATH 3325	Ordinary Differential Equations	3
SOCW 2311	Introduction to Social Work	3	MATH 3430	Calculus III	4
US HISTORY OR US GOVERNMENT – SELECT ONE		3	CHEM 1410	General Chemistry I	4
HIST 2311	American History to 1877	3	Total Hours		
HIST 2312	American History since 1877	3	Academic Core for B.S.	45	
POLS 2305	United States Government	3	Global Emphasis – Study Abroad	3	
POLS 2306	Texas State and Local Government	3	B.S. Engineering Major Required Courses	28	
RESEARCH METHODS OR INTERNSHIP		0	Mechanical Engineering Track	20	
ENGR 4090		0	Engineering Upper Level Electives	6	
FRESHMAN SEMINAR		1	Required Support Courses	27	
UMHB 1101	Freshman Seminar	1	Total hours required for graduation	129	
GLOBAL EMPHASIS – STUDY ABROAD		3	Additional Graduation Requirements		
	Study Abroad	3	Minimum Upper Level hours	36	
CHAPEL – 1 to 4 credits			Minimum hours taken at UMHB	30	
UMHB 1002	Chapel		Minimum Upper Level hours taken at UMHB	24	
Fine Arts Experience – 2 to 8 credits			Minimum cumulative GPA	2.0	
UMHB 1005	Fine Arts Experience				