Bachelor of Science in Computer Engineering

Requirements (132 units)

Total units required for graduation: 187

Students in this degree program do not need to take courses in the General Education categories A4 Critical Thinking and D4 Discipline Perspectives

Requirements for the B.S. in Computer Engineering (Program Code: COEN)

Lower-division requirements (54)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSE 201</td>
<td>Computer Science I</td>
<td>4</td>
</tr>
<tr>
<td>CSE 202</td>
<td>Computer Science II</td>
<td>4</td>
</tr>
<tr>
<td>CSE 208</td>
<td>Introduction to Computer Engineering Design</td>
<td>2</td>
</tr>
<tr>
<td>MATH 211</td>
<td>Basic Concepts of Calculus</td>
<td>4</td>
</tr>
<tr>
<td>MATH 212</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 213</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 251</td>
<td>Multivariable Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 262</td>
<td>Applied Statistics</td>
<td>4</td>
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<tr>
<td>MATH 272</td>
<td>Discrete Mathematics</td>
<td>4</td>
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<tr>
<td>PHYS 150</td>
<td>Introductory Electronics</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 221</td>
<td>General Physics I</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 222</td>
<td>General Physics II</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 223</td>
<td>General Physics III</td>
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Upper-division requirements (66)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CSE 308</td>
<td>Computer Engineering Design</td>
<td>4</td>
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<tr>
<td>CSE 310</td>
<td>Digital Logic</td>
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<tr>
<td>CSE 311</td>
<td>Advanced Digital Design</td>
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<tr>
<td>CSE 313</td>
<td>Machine Organization</td>
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<tr>
<td>CSE 330</td>
<td>Data Structures</td>
<td>4</td>
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<tr>
<td>CSE 335</td>
<td>Signals and Systems</td>
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<tr>
<td>CSE 401</td>
<td>Contemporary Computer Architecture</td>
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<tr>
<td>CSE 403</td>
<td>Circuit Design and Analysis</td>
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<tr>
<td>CSE 408</td>
<td>Sustainable Engineering Design</td>
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<tr>
<td>CSE 456</td>
<td>Embedded Systems</td>
<td>4</td>
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<tr>
<td>CSE 460</td>
<td>Operating Systems</td>
<td>4</td>
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<tr>
<td>CSE 521</td>
<td>Field Programmable Gate Array Design</td>
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<tr>
<td>CSE 535</td>
<td>Numerical Computation</td>
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<tr>
<td>CSE 541</td>
<td>Robotics and Control</td>
<td>4</td>
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<tr>
<td>MATH 331</td>
<td>Linear Algebra</td>
<td>4</td>
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<tr>
<td>PHYS 350</td>
<td>Data Acquisition and Control</td>
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</table>

Electives (12)

Take three courses for a total of twelve units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CSE 431</td>
<td>Algorithm Analysis</td>
</tr>
<tr>
<td>CSE 455</td>
<td>Software Engineering</td>
</tr>
<tr>
<td>CSE 461</td>
<td>Advanced Operating Systems</td>
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</table>

Any CSE course numbered 500 and above