Bachelor of Science in

METALLURGICAL MATERIALS & BIOMEDICAL ENGINEERING

MAJOR MAP | 2019-2020

UTEP EDGE

	YOUR CLASS SCHEDULE	ACADEMIC ADVISING	ENRICHING EXPERIENCES	LIFELONG SUCCESS
FRESHMAN	• Register to take classes in this order: UNIV 1301, Foundations of Engineering; MATH 1411; CHEM; then Mettalurgical Materials and Biomedical Engineering (MME) and core curriculum courses. • Take COMM 1302.	• Meet your PREE Advisor and attend the Intro Compliance session during orientation. • Declare your Metallurgical Materials and Biomedical Engineering major once you register for MATH 1411 (Calculus I) or higher.	• Explore student organizations at Gold Rush. • Experience a new culture with a student exchange program. • Network with peers and organize a study group at the The Foundry. • Cultivate leadership and teamwork skills at TCM Day.	• Discover ACES tutoring resources. • Explore career opportunities at the Career Expo and the Engineering & Science Expo.
SOPHOMORE	• Take MECH 2311, Mechanics of Materials; and CE 2326, Economics for Engineers and Scientists. • Examine the critical path flow chart.	• Meet with your PREE Advisor before registration. • Discuss your degree plan with your PREE Advisor. • Ask about the Rising Junior Exam and the Masters of Science in Biomedical Engineering.	• Join American Foundry Society. • Explore professional engagement opportunities with SWE and MAES/SHPE. • Discover community involvement opportunities in your field with the Center for Civic Engagement. • Strive for high grades to be eligible for induction into Alpha Sigma Mu, the MME Honor Society.	• Visit the Career Center Satellite to develop a resume and investigate employment opportunities. • Cultivate healthy lifestyle habits by visiting the Student Recreation Center.
JUNIOR	• Focus on your upper division Metallurgical Materials and Biomedical Engineering (MME) classes. • Examine the critical path flow chart.	• Meet with your Metallurgical Materials and Biomedical Engineering (MME) advisor before registration. • Discuss your degree plan with your advisor. • Ask about internship opportunities and about preparing for the Fundamentals of Engineering Exam (FE).	• Explore unique faculty-led travel opportunities with Engineering Global Programs. • Participate in a technical competition such as Steel Bridge, Concrete Canoe, or Mini Baja. • Cultivate global awareness at events sponsored by the Office of International Programs.	• Ask a Peer Career Advisor about internship opportunities. • Revisit the Career Expo and the Engineering & Science Expo. • Explore graduate programs in Engineering.
SENIOR	• Take MME 4419, MME Design and Practice. • Complete your major requirements and any remaining electives.	• Meet with your Metallurgical Materials and Biomedical Engineering (MME) advisor before registration. • Review your graduation audit with the Graduation Coordinator.	• Cultivate a leadership role with your student organization. • Expand your community engagement efforts by joining the Ninjaneer Service Learning Program. • Explore research opportunities with COURI.	• Take the Fundamentals of Engineering (FE) Exam. • Visit the Career Center Satellite for mock interviews and resume review. • Apply for graduate school or explore career opportunities.

UPDATED 06/29/18

EDGE ADVANTAGES:

- Leadership
- Problem-solving
- Communication
- Entrepreneurship
- Social Responsibility
- Confidence
- Global Awareness
- Teamwork
- Critical Thinking

CAREER POSSIBILITIES:

- Aerospace product and parts manufacturing
- Engineering services
- Primary metals manufacturing
- Computer and electronic product manufacturing
- Research and development

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MAJOR MAP CHECKLIST | 2019-2020

Last Name _____ First Name _____ M.I. _____ Expires: 08/01/2024

UTEP ID _____

NOTE: Overall GPA ≥ 2.0 AND In-Major GPA ≥ 2.0 REQUIRED for graduation

A Core Curriculum (44 SCH) (minimum of "C" grade required)		Semester Completed	Final Grade	SCH	Sub #
1 Communication (6 credit hours required)					
RWS 1301*	Rhetoric and Composition I				
RWS 1302*	Rhetoric and Composition II				
2 Mathematics (4)					
MATH 1411*	Calculus I				
3 Life and Physical Sciences (7)					
CHEM 1305*+1105*	General Chemistry				
CHEM 1306*	General Chemistry				
4 Language, Philosophy, and Culture (3) Select and circle one:					
ENGL 2311*, 2312*, 2313*, 2314*, 2318*, FREN 2322*, HIST 2301*, 2302*, PHIL 1301*, 2306*, RS 1301*, SPAN 2340*,WS 2300*, 2350*					
5 Creative Arts (3) Select and circle one:					
ART 1300*, ARTH 1305*, 1306*, DANC 1304*, FILM 1390*, MUSL 1321*, 1324*, 1327*, THEA 1313*					
6 American History (6)					
HIST 1301*	History of the U.S. to 1865				
HIST 1302*	History of the U.S. since 1865				
7 Government/Political Science (6) -- all 6 SCH must be completed at the same institution					
POLS 2310*	Introduction to Politics				
POLS 2311*	American Govt. & Politics				
8 Social and Behavioral Sciences (3)					
CE 2326*	Econ. For Engrs & Scientists				
9 Component Area Option (6)					
UNIV 1301*	Foundations of Engineering				
COMM 1302*	Business/Prof. Communications				

B Foundational Math & Science (17 SCH)		Semester Completed	Final Grade	SCH	Sub #
MATH 1312*	Calculus II				
MATH 2313*	Calculus III				
MATH 2326*	Differential Equations				
PHYS 2420*	Introductory Mechanics				
PHYS 2421*	Fields and Waves				

C Major: Required Lower Division Courses (19 SCH)		Semester Completed	Final Grade	SCH	Sub #
MME 1205*	Graphic and Design Fundamentals				
MECH 2342*	Electro Mechanical Systems				
MME 1301*	Introduction to MME Design				
MME 1101*	Introduction to MME Design Lab				
MME 2303*	Introduction to Materials Science and Engineering				
MME 2305*	Material and Energy Balance				
MME 2434*	Mechanics of Materials				

D Major: Required Upper Division Courses (45 SCH)		Semester Completed	Final Grade	SCH	Sub #
MME 3306*	Rate Processes in Materials System				
MME 3308*	Applied Chemical Thermodynamics				
MME 3309*	Introduction to Electronic Materials Science				
MME 3312*	Biomaterials				
MME 3406*	Nanofunctional Physical Metallurgy				
MME 3407*	Mechanical Behavior of Materials				
MME 4195*	Senior Professional Orientation				
MME 4303*	Metals Processing				
MME 4309*	Corrosion				
MME 4316*	Failure Analysis				
MME 4322*	Nanomaterials and Nanostructures				
MME 4404*	Materials Processing				
MME 4413*	Structural Characterization				
MME 4419*	MME Design and Practice				

E Technical Elective (3 SCH) Select and circle one:	Semester Completed	Final Grade	SCH	Sub #
MME 3314*, 3321*,4330*				

NOTES:

* -- C or better required

** -- official substitution form available at http://engineering.utep.edu/plaza/AcademicForms/index.html

BSMME Total Hours 128

SUBSTITUTIONS**				
Sub #	Course on degree plan to substitute	Institution where course was taken	Name of Course as it appears on UTEP Transcript	Course as it appears on UTEP Transcript
1				
2				
3				
4				

APPROVALS:

ADVISOR _____ DATE _____

CHAIR _____ DATE _____

Rev. 06-26-2017