Bachelor of Science in Engineering Innovation and Leadership (Mechanical Engineering Concentration)

Required Semester Credit Hours (SCH): 125

The flowchart below may not reflect all student schedules; courses can be shifted to different semesters where applicable.

Many core curriculum courses are also offered in the summer (Su). Students are encouraged to register early and check Goldmine for course availability.

Refer to the University Catalog for all degree requirements at catalog.utep.edu.

F/Sp/Su indicates the semesters Fall/Spring/Summer.

See University Catalog

C or better required.

** SCH Not counted in total degree required semester credit hours.

DEGREE PREREQUISITES

- Mathematics/Science: (3-5 SCH) (F/Sp/Su)
  - MATH 1310 Trigonometry
  - MATH 1508 Precalculus

- Core Curriculum:
  - MATH 2400 Calculus I
  - MATH 2401 Calculus II
  - MATH 3324 Linear Algebra

DEGREE REQUIREMENTS

- Foundational Engineering Leadership Major:
  - Foundation: (3 SCH) (F/Sp/Su)
    - MATH 1310 Trigonometry
    - MATH 1508 Precalculus
    - PHYS 2410 Introductory Mechanics
    - PHYS 2421 Introductory Electromagnet
    - CHEM 1305 General Chemistry
  - Core: (15 SCH) (F/Sp/Su)
    - EL 1301 Introduction to Engineering Innovation and Leadership
    - MATH 2313 Calculus III
    - MATH 3326 Differential Equations
    - PHIL 2306 Ethics
  - Emphasis: (3 SCH) (F/Sp/Su)
    - MECH 3310 Fluid Mechanics
    - MECH 3311 Heat Transfer
    - MECH 3312 Thermodynamics
    - MECH 3314 Fluid Mechanics
  - Elective
    - CS 1320 Computer Programming for Scientists
    - MATH 1411 Calculus II
    - MATH 1412 Calculus III
    - MATH 2312 Calculus II
    - MATH 2313 Calculus III
    - MATH 3324 Linear Algebra

- General Education:
  - History: (15 SCH) (F/Sp/Su)
    - HIST 1301 History of U.S. to 1865
    - HIST 1302 History of U.S. since 1865
    - POLS 2310 Introduction to Politics
  - Social Science: (4 SCH) (F/Sp/Su)
    - RWS 1301 Rhetoric and Comp. 1
    - CE 2326 Econ for Engrs. & Scientists
    - PHIL 2306 Ethics
  - Creative Arts: (3 SCH) (F/Sp/Su)
    - EL 2303 Engineering Computations
  - Elective: (3 SCH) (F/Sp/Su)
    - EL 3303 Professional Practice I
    - EL 3304 Professional Practice II
  - Emphasis: (3 SCH) (F/Sp/Su)
    - MECH 3310 Fluid Mechanics
    - MECH 3311 Heat Transfer
    - MECH 3312 Thermodynamics

Sample Degree Plan 2021-2022

DRAFT PENDING DEPARTMENTAL APPROVAL