Critical Technological Studies (B.S.) – Engineering Track

2026-2027 Academic Catalog, Bachelor of Science – Critical Technological Studies, Engineering Track & Applied Associate of Science

Academic UMHB Core 41 Hours

CHRISTIAN STUDIES		6
CSBS 1311	Engaging the Old Testament	3
CSBS 1312	Engaging the New Testament	3

ENGLISH		9
ENGL 1321	Rhetoric & Composition I	3
ENGL 1322	Rhetoric & Composition II	3
ENGL	Literature	3

A grade of a "C" or higher is required in ENGL 1321 and ENGL 1322.

EXERCISE & SPORT SCIENCE – SELECT TWO DIFFERENT COURSES		2
EXAC	Activity Course	1
EXAC	Activity Course	1

FINE ARTS – SELECT ONE		3
ARTS 1310	Drawing I	3
ARTS 1320	Design	3
ARTS 1350	Art Appreciation	3
ARTS 2360	Ceramics I	3
COMM 2335	Film Appreciation	3
FINA 2330	Exploring the Fine Arts	3
MUSI 1340	Music Appreciation	3
THEA 2350	Theatre Appreciation	3
3 Hrs. of the following: MUEN 1193, 3193, 1194 and/or 3194		3

WORLD CULTURES – SELECT ONE		3
ARTS 2354	World Art	3
EXSS 2353	Lifespan Nutrition	3
GLBL 2310	Cultural Immersion	3
HIST 1311	History of World Civilizations to 1500	3
HIST 1312	History of World Civilizations since 1500	3
HIST 2350	An Intro to the Politics and Culture of Ancient G&R	3
HUMA 2355	Foundations of the Humanities	3
MUSI 2358	World Music	3
PHIL 2315	Introduction to Philosophy	3

LAB SCIENCE		4
	Laboratory Science Courses	4

PUBLIC SPEAKING		3
COMM 1320	Public Speaking	3

MATHEMATICS		4
MATH 1430	Calculus I	4

SOCIAL SCIENCE – SELECT ONE		3
BECO 2311	Principles of Macroeconomics	3
EDUC 2399	Child and Adolescent Development	3
PSYC 1301	General Psychology	3
SOCI 1311	Introduction to Sociology	3
SOCW 2311	Introduction to Social Work	3

US HISTORY OR US GOVERNMENT – SELECT ONE		3
HIST 2311	American History to 1877	3
HIST 2312	American History since 1877	3
POLS 2305	United States Government	3
POLS 2306	Texas State and Local Government	3

FIRST YEAR SEMINAR		1
UMHB 1101	First Year Seminar	1

CHAPEL – 1 to 4 credits		
UMHB 1002	Chapel	

Fine Arts Experience – 2 to 8 credits		
UMHB 1005	Fine Arts Experience	

Science Foundation 4 Hours

LAB SCIENCE		4
	Laboratory Science Courses	4

RESEARCH METHODS OR INTERNSHIP		0
ENGR 4081	Research in Critical Technological Studies	0

ASSOCIATE FOUNDATION

** Complete a minimum of 60 semester credit hours, including the Academic UMHB Core and Science Foundation, as directed by your Baccalaureate degree.*

Critical Technological Studies 42 Hours

B.S. ENGINEERING TRACK REQUIRED COURSES		21
CISC 2330	Introduction to Object-Oriented Programming	3
CISC 3322	Web Development	3
ENGR 1310	Introduction to Engineering	3
ENGR 1320	Introduction to Engineering Fundamentals	3
ENGR 2320	Statics	3
ENGR 2345	Thermodynamics	3
ENGR 3360	Engineering for Humanity	3

REQUIRED HUMANITIES COURSES		12
COMM 2360	Introduction to Media Writing	3
ENGL 33XX	Literature	3
HUMA 2355	Foundations of the Humanities	3
WRIT 3344	Scientific and Technical Writing	3

ORAL COMMUNICATION – SELECT ONE		3
COMM 3310	Persuasion	3
COMM 3325	Advanced Public Speaking	3

ADVANCED WRITING SKILLS – SELECT ONE		3
WRIT 3342	Advanced Grammar	3
WRIT 3343	Advanced Composition	3

PRACTICAL MEDIA SKILLS – SELECT ONE		3
COMM 3330	Photojournalism	3
COMM 3368	Broadcasting	3

Electives 33 Hours

UPPER LEVEL ELECTIVES	18
You need 18 additional hours to reach your minimum 36 UL required hrs.	

