California State Polytechnic University, Pomona
Degree Curriculum Sheet

Plan (Major) **COMPUTER SCIENCE**

Subplan/Option _____

Catalog Year ___**2017-2018**___

Minimum Units Required ___**180**___

Name _____

Student ID _____

Required Core Courses

CS 130 - Discrete Structures (4)
CS 140 - Introduction to Computer Science (4)
CS 141 - Introduction to Programming and Problem-Solving (4)
CS 210 - Computer Logic (4)
CS 240 - Data Structures and Algorithms I (4)
CS 241 - Data Structures and Algorithms II (4)
CS 256 - C++ Programming (4)
CS 264 - Computer Organization and Assembly Programming (4)
CS 301 - Numerical Methods (4)
CS 311 - Formal Languages and Automata (4)
CS 331 - Design and Analysis of Algorithms (4)
CS 365 - Computer Architecture (4)
CS 408 - Programming Languages (4)
CS 431 - Operating Systems (4)
CS 463 - Undergraduate Seminar (2)
CS 480 - Software Engineering (4)

Total Units 62

Elective Core Courses

At least 20 units from:

CS 245 - Programming Graphical User Interfaces (4)
CS 260 - Unix and Scripting (4)
CS 352 - Symbolic Programming (4)
CS 356 - Object-Oriented Design and Programming (4)
CS 370 - Parallel Processing (4)
CS 380 - Computer Networks (4)
CS 411 - Compilers and Interpreters (4)
CS 420 - Artificial Intelligence (4)
CS 435 - Database Systems (4)
CS 445 - Computer Graphics (4)
CS 450 - Computability (4)
CS 460 - Secure Communication (4)
CS 470 - Game Development (4)
CS 481 - Software Engineering Practice (4)
CS 490 - Honors (4)
CS 499/499A/499L - Special Topics for Upper Division Students (1-4/1-4/1-4)

Continue to next column

Elective Core Courses Con't.

No more than 4 units from:

CS 200 - Special Study for Lower Division Students (1-2)
CS 299/299A/299L - Special Topics for Lower Division Students (1-4/1-4/1-4)
CS 400 - Special Study for Upper Division Students (1-2)
CS 461 - Senior Project (2)
CS 462 - Senior Project (2)
EGR 461 - Engineering Interdisciplinary Clinic I (3)
EGR 462 - Engineering Interdisciplinary Clinic II (3)
EGR 463 - Engineering Interdisciplinary Clinic III (3)
MAT 216 - Differential Equations (4)
MAT 370 - Graph Theory (4)
MAT 380 - Mathematics of Operations Research (4)
MAT 381 - Mathematics of Operations Research (4)
MAT 402 - Numerical Methods in Differential Equations (4)
MAT 470 - Combinatorics (4)
MAT 480 - Mathematical Programming (4)
MAT 485 - Mathematical Modeling and Simulation (4)
MAT 486 - Mathematical Modeling and Simulation (4)
SCI 470 - Cooperative Education (1-4)
SCI 471 - Cooperative Education (1-4)
SCI 472 - Cooperative Education (1-4)
SCI 473 - Cooperative Education (1-4)

Total Units 23

Required Support Courses

The following major support courses should be used to satisfy the indicated GE requirements. If these courses are not used to satisfy GE, the total units to degree may be more than 180 units.
BIO 110/111L - Life Science (3/1) (B2, B3)
CS 375 - Computers and Society (4) (B5 or D4)
MAT 114 - Analytic Geometry and Calculus I (4) (B4)
MAT 115 - Analytic Geometry and Calculus II (4)
MAT 116 - Analytic Geometry and Calculus III (4)
MAT 208 - Introduction to Linear Algebra (4)
MAT 214 - Calculus of Several Variables I (3)

PHY 131 - General Physics (3) (B1) and
PHY 131L - General Physics Laboratory (1) (B3)

PHY 132 - General Physics (3) and
PHY 132L - General Physics Laboratory (1)

PHY 133 - General Physics (3) and
PHY 133L - General Physics Laboratory (1)

STA 326 - Statistical Methods for Computer Scientists (4)

Total Units 43

General Education Requirements

Area A Communication & Critical Thinking (12 units)
  1. Oral Communication
  2. Written Communication
  3. Critical Thinking

Area B Mathematics & Natural Sciences (16 units)
  1. Physical Science
  2. Biological Science
  3. Laboratory Activity
  4. Math/Quantitative Reasoning
  5. Science & Technology Synthesis

Area C Humanities (16 units)
  1. Visual and Performing Arts
  2. Philosophy and Civilization
  3. Literature and Foreign Language
  4. Humanities Synthesis

Area D Social Sciences (20 units)
  1. U.S. History, Constitution, American Ideals
    a. United States History
    b. Introduction to American Government
  2. History, Economics and Political Science
  3. Sociology, Anthropology, Ethnic & Gender Studies
  4. Social Science Synthesis

Area E Lifelong Understanding & Self Development (4 units)

Total Units 68

American Institutions Courses that satisfy this requirement may also satisfy GE Area D1	8

American Cultural Perspectives Requirement Refer to the University Catalog General Education Program section for a list of courses that satisfy this requirement. Course may also satisfy major, minor, GE, or unrestricted elective requirements.	4

All persons who receive undergraduate degrees from Cal Poly Pomona must pass the Graduation Writing Test (GWT). The test must be taken by the quarter following completion of 120 units for undergraduates.