

**Bachelor of Science in Computer Science**

The purpose of the Degree Roadmap is to serve as a guide for planning one's academic coursework required to complete a specific major semester by semester. Before enrolling, you can use the Degree Roadmap to get a feel for the courses you'll take in this major. After enrolling, refer to the University Catalog, Class Schedule and consult with your academic advisor each semester for advisement to specify which courses you will take to fulfill each graduation

requirement and are progressing toward graduation in a timely manner as possible. **The Degree Roadmap is subject to change and is NOT to be considered a replacement for advisement with an academic advisor.** See *University Catalog* for information on the Graduate Writing Assessment Requirement (GWAR). *A minimum of 120 units are required for completion of degree. \*See reverse side for General Education (GE) course requirements.*

Course	Unit
<b>SEMESTER 1</b>	
GE Area A1 Composition I	3
GE Area C or D	3
GE Area C or D	3
MAT 191	5
CSC 121	4

Course	Unit
<b>SEMESTER 2</b>	
GE Area A1 Composition II	3
PHY 130	5
MAT 271	3
CSC 123	4
GE Area C or D	3

Course	Unit
<b>SEMESTER 3</b>	
GE Area A3 Oral Communication	3
GE Area B2 Life Science	3
GE Area B3 Science Laboratory	1
GE Area C or D	3
MAT 193	5
MAT 281	3

Course	Unit
<b>SEMESTER 4</b>	
CSC 221	3
PHY 132	5
GE Area C or D	3
GE Area C or D	3
GE Area E Whole Person	3

Course	Unit
<b>SEMESTER 5</b>	
GE Area A2 Critical Thinking	3
CSC Lower Division Elective	3
GE Humanities 200	3
CSC 311	3

Course	Unit
<b>SEMESTER 6</b>	
CSC 321	3
CSC 331	3
MAT 321	3
CSC 301	3
GWAR Requirement	3

Course	Unit
<b>SEMESTER 7</b>	
CSC 341	3
MAT 361	3
CSC 401	3
CSC 481	3
GE Area F1 UD Humanities	3

Course	Unit
<b>SEMESTER 8</b>	
CSC 492	3
CSC Upper Division Elective	3
CSC Upper Division Elective	3
GE Area F2 UD Natural Sciences or F3 UD Social Science & Cultural Pluralism	3

**Total Units: 120**

**Learn More**

- To learn more about the Bachelor of Science in Computer Science at CSUDH, call the Department of Computer Science at (310) 243-3398, visit NSM A-132, or visit [CSUDH.EDU/cnbs/dept/](http://CSUDH.EDU/cnbs/dept/).
- For more information on applying to CSUDH, visit [CSUDH.EDU/Future-Students](http://CSUDH.EDU/Future-Students).
- Apply online at **CAL STATE APPLY** website at [CALSTATE.EDU/Apply](http://CALSTATE.EDU/Apply).
- Career information, visit [CSUDH.EDU/Career-Center](http://CSUDH.EDU/Career-Center).

## Bachelor of Science in Computer Science

### Faculty

Mohsen Beheshti, Department Chair; Antonia Boadi, Jianchao (Jack) Han, Marek Suchenek, Bin Tang

### Career Options

Entry level positions in the areas of systems analysis, systems programming, applications programming, data engineering, data communications and software engineering provide typical career opportunities for computer science graduates. Such positions are available in a wide variety of software vendors, aerospace and defense related industries, manufacturing and commercial firms, and government and other public agencies. Many graduates have also gone on to graduate school. Job opportunities for computer science graduates continue to be excellent because of the continued long-term growth of the computer industry.

### \*General Education (GE) Requirements

#### A. Basic Skills:

Courses must be passed with a grade of "C" or higher.

GE A1: ENG 110 or (ENG 108 and ENG 109), and ENG 111

GE A2: MAT 271, PHI 120 or PSY 110

GE A3: THE 120

GE A4: CSC 101 or LIB 150 (Library Skills optional category.)

#### B. Area of the Natural Sciences and Quantitative Reasoning:

Select one course from each category below. Category 4 courses must be passed with a grade of "C" or higher.

GE B1: CHE 102, EAR 100, GEO 200, PHY 100

GE B2: ANT 101, BIO 102

GE B3: BIO 103 (concurrent enrollment in BIO 102 or prior life science course recommended), EAR 101 (concurrent enrollment EAR 100 or prior earth science course recommended), CHE 103

Students majoring or minoring in one of the natural sciences may substitute more advanced science courses. These students should see a faculty advisor.

GE B4: MAT 105, 131, 132, 151, 153, 171, 191, 193

#### C. Area of the Humanities:

Select one course from each category below. Select an additional course from either category. A student may not take all 3 courses in this area from a single academic department.

GE C2: AFS 205, ART 100, 101, CHS 125, COM 130, DAN 130, MUS 101, 110, 201, 250, THE 100, 160

GE C3: AFS 200, 231, APP 101, CHS 100, 205, ENG 230, FRE 220, HUM 200, 212, PHI 101, 102, SPA 151, 221

#### D. Area of the Social Sciences:

Select one course from each category below.

In categories 1 and 2, select courses from different departments.

GE D1: AFS 212, 220, ANT 100, APP 212, CHS 212, ECO 210, 211, LBS 205, LAW 240, PSY 101, SOC 101, 102, WMS 250

GE D2: AFS 201, ANT 102, CHS 200, GEO 100, HIS 120, 121, LBR 200, MGT 200, POL 100

GE D3: HIS 101

GE D4: POL 101

(Note: Students who satisfy the category 3 and 4 requirements by non-credit exams will need to complete 9 units in area D.

Select three courses in categories 1 and 2 from 3 different departments.)

#### E. Objectives for Lifelong Learning and Self-Development:

Select one course from the following.

GE E: BUS 100, CIS 275, FIN 200, HEA 100, 201, KIN 235, REC 100, UNV 101

#### F. Upper Division Integrative Studies:

Select one course from each category. Courses in this category are to be taken after 60 semester units and ALL lower division General Education courses have been completed.

GE F1: APP 315, CHS 340, 345, HIS 376, HUM 310, 312, 314, IDS 312, MUS 345, 486, THE 315, 317, 319

GE F2: BIO 340, CSC 301, SMT 310, 312, 314, 416

GE F3: ANT 334, 371, APP 311, 327, CHS 323, 330, 335, GEO 318, HEA 468, HIS 340, 348, 354, 380, IDS 318, SBS 318

GE F4: Students may select a course from this category to satisfy one of the upper division General Education requirements (Humanities, Social Sciences or Natural Sciences and Technology) which it meets, enrolling in the section listed for that requirement in a given term. An Integrative Studies course may be used to satisfy either of the area requirements for which it is listed, but only one area requirement may be satisfied by each Integrative Studies F4 course.

#### G. Cultural Pluralism Requirement:

Within their General Education selections or within other requirements, all students must take one course which addresses cultural pluralism (i.e. the impact of the integration of cultures).

GE G: ANT 312, 334, 336, 337, 338, 339, 340, 342, 371, 389, APP 311, 327, CHS 323, 330, 335, GEO 318, HEA 468, HIS 305, 340, 348, 354, 376, 380, IDS 318, MUS 401, PHI 383, SBS 318, SOC 322, 331, 383

(Note: ANT 334, 371, APP 311, 327, CHS 323, 330, 335, GEO 318, HEA 468, HIS 340, 348, 354, 380, IDS 318 or SBS 318, will satisfy both the Integrative Studies in Social Science and the Cultural Pluralism Requirement. Students will receive only three units, but will have met both requirements.)

*Last modified: 2016-2017*