## B.S. in Computer Science ROADMAP

CALIFORNIA STATE

2011-2012 Catalog

The first two years are the same in each roadmap. These roadmaps are only examples. Your actual schedule will differ. For detailed major requirements, please consult the University Catalog. ÒGEÓ below stands for General Education and other coursework.

B.S. In C.S. Roadmap

|        | Fall                            | Winter                       | Spring                        |
|--------|---------------------------------|------------------------------|-------------------------------|
| Year 1 | CS 1160 Intro to Comp Sci I     | CS 2360 Intro to Comp Sci II | CS 2370 Intro to Comp Sci III |
|        | Math 1304 Calculus I            | Math 1305 Calculus II        | Math 2150 Discrete Struct     |
|        | GE                              | GE                           | GE                            |
| Year 2 | CS 2430 Assembly Lang           | CS 3240 Data Structures      | CS 3120 Prog Lang             |
|        | Math 2101 Linear Alg            | Stat 3601 or 3401 or 3501    | CS 3340 OOP                   |
|        | GE                              | GE                           | GE                            |
| Year 3 | CS 3430 Comp Arch               | CS 4560 Operating Systems    | CS Concentration              |
|        | CS Concentration                | CS Concentration             | CS Elective                   |
|        | GE                              | GE                           | GE                            |
| Year 4 | CS Concentration CS Elective GE | CS Elective<br>GE<br>GE      | CS Elective<br>GE<br>GE       |

Course Prerequisites: In the graph below, arcs point from one course to another if the first is a prerequisite. In the graph, arcs point from the prerequisite of a course. Consult the Catalog for details, this is a simplified representation.

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### B.S. In C.S. Roadmap: Computer Engineering Option

|        | Fall  | Winter  | Spring   |
|--------|---|---|--|
| Year 1 | CS 1160 Intro to Comp Sci I<br>Math 1304 Calculus I<br>GE | CS 2360 Intro to Comp Sci II<br>Math 1305 Calculus II<br>GE | CS 2370 Intro to Comp Sci III<br>Math 2150 Discrete Struct<br>GE |
| Year 2 | CS 2430 Assembly Lang<br>Math 2101 Linear Alg<br>GE       | CS 3240 Data Structures<br>Stat 3601 or 3401 or 3501<br>GE  | CS 3120 Prog Lang<br>CS 3340 OOP<br>GE                           |
| Year 3 | CS 3430 Comp Arch<br>Comp Engineering Conc.<br>GE         | CS 4560 Operating Systems<br>Comp Engineering Conc.<br>GE   | Comp Engineering Conc. Comp Engineering Elective GE              |
| Year 4 | Comp Engineering Conc.<br>Comp Engineering Elective<br>GE | Comp Engineering Conc. Comp Engineering Elective GE         | Comp Engineering Conc. Comp Engineering Elective GE              |

### B.S. In C.S. Roadmap D Networking and Data Communications Option

|        | Fall                        | Winter                       | Spring                        |
|--------|-----------------------------|------------------------------|-------------------------------|
| Year 1 | CS 1160 Intro to Comp Sci I | CS 2360 Intro to Comp Sci II | CS 2370 Intro to Comp Sci III |
|        | Math 1304 Calculus I        | Math 1305 Calculus II        | Math 2150 Discrete Struct     |
|        | GE                          | GE                           | GE                            |
| Year 2 | CS 2430 Assembly Lang       | CS 3240 Data Structures      | CS 3120 Prog Lang             |
|        | Math 2101 Linear Alg        | Stat 3601 or 3401 or 3501    | CS 3340 OOP                   |
|        | GE                          | GE                           | GE                            |
| Year 3 | CS 3430 Comp Arch           | CS 4560 Operating Systems    | CS 4590 Comp Networks         |
|        | CS 3560 Systems Prog        | CS 3590 Data Comm.           | CS Concentration              |
|        | GE                          | GE                           | GE                            |
| Year 4 | CS Concentration            | CS Concentration             | Networking Elective           |
|        | Networking Elective         | Networking Elective          | GE                            |
|        | GE                          | GE                           | GE                            |

### B.S. In C.S. Roadmap: Software Engineering Option

|        | Fall                                 | Winter  | Spring  |
|--------|--------------------------------------|---|---|
| Year 1 | CS 1160 Intro to Comp Sci I          | CS 2360 Intro to Comp Sci II                      | CS 2370 Intro to Comp Sci III                           |
|        | Math 1304 Calculus I                 | Math 1305 Calculus II                             | Math 2150 Discrete Struct                               |
|        | GE                                   | GE  | GE  |
| Year 2 | CS 2430 Assembly Lang                | CS 3240 Data Structures                           | CS 3120 Prog Lang                                       |
|        | Math 2101 Linear Alg                 | Stat 3601 or 3401 or 3501                         | CS 3340 OOP   |
|        | GE                                   | GE  | GE  |
| Year 3 | CS 3430 Comp Arch                    | CS 4560 Operating Systems                         | Software Engineering Conc.                              |
|        | Software Engineering Conc.           | Software Engineering Conc.                        | CS Concentration  |
|        | GE                                   | GE  | GE  |
| Year 4 | CS Concentration CS Concentration GE | Software Engineering Elective CS Concentration GE | Software Engineering Elective<br>CS Concentration<br>GE |