### UCSC Baskin School of Engineering
### Computer Science BA Degree
### Curriculum Chart
### 2005-2006

- **Math 19A placement or AMS 3 or Math 3 or 11A**
  - **CMPS 12A/L** Intro to Programming

- **CMPS 12A/L** or
  - **CMPE 12/L** Computer Systems & Assembly Language

- **CMPS 12A/L or experience**
  - **CMPE 12/L** Data Structures

- **Math 19A placement or AMS 3 or Math 3 or 11A**
  - **CMPE 16** Discrete Math

- **Math 19B or Math 23A**
  - **AMS 27/L** Engineering Math

- **Math 19B**
  - **MATH 23A** Multivariable Calculus

- **Math 19A**
  - **MATH 19B or 20B** Calculus

- **CMPS 12B/M, CMPE 16**, Math 19B, # Math (see below)
  - **CMPS 101** Abstract Data Types

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#### In addition, eight upper division electives are required:

**A)** One upper division School of Engineering elective of your choice.

**B)** Seven upper division courses from the Theory and Practice list as follows:

- a) a minimum of 3 courses must be from the Theory List [T],
- b) a minimum of 3 courses must be from the Practice List [P], and
- c) they must include all 3 courses from one of the Depth Sequences listed below

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<table>
<thead>
<tr>
<th>Compilers &amp; Lang. Theory</th>
<th>Oper. Syst. &amp; Hardware</th>
<th>Theory</th>
<th>Graphics</th>
<th>Software Methodology</th>
<th>Databases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CE 12L, CS 101</strong></td>
<td><strong>CMPE 100/L [P]</strong></td>
<td><strong>CMPS 101</strong></td>
<td><strong>CMPS 160</strong></td>
<td><strong>CMPS 101</strong></td>
<td><strong>CMPS 180</strong></td>
</tr>
<tr>
<td><strong>CMPS 14A [P]</strong></td>
<td><strong>CMPE 100/L [P]</strong></td>
<td><strong>CMPS 102 [T]</strong></td>
<td><strong>CMPS 160</strong></td>
<td><strong>CMPS 101</strong></td>
<td><strong>CMPS 180</strong></td>
</tr>
<tr>
<td><strong>CMPS 112 [P]</strong></td>
<td><strong>CMPE 110 [P]</strong></td>
<td><strong>CMPS 104</strong></td>
<td><strong>CMPS 161/L</strong></td>
<td><strong>CMPS 101</strong></td>
<td><strong>CMPS 180</strong></td>
</tr>
<tr>
<td><strong>CMPS 104A [P]</strong></td>
<td><strong>CMPE 110 [P]</strong></td>
<td><strong>CMPS 130 [T]</strong></td>
<td><strong>CMPS 160</strong></td>
<td><strong>CMPS 101</strong></td>
<td><strong>CMPS 180</strong></td>
</tr>
<tr>
<td><strong>CMPS 120/L</strong></td>
<td><strong>CMPE 120/L</strong></td>
<td><strong>CMPS 132 [T]</strong></td>
<td><strong>CMPS 160</strong></td>
<td><strong>CMPS 101</strong></td>
<td><strong>CMPS 180</strong></td>
</tr>
<tr>
<td><strong>AMS 3 or Math 3</strong></td>
<td><strong>AMS 27/L</strong></td>
<td><strong>CMPS 160</strong></td>
<td><strong>AMS 147 [T]</strong></td>
<td><strong>CMPS 101</strong></td>
<td><strong>CMPS 180</strong></td>
</tr>
<tr>
<td><strong>AMS 19A or 20A</strong></td>
<td><strong>AMS 27/L</strong></td>
<td><strong>AMS 147 [T]</strong></td>
<td><strong>AMS 147 [T]</strong></td>
<td><strong>CMPS 101</strong></td>
<td><strong>CMPS 180</strong></td>
</tr>
</tbody>
</table>

| **AMS 3 or Math 3**     | **AMS 27/L**           | **AMS 147 [T]** | **AMS 147 [T]** | **CMPS 101** | **CMPS 180** |

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**Exit Requirement**

- Students have three options to fulfill the Computer Science exit requirement:
  1. Pass a Capstone Course (which can also fulfill an elective requirement, see * on back for courses)
  2. Receive a score of 600 or above on the GRE Computer Science Subject Test
  3. Submit a Senior Thesis

- = Course Prerequisite
- = Satisfies Exit & Elective Requirement
# = Any 5-unit math course numbered in the 20s

See reverse side for theory and practice lists.

Shaded boxes represent foundation courses

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## Theory List

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Practice List</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMS 131</td>
<td>CMPE 100/L</td>
<td></td>
</tr>
<tr>
<td>AMS 146</td>
<td>CMPE 110</td>
<td></td>
</tr>
<tr>
<td>AMS 147</td>
<td>CMPE 113</td>
<td></td>
</tr>
<tr>
<td>AMS 156</td>
<td>CMPE 117/L</td>
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</tr>
<tr>
<td>AMS 162</td>
<td>CMPE 118/L</td>
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<tr>
<td>CMPE 107</td>
<td>*CMPE 121/L</td>
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<tr>
<td>CMPE 108</td>
<td>*CMPE 123A &amp; 123B</td>
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<tr>
<td>CMPE 154</td>
<td>*CMPE 125/L</td>
<td></td>
</tr>
<tr>
<td>CMPE 177</td>
<td>*CMPE 126/L</td>
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<tr>
<td>CMPS 102</td>
<td>CMPE 150</td>
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<tr>
<td>CMPS 130</td>
<td>*CMPE 152</td>
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<tr>
<td>CMPS 132</td>
<td>*CMPE 155/L</td>
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<tr>
<td>*EE 103</td>
<td>*CMPE 163/L</td>
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<tr>
<td>*EE 153</td>
<td>CMPS 104A</td>
<td></td>
</tr>
<tr>
<td>MATH 115</td>
<td>CMPS 104B</td>
<td></td>
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<tr>
<td>MATH 117</td>
<td>CMPS 105</td>
<td></td>
</tr>
<tr>
<td>MATH 126</td>
<td>CMPS 109 (as of '00-’01)</td>
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<tr>
<td>MATH 148</td>
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</tbody>
</table>

*This course has pre-requisites that CS majors are not required to take in their regular course of study.

**NOTE:** Students may not receive credit for both AMS 131 and CMPE 107.

Many graduate courses can also be used to satisfy the electives; however students will need instructor and department approval.

* ▲ = Course Satisfies the CS Exit Requirement and an elective requirement

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### Practice List

- AMS 146
- CMPE 110
- CMPS 111
- CMPS 112
- CMPS 115
- CMPS 116
- CMPS 122
- CMPS 123A & 123B
- CMPS 125
- CMPS 126/L
- CMPS 128
- CMPS 129
- CMPS 140
- CMPS 150
- CMPS 152
- CMPS 155/L
- CMPS 160/L
- CMPS 161/L
- CMPS 162/L
- CMPS 163/L
- CMPS 164
- CMPS 165/L
- CMPS 168
- CMPS 180
- CMPS 181
- CMPS 183
- CMPS 190X
- CMPS 190
- CMPS 204
- *EE 130/L
- CMPS 109 (as of '00-’01)