# Bachelor of Science – Electrical and Computer Engineering

## Degree Plan (checklist)

### Catalog: 2012-13

Expires: 08/01/2019

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>M.I.</th>
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</table>

### UTEP ID

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

### A. Core Curriculum (45 SCH)

(minimum of "C" grade required)

<table>
<thead>
<tr>
<th>Semester</th>
<th>Final Grade</th>
<th>Sub</th>
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</table>

### 1 Communication (9 credit hours required)

- ENGL 1311*: Expos. English Composition
- ENGL 1312*: Research & Critical Writing

### 2 Mathematics (3)

- MATH 1411*: Calculus I

### 3 Natural Science (6)

- PHYS 2420*: Introductory Mechanics
- PHYS 2421*: Fields and Waves

### 4 Humanities (3)

Circle one:

- ENGL 2311*, 2312*, 2313*, 2314*, 2316*, HIST 2301*, 2302*, PHIL 1301*, 1306*

### 5 Visual and Performing Arts (3)

Circle one:

- ART 1300*, ARTH 1305*, 1306*, DANC 1304*, MUSL 1321*, 1324*, 1327*, THEA 1313*, FILM 1390*

### 6 U.S. History (6)

- HIST 1301*: History of the U.S. to 1865
- HIST 1302*: History of the U.S. since 1865

### 7 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 Institutionally Designated Option (3)

Circle one:

- UNIV 1301* or UNIV 2350*

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

<table>
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<th>Semester</th>
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### 1 Calculus II

- MATH 1312*

### 2 Calculus III

- MATH 2313*

### 3 Differential Equations

- MATH 2326*

### 4 Matrix Algebra

- MATH 3323*

### 5 General Chemistry

- CHEM 1305*

### SUBSTITUTIONS**

<table>
<thead>
<tr>
<th>Sub #</th>
<th>Course on degree plan to substitute</th>
<th>Institution where course was taken</th>
<th>Course as it appears on UTEP Transcript</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1305</td>
<td>Other university</td>
<td>ENGR 13TR</td>
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<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3</td>
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### C. Major: Required Lower Division Courses (21 SCH)

<table>
<thead>
<tr>
<th>Semester</th>
<th>Final Grade</th>
<th>Sub</th>
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</table>

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

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

<table>
<thead>
<tr>
<th>Semester</th>
<th>Final Grade</th>
<th>Sub</th>
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</thead>
</table>

### 1 EE 3138*: Lab for EE 3338
- EE 3176*: Lab for EE 3376
- EE 3195*: Junior Professional Orientation
- EE 3321*: Electromagnetic Field Theory
- EE 3325*: Applied Quantum Mechanics for EEs
- EE 3329*: Electronic Devices
- EE 3338*: Electronics I
- EE 3340*: Electronics II
- EE 3353*: Discrete Time Signals & Sys.
- EE 3376*: Microprocessor Systems I
- EE 3384*: Probabilistic Methods-Engr/Sci
- EE 41*: Senior-Level Lab
- EE 4220*: Senior Project Lab I
- EE 4230*: Senior Project Lab II

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

<table>
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<tr>
<th>Semester</th>
<th>Final Grade</th>
<th>Sub</th>
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</table>

### see advisor for approved courses

### E. Technical Elective (3 SCH)

<table>
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<tr>
<th>Semester</th>
<th>Final Grade</th>
<th>Sub</th>
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</table>

### see advisor for approved courses

### BSEE Total Hours 128

### APPROVALS:

<table>
<thead>
<tr>
<th>ADVISOR</th>
<th>DATE</th>
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<table>
<thead>
<tr>
<th>CHAIR</th>
<th>DATE</th>
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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)

Rev 2/27/2013
### LOWER DIVISION

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>MATH 1411</td>
<td>CALC I</td>
</tr>
<tr>
<td>MATH 1312</td>
<td>CALC II</td>
</tr>
<tr>
<td>MATH 2326</td>
<td>DIFF EQ</td>
</tr>
<tr>
<td>MATH 2313</td>
<td>CALC III</td>
</tr>
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</table>

**Credits:** 17

### UPPER DIVISION

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>MATH 3323</td>
<td>MAT ALG</td>
</tr>
<tr>
<td>MATH 3338</td>
<td>ELECTRONICS I</td>
</tr>
<tr>
<td>MATH 3340</td>
<td>ELECTRONICS II</td>
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<tr>
<td>EE 3353</td>
<td>EE 3355</td>
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<tr>
<td>EE 3375</td>
<td>EE 3176</td>
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<tr>
<td>EE 3195</td>
<td>EE 3329</td>
</tr>
<tr>
<td>EE 4230</td>
<td>TECHNICAL</td>
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<tr>
<td>EE 4239</td>
<td>SR PROJ II</td>
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</tbody>
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**Credits:** 16

### UNIVERSITY CORE CURRICULUM

- "C" OR BETTER REQUIRED
- "C" OR BETTER REQUIRED IF USED AS PREREQUISITE FOR ANOTHER COURSE

### ELECTRICAL AND COMPUTER ENGINEERING OPTIONS

#### GENERAL

- SELECT 4,
- ONE FROM EFD
- ONE FROM COMP
- 4TH FROM ANY EE ELECTIVE

#### COMPUTER (COMP)

- TAKE EE 3372
- AND SELECT 3

#### HUMANITIES (3 HRS.)

- ENGL 2311 or 2312
- ENGL 2313 or 2314
- ENGL 2318

#### SYSTEMS & COMMUNICATION (S&C)

- SELECT TWO OF
- THE 4TH FROM ANY EE ELECTIVE

#### VISUAL & PERF. ARTS (3 HRS.)

- ART 1300
- ARTH 1305 or 1306
- DANC 1304
- MUSL 1321 or 1324 or 1327
- THEA 1313
- FILM 1390
- OR ANY APPROVED UNIVERSITY

#### ENGG ENG SCI

- PHIL 1301 or 2306

#### GOV I

- GOV II

#### Elective

- ELECTIVE IN THE HUMANITIES BLOCK

*Six hours of electives must be selected from core curriculum courses. Three of these hours must be in visual and performing arts and three hours must be in humanities. At least 12 hours must be selected from one of the options listed above. Three hours of approved technical electives must be selected from upper level courses in Engineering or the Biological or Physical Sciences.*