BS SOFTWARE ENGINEERING  Flowchart

MAJOR COURSES

CSC 101 Fundamentals of Computer Science I ....... 4
CSC 102 Fundamentals of Computer Science II
or CSC 108 Accelerated Intro Computer Science 4
CSC 103 Fundamentals of Computer Science III .... 4
CSC 141 Discrete Structures I ............................. 4
CSC 225 Intro to Computer Organization.............. 4
CSC 300 Professional Responsibilities ............... 4
CSC 305 Individual Software Design & Dev .......... 4
CSC 308 Software Engineering I ........................... 4
CSC 309 Software Engineering II .......................... 4
CSC 349 Design and Analysis of Algorithms ......... 4
CSC 357 Systems Programming ........................... 4
CSC 402 Software Requirements Engineering ....... 4
CSC 405 Software Construction .......................... 4
CSC 406 Software Deployment ........................... 4
CSC 430 Programming Languages I .................... 4
CSC 453 Intro to Operating Systems .................... 4
CSC 484 User-Centered Interface Design & Dev. .... 4
CSC 491, 492 Senior Project Design Lab I, II ....... 2,3

1 Technical electives. ........................................ 20

Select from Category 1 and 2 in technical electives guidelines, below.

1.2 Approved cooperative education experience via
CSC 400 or technical elective equivalent ............. 4

Area A Communication (8 units)

A1 Expository Writing ...................................... 4
A2 Oral Communication ................................... 4
A3 Reasoning, Argumentation and Writing * 4
units in Support ................................................ 0

Area B Science and Mathematics (no add’l units req’d)

B1 Mathematics/Statistics * 8 units in Support .... 0
B2 Life Science * 4 units in Support ..................... 0
B3 Physical Science * 4 units in Support .............. 0
B4 One lab taken with a B3 course
B5 (requirement for Liberal Arts students only)
B6 Upper-division Area B * 4 units in Support ...... 0
Additional Area B units * 8 units in Support .. 0

Area C Arts and Humanities (16 units)

C1 Literature .................................................. 4
C2 Philosophy .................................................. 4
C3 Fine/Performing Arts ................................... 4
C4 Upper-division elective ............................... 4

Area D/E Society and the Individual (12 units)

D1 The American Experience (40404) ................. 4
D2 Political Economy ....................................... 4
D3 Comparative Social Institutions ..................... 4
D4 Self Dev (CSU Area E) * 4 units in Support .... 0

FREE ELECTIVES .............................................. 0

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Technical Electives Guidelines

BS Software Engineering

Courses used to satisfy any other major, support, or general education requirement are not allowed to count toward Technical Elective requirement. Credit/No Credit grading is not allowed.

Contact the CSC Department for further information.

Category 1

Category 1a: Prerequisites and Individual Courses 8
Select 8 units from the following:

CSC/CPE 341/342, 365, 369, 448, 464, 471, 477,
480, 484, 488, 587

Select either

CHEM 124, 125, 129 or
PHYS 141, 132, 133

STAT 312 Statistical Methods for Engineers (B6)* 4

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1 Consultation with advisor is recommended prior to selecting approved electives; bear in mind your selections may impact pursuit of post-baccalaureate studies and/or goals.

2 CSC/CPE 123 replaces this requirement for freshmen and transfer students admitted Fall 2010. (4/29/10)
Category 1b: Specialization Areas

Select 4 units from each of two separate areas:

Graphics: CSC/CPE 473, 474, 475, 476, 478, or CSC 572
Databases: CSC/CPE 366, 466, 468, or CSC 560
Networks: CSC/CPE 465 or 564
Software Engineering: CSC/CPE 409, 437; CSC 508, or 509
Distributed Computing: CSC/CPE 469 or 569
OS: CSC/CPE 454, 456, 458, or CSC 550
Architecture: CSC/CPE 315, 316, 416, 459, 520, or CPE 482 "Robotics"
Languages/Compilers: CSC/CPE 431, 434, or CSC 530
GUI/HCI: CSC/CPE 435, 483, 487, 581, or CSC 486
Artificial Intelligence: CSC/CPE 416, 481, 485, 489, 580, 581, or CSC 482 "Autonomous Mobile Robots" or Multi-Robot Systems",
Computational Sciences/Theory: CSC/CPE 449, CSC 343, 445, 540, or 541

Category 2

Select 4 units from the following:

+ Additional CSC/CPE Electives
  Select any unused course from Categories 1a or 1b or from upper division courses approved as technical electives by CSC Department;

+ Auxiliary CSC/CPE Electives
  Select from:
  CSC 358, 400 (requires form/approval; cannot double count for Category 3 technical elective), 479 (maximum 2 units), 490

+ External Electives
  Select from:
  AERO 450;
  ART 384;
  BUS 310, 320;
  CHEM 312, 316, 317, 318;
  ECON 339;
  EE 201/251, 314, 336, 424;
  ENVE 542;
  GRC 316, 331, 338;
  IME 301, 314, 356;
  MATH 206, 242, 248, 304, 341, 350, 412;
  ME 211, 212, 405;
  PHIL 412, 422;
  PSY 329, 333, 366, 457;
  STAT 323, 324, 330

Category 3 Cooperative Education Experience

CSC 400 (requires form/approval) or technical elective equivalent. CSC 400 credit is limited to 4 units and it cannot be used in Category 2 and Category 3. Contact the CSC Department for further information.