

# COMPUTER SCIENCE

Building 14, Room 254 805-756-2824 csc.calpoly.edu

### PROGRAM DESCRIPTION

Computer science plays a pivotal role in tackling every national and global challenge. Mobile computing, artificial intelligence, natural language processing, cybersecurity, big data, cloud computing, social networks, bioinformatics, sustainable computing, human computer interaction, robotics, wearable computing, game design/development, interactive entertainment and the Internet of Things are just a few examples of how computer science is shaping our society and directly helping the human race.

## **OUR MISSION**

Cal Poly computer science educates students using our signature Learn by Doing paradigm allowing students to apply their education to solve practical problems in a socially responsible way. Our graduates are fully prepared for entry into industry, government, graduate school and private enterprise.

687
undergraduate
students

enrolled in computer science

30 graduate students

enrolled in the blended B.S. and M.S. programs



related minors:

- Bioinformatics
   Computing for Interactive Arts
- Cross-Disciplinary
   Studies in Data Science

# CONCENTRATIONS

The interactive entertainment concentration prepares students for technical-oriented careers relating to computer graphics, digital animation, video games and interactive experiences. While not formal concentrations, the computer science major offers a wide choice of technical electives that allow you to focus on particular areas of computer science, including databases, distributed computing, software engineering, programming languages, graphical user interfaces, operating systems, computer networks and artificial intelligence.



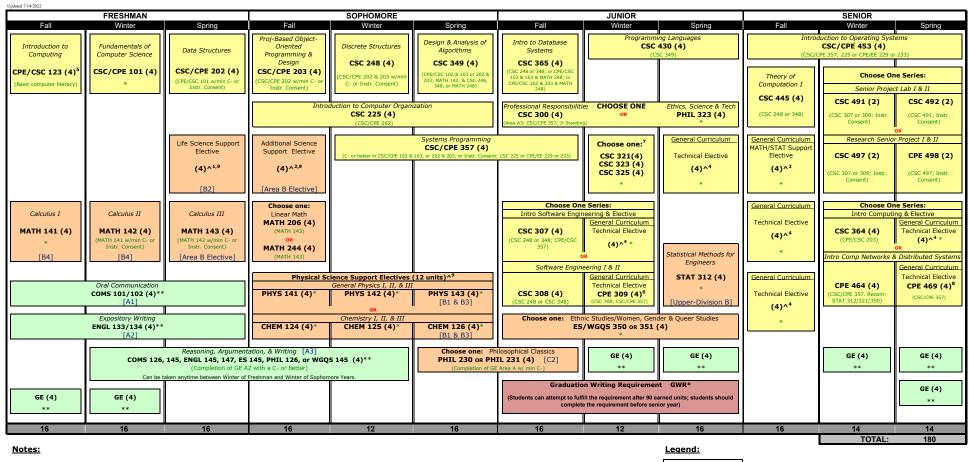
# **ASSOCIATED CLUBS**

- Cal Poly App Development Club polyappdev.club
- Cal Poly Game Development Club (CPGD) cpgd.org/
- $\bullet \ \, {\bf Cal\ Poly\ Linux\ Users\ Group\ (CPLUG)} {\bf cplug.org}$
- Cal Poly Robotics Club calpolyrobotics.com
- Color Coded (Diversity in Tech) www.colorcoded.cc
- SLOHacks slohacks.com
- Society of Women Engineers swe.calpoly.edu
- White Hat thewhitehat.club
- Women Involved in Software & Hardware (WISH) calpoly.edu/~wish



# **B.S. IN COMPUTER SCIENCE**

Suggested Four-year Academic Flowchart • 2022-2026 Catalog



#### MOST GENERAL EDUCATION COURSES CAN BE TAKEN IN ANY ORDER AS LONG AS PREREQUISITES ARE MET

- \* Refer to current catalog for prerequisites.
- \*\* One course from each of the following GE areas must be completed: A1, A2, A3, C1, Lower-Division C Elective, Upper-Division C, D1, Area D Elective, Lower-Division E, and F. Upper-Division C should be taken only after Junior standing is reached