ELECTIVES	15
You need 15 additional hours to reach your minimum 120 required hrs.	

Total Hours

Academic UMHB Core	41
Science Foundation	4
B.S. Critical Technological Studies Required Courses	42
Upper Level Electives	18
Electives	15
Total hours required for graduation	**120**

Additional Graduation Requirements

Minimum Upper Level hours	36
Minimum hours taken at UMHB	30
Minimum Upper Level hours taken at UMHB	24
Minimum cumulative GPA	2.0

Critical Technological Studies (B.S.) – Engineering Track

2026-2027 Academic Catalog, Bachelor of Science – Critical Technological Studies – Engineering – DEGREE SEQUENCE

FRESHMAN FALL		15 Hours
ENGR 1310	Introduction to Engineering	3
ENGL 1321	Rhetoric & Composition I*	3
	Lab Science (PHYS 2421 recommended)	4
MATH 1430	Calculus I	4
UMHB 1101	First Year Seminar	1
UMHB 1002	Chapel	0
UMHB 1005	Fine Arts Experience	0

FRESHMAN SPRING		15 Hours
ENGR 1320	Intro to Engineering Fundamentals	3
ENGL 1322	Rhetoric & Composition II*	3
	Lab Science (PHYS 2422 recommended)	4
	Elective (MATH 2430 recommended)	4
EXAC	Activity Course	1
UMHB 1002	Chapel	0
UMHB 1005	Fine Arts Experience	0

SOPHOMORE FALL		15 Hours
ENGR 2320	Engineering Mechanics: Statics	3
ENGL	Literature*	3
COMM 1320	Public Speaking**	3
CSBS 1311	Engaging the Old Testament	3
	US History or US Government	3
UMHB 1002	Chapel	0
UMHB 1005	Fine Arts Experience	0

SOPHOMORE SPRING		15 Hours
CISC 2330	Introduction to Object-Oriented Programming	3
ENGR 2345	Engineering Thermodynamics	3
	Fine Arts	3
	Social Science	3
CSBS 1312	Engaging the New Testament	3
UMHB 1002	Chapel	0
UMHB 1005	Fine Arts Experience	0

JUNIOR FALL		15 Hours
CISC 3322	Web Development	3
HUMA 2355	Foundations of the Humanities	3
COMM 2360	Introduction to Media Writing	3
	World Cultures	3
	Minor/Elective***	3
UMHB 1005	Fine Arts Experience	0

JUNIOR SPRING		15 Hours
ENGL 33XX	Literature	3
ENGR 3360	Engineering for Humanity	3
	WRIT 3342 OR WRIT 3343	3
WRIT 3344	Scientific and Technical Writing	3
	Minor/Elective***	3
UMHB 1005	Fine Arts Experience	0

SENIOR FALL		16 Hours
	COMM 3310 or 3325	3
EXAC	Activity Course	1
	Minor/Electives (Upper-Level)***	12
UMHB 1005	Fine Arts Experience	0
ENGR 4081	Research in Critical Technological Studies	0

SENIOR SPRING		14 Hours
	COMM 3330 or COMM 3368	3
ENGR 4081	Research in Critical Technological Studies	0
	Minor/Electives (Upper-Level)***	6
	Electives†	5
UMHB 1005	Fine Arts Experience	0

Total Credit Hours: 120

* Prerequisites for upper-level ENGL and WRIT courses.

** Prerequisite for upper-level COMM courses.

*** If no minor declared, fulfill with electives

† If possible, Majors are strongly recommended taking WRIT 4292.

A major in Critical Technological Studies consists of 42 semester hours.
Students must maintain a GPA of 2.0 or better for courses in the major