### Program of Study: Computer Engineering

#### Major: Electrical and Computer Engineering

**Degree:** Bachelor of Science in Electrical and Computer Engineering (BSECE)

**Hrs:** 128

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**Name:**

**ID:**

**New to OSU:**

**email:** @ osu.edu

**Phone number:**

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#### CORE (84 HRS)

<table>
<thead>
<tr>
<th>Course Description</th>
<th>AU</th>
<th>SP</th>
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</thead>
<tbody>
<tr>
<td>Engr (Fund. Of Engr I)</td>
<td>1181</td>
<td>2</td>
</tr>
<tr>
<td>Math (Engr. Calculus I)</td>
<td>1151</td>
<td>5</td>
</tr>
<tr>
<td>Chemistry for Engineers</td>
<td>1250</td>
<td>4</td>
</tr>
<tr>
<td>Engr (Survey)</td>
<td>1100</td>
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<tr>
<td>Physics (E&amp;M +...)</td>
<td>1251</td>
<td>5</td>
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<tr>
<td>Math (Linear Algebra)</td>
<td>2568</td>
<td>3</td>
</tr>
<tr>
<td>ECE (Intro to ECE I)</td>
<td>2000</td>
<td>4</td>
</tr>
<tr>
<td>CSE (Dev Software I)</td>
<td>2221</td>
<td>4</td>
</tr>
<tr>
<td>Stat (Prob&amp;Stat)</td>
<td>3470</td>
<td>3</td>
</tr>
<tr>
<td>ECE (Electronics)</td>
<td>3020</td>
<td>3</td>
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<tr>
<td>ECE (Adv. Digital Design)</td>
<td>3561</td>
<td>3</td>
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<tr>
<td>Math(DiffEq&amp;CmplxMath)</td>
<td>2415</td>
<td>3</td>
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<tr>
<td>ECE (Microcontrollers Lab)</td>
<td>3567</td>
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<tr>
<td>ISE (Engr. Econ.)</td>
<td>2040</td>
<td>2</td>
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<tr>
<td>ECE (Ethics &amp; Prof.)</td>
<td>3080</td>
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</tr>
<tr>
<td>ECE (Tech. Writing)</td>
<td>3090</td>
<td>1</td>
</tr>
</tbody>
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#### ELECTIVES (20 HRS)

- At least 9 hours of the Technical Electives must be ECE or CSE courses selected from the lists below.
- Must include at least one 5000 level ECE or CSE Technical Elective.
- Up to 11 hours of the Electives may be Directed Electives from the ECE approved list. Directed Electives generally include: courses required for entry into other engineering majors; required and technical elective courses in other engineering majors; pre-med courses, business or entrepreneurship courses; math, statistics, physics and chemistry courses at higher level than required in the ECE core; and other physical science or biological science courses. For physical science or biological science courses a maximum of 7 hours numbered below 2000 may be counted as Directed Electives.

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#### General Education (24 HRS)

- **PRE-ADMISSION CONDITION**
  - One GE must be a US Social Diversity Course.
  - One GE must be an ETHICS course.
  - English & Comm Skills (6 hr)
    - English 1110.xx  3
    - English 1120.xx  3
    - Writing 3
  - Social Sciences (6 hrs)
    - Only one course per Social Science group may count
    - Grp 3
    - Grp 3
  - Literature
    - 3
  - Visual & Performing Arts
    - 3
  - Historical Study
    - 3
  - 2nd Hst. Stdy. or Culture & Ideas
    - 3

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#### CSE DIRECTED ELECTIVES

- Total CSE Directed Elec. ( ___ )

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#### OTHER ECE TECH ELECTIVES

- Total Other ECE TE. ( ___ )
- Total Short List TE. ( ___ )
- Total ECE &CSE Elec. ( ___ )

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#### NON-CSE DIRECTED ELECTIVES

- Total Non-CSE DE ( ___ )

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### Course List

- **VLSI (Very Large Scale Integrated Circuits) & Computer Aided Design**
  - ECE 5020 (3)

- **Microprocessor Based Systems**
  - ECE 5465 (3)

- **Digital Design and Computer Architecture**
  - ECE 5462 (3)
  - ECE 5467 (3)

- **Computer Networks**
  - ECE 5101 (3)
  - CSE 3461 (3)

- **Signals and Systems**
  - ECE 3050 (3)

- **Robotics and Control for Automation**
  - ECE 3551 (3)
  - ECE 5463 (3)
  - ECE 5554 (3)

- **Digital Signal Processing/Image Processing**
  - ECE 5200 (3)
  - ECE 5206 (3)
  - ECE 5460 (3)

- **Numerical Analysis**
  - CSE 5361 (3)

- **Database/Algorithms**
  - CSE 3241 (3)
  - CSE 5242 (3)

- **High Performance Computing**
  - CSE 5441 (3)

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**Revised 9/30/13: gjv**