# DUAL MAJOR (CS & CPE)

(Includes Embedded Systems Sequence and new CS Capstone Requirement)

COMBINED Computer Science & Computer Engineering Curriculum

<table>
<thead>
<tr>
<th>Major</th>
<th>Major credits</th>
<th>Total credits</th>
<th>Math Credits</th>
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<tbody>
<tr>
<td>CS 111x Intro Programming</td>
<td>3</td>
<td>18</td>
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<tr>
<td>CS 2110 Software Devlpmnt Meth</td>
<td>3</td>
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<tr>
<td>CS 2102 Discrete Math I</td>
<td>3</td>
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<tr>
<td>ECE 2630 % Intro Circuit Analysis</td>
<td>3</td>
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<tr>
<td>ECE 2660 % Electronics I</td>
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<tr>
<td>CS 2150 Program/Data Rep</td>
<td>3</td>
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<tr>
<td>ECE/CS 2330 Digital Logic Design</td>
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<tr>
<td>ECE 3750 % Signals &amp; Systems I</td>
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<tr>
<td>CS 3240 Advanced SW Devlpmnt</td>
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<tr>
<td>ECE 3430 Intro Embedded Comp Sys</td>
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<tr>
<td>CS/ECE 4457 Computer Networks</td>
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<tr>
<td>CS 4414 Operating Systems</td>
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<tr>
<td>ECE 4435** Comp Arch and Design</td>
<td>4.5</td>
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<tr>
<td>ECE 4440 Embed'd Sys Dsgn (MDE)</td>
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<tr>
<td>Capstone CS 4980 or CS 4971</td>
<td>3</td>
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<tr>
<td>CS 3102 Theory of Computation</td>
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<tr>
<td>CS 4102 Algorithms</td>
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<td>CS CS Elective (3000 or above)</td>
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<tr>
<td>CS CS Elective (3000 or above)</td>
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<tr>
<td>CS CS Elective (4000 or above)</td>
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<td>CS 2190 # CS Seminar</td>
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** SEAS requirements & Electives

<table>
<thead>
<tr>
<th></th>
<th>Credits</th>
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<tbody>
<tr>
<td>STS 1010 Intro Lang, Comm &amp; Tech</td>
<td>3</td>
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<tr>
<td>STS 2-- STS Elective (2000 or above)</td>
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<tr>
<td>STS 4500 STS &amp; Engineering Practice</td>
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<tr>
<td>STS 4600 Engr Ethics &amp; Prof Respsblty</td>
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<tr>
<td>CHEM 1610 Intro Chem. Engineers (&amp; Lab)</td>
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<tr>
<td>ENGR 1620 Introduction to Engineering</td>
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<tr>
<td>SCI Science Elective</td>
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<tr>
<td>PHYS 1425 Physics I &amp; Lab</td>
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<tr>
<td>PHYS 2415 Physics II &amp; Lab</td>
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<tr>
<td>5 HSS # Humanities &amp; Social Sci. Elect.</td>
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<tr>
<td>2 UE Unrestricted Elect. (see notes)</td>
<td>5</td>
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</tbody>
</table>

* ECE 4440 counts as 1 CS elective and an exception must be recorded in SIS

** ECE 4435 counts in lieu of CS 3330 (cannot take both) and must be recorded as an exception in SIS

% ECE 2630, 2660 and 3750 count as 10 credits of Unrestricted Electives for CS

# CS 2190 counts as 1 UE credit for CpE

# 2 of the 5 HSS electives required for CS count as Unrestricted electives for CpE

# APMA elective (3080 or 3120) counts as unrestricted elective for CpE

*Students are advised to double check the CS handbook for the specific rules pertaining to electives.*

Note that double majors do two capstones

JBDugan October 2013