## Major Map 2018-2019

### Bachelor of Science in Electrical Engineering

#### Your Class Schedule

- **Freshman**
  - Register to take classes in this order: UNIV 1301, Foundations of Engineering; MATH 1411; PHYS 2420; then Electrical Engineering and core curriculum courses.
  - Take EE 2369, Digital Systems Design I; CE 2326, Economics for Engineers and Scientists; and PHYS 2421, if not already completed.
  - Examine the critical path flow chart.

- **Sophomore**
  - Take upper division Electrical Engineering classes.
  - Examine the critical path flow chart.

- **Junior**
  - Take EE 4220 (Senior Project Lab I) in the Fall.
  - Take EE 4230 (Senior Project Lab II) in the Spring.
  - Complete your major requirements and any remaining electives.

- **Senior**
  - Meet with your Electrical Engineering advisor before registration.
  - Review your graduation audit with the Graduation Coordinator.

#### Academic Advising

- Meet with your PREE Advisor before registration.
- Meet with your Electrical Engineering advisor before registration.
- Meet with your PREE Advisor and attend the Intro Compliance session during orientation.
- Declare your Electrical Engineering major once you register for MATH 1411 (Calculus I) or higher.

#### Enriching Experiences

- Explore student organizations at Gold Rush.
- Join The Institute of Electrical and Electronics Engineers.
- Explore unique faculty-led travel opportunities with Engineering Global Programs.
- Explore research opportunities with COURI.
- Discover ACES tutoring resources.
- Take the Fundamentals of Engineering (FE) Exam.

#### Lifelong Success

- Aims at career opportunities at the Career Expo and the Engineering & Science Expo.
- Examine the critical path flow chart.
- Meet your PREE Advisor and attend the Intro Compliance session during orientation.
- Meet your Electrical Engineering advisor before registration.
- Discuss your degree plan with your advisor.

#### EDGE Advantages:

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

#### Career Possibilities:

- Engineering services
- Electric power generation, transmission, and distribution
- Semiconductor and electronic component manufacturing
- Navigational, measuring, electromedical, and control instruments manufacturing
- Research and development

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**Updated 06/29/2018**
### Bachelor of Science in Electrical Engineering

**MAJOR MAP CHECKLIST | 2018-2019**

**COLLEGE OF ENGINEERING | ENGINEERING BUILDING | 915-747-6444 | ENGINEER@UTEP.EDU**

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

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### A. Core Curriculum (45 SCH)

- **Communication (6 credit hours required):**
  - RWS 1301*: Rhetoric and Composition I
  - RWS 1302*: Rhetoric and Composition II

- **Mathematics (4):**
  - MATH 1411*: Calculus I

- **Life and Physical Sciences (8):**
  - PHYS 2420*: Introductory Mechanics
  - PHYS 2421*: Fields and Waves

- **Language, Philosophy, and Culture (3):**
  - Select and circle one

  - ENGL 2311*, 2312*, 2313*, 2314*, 2316*, FREN 2322*, HIST 2301*, 2302*, PHIL 1301*, 2306*, RS 1301*, SPAN 2340*, WS 2300*, 2350*

- **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*: History of the U.S. to 1865
  - HIST 1302*: History of the U.S. since 1865

- **Government/Political Science (6) – all 6 SCH must be completed at the same institution:**
  - POLS 2310* Introduction to Politics
  - POLS 2311* American Govt. & Politics

- **Social and Behavioral Sciences (3):**
  - CE 2326* Econ. For Engrs & Scientists

- **Component Area Option (6):**
  - UNIV 1301 Fundamentals of Engineering

### B. Foundational Math & Science (15 SCH)

- **Calculus II:**
  - MATH 1312*

- **Calculus III:**
  - MATH 2313*

- **Differential Equations:**
  - MATH 2326*

- **Matrix Algebra:**
  - MATH 3323*

- **Chemistry:**
  - CHEM 1305*, BIOL 1305*, or MATH 2300*

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### C. Major: Required Lower Division Courses (21 SCH)

- **Lab for EE 1305:** EE 1105*
- **Intro to EE:** EE 1305*
- **Lab for EE 2351:** EE 2151*
- **Lab for EE 2369:** EE 2169*
- **Electric Circuits I:** EE 2350*
- **Electric Circuits II:** EE 2351*
- **Cont. Time Signals & Systems:** EE 2353*
- **Digital Systems Design I:** EE 2369*
- **Software Design I:** EE 2372*

### D. Major: Required Upper Division Courses (32 SCH)

- **Lab for EE 3338:** EE 3138*
- **Lab for EE 3376:** EE 3176*
- **Junior Professional Orientation:** EE 3195*
- **Electromagnetic Field Theory:** EE 3211*
- **Applied Quantum Mechanics for EEs:** EE 3225*
- **Electronic Devices:** EE 3329*
- **Electronics I:** EE 3338*
- **Electronics II:** EE 3340*
- **Discrete Time Signals & Sys.:** EE 3353*
- **Microprocessor Systems I:** EE 3376*
- **Probabilistic Methods-Engr/Sci:** EE 3384
- **Senior-level Lab:** EE 41_
- **Senior Project Lab I:** EE 4200*
- **Senior Project Lab II:** EE 4230

### E. Major: Concentration Courses (12 SCH)

- **Senior-level Lab:** see advisor for list of concentrations & approved courses within concentration.

### F. Technical Elective (3 SCH)

- **see advisor for approved courses**

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**BSEE Total Hours 128**

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### SUBSTITUTIONS**

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

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**APPROVALS:**

- ADVISOR
- DATE
- CHAIR
- DATE

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Rev. 06-26-2017