# Bachelor of Science – Metallurgical and Materials Engineering

## Degree Plan (checklist)

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

### Core Curriculum (44 SCH)

- 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*  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*, 2315*, 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)
  - Select and circle one:
    - 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)
  - Select and circle one:
    - UNIV 1301*  Foundations of Engineering
    - COMM 1302*  Business/Prof. Communications

### Foundational Math & Science (17 SCH)

- MATH 1312*  Calculus II
- MATH 2313*  Calculus III
- MATH 2326*  Differential Equations
- PHYS 2420*  Introductory Mechanics
- PHYS 2421*  Fields and Waves

### Major: Required Lower Division Courses (19 SCH)

- 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

### Major: Required Upper Division Courses (45 SCH)

- 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

### Technical Elective (3 SCH)

- Select and circle one:
  - MME 3314*, 3321*, 4330*

### NOTES:

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

### Substitutions**

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### APPROVALS:

- ADVISOR  
- DATE  
- CHAIR  
- DATE  

**BSMME Total Hours** 128