### Bachelor of Science — Engineering Leadership

#### Degree Plan (checklist)

**Catalog:** 2018-2019

**Expires:** 08/01/2025

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

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**Core Curriculum (45 SCH)**

- **Communication (6 credit hours required)**
  - RWS 1301*
  - RWS 1302*

- **Mathematics (4)**
  - MATH 1411*

- **Life and Physical Sciences (8)**
  - PHYS 2420*

- **Language, Philosophy, and Culture (3)**
  - PHIL 2306*

- **Creative Arts (3)**
  - Select and circle one:
    - ART 1300*, ARTH 1305*, 1306*, DANC 1304*, FILM 1390*, MUSL 1321*, 1324*, 1327*, THEA 1313*

- **American History (6)**
  - HIST 1301*
  - HIST 1302*

- **Government/Political Science (6)** — all 6 SCH must be completed at the same institution
  - POLS 2310*

- **Social and Behavioral Sciences (3)**
  - CE 2326*

- **Component Area Option (6)**
  - UNIV 1301*
  - COMM 1302*

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**Foundational Math & Science (12 SCH)**

- **Calculus I**
  - MATH 1312*

- **Calculus II**
  - MATH 2313*

- **Differential Equations**
  - MATH 2326*

- **General Chemistry**
  - CHEM 1305*

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**Major: Required Lower Division Courses (24 SCH)**

- **Fundamentals of Eng. Leadership and Graphics**
  - EL 1405*

- **Intro to Eng. Design & Leadership**
  - EL 1302*

- **Modeling and Simulation**
  - MLW 2301*

- **Intro to Materials Sci & Engineering**
  - MME 2303

- **Mechanics of Materials**
  - MME 2434

- **Dynamics**
  - CE 2338

- **Electro Mechanical Systems**
  - CE 2377

- **Intro to Thermal Fluid Science**
  - MECH 2311

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**Major: Required Upper Division Courses (20 SCH)**

- **Professional Practice I**
  - EL 3003

- **Professional Practice II**
  - EL 3005

- **Engineering Measurements**
  - EL 3302*

- **Engineering Entrepreneurship: Products to People**
  - EL 3304*

- **Engineering Design: People to Products**
  - EL 3331*

- **Eng. Probability & Statistics Models**
  - EL 3373*

- **Capstone Design I: Definition & Exploration**
  - EL 4395*

- **Capstone Design II: Development & Evaluation**
  - EL 4396*

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**Major: Concentration Courses (12 SCH)**

See advisor for list of concentrations & approved courses within concentration.

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**Foundational Math & Science Elective (9 SCH)**

See advisor for approved courses.

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**Upper Division Math/Science Elective (3 SCH)**

See advisor for approved courses.

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**Substitutions**

- **Course on degree plan to substitute**
  - MATH 1312*
  - MATH 2313*
  - MATH 2326*
  - CHEM 1305*

- **Institution where course was taken**
  - UTEP

- **Name of Course as it appears on UTEP Transcript**
  - Calculus II

- **Course as it appears on UTEP Transcript**
  - Calculus III

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**Upper Division Engineering Technical Elective (9 SCH)**

See advisor for approved courses.

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**Upper Division Math/Science Elective (3 SCH)**

See advisor for approved courses.

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**BSEL Total Hours**

125

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**Approvals:**

- **Advisor**
  - Date

- **Chair**
  - Date

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**Rev. 03-21-2018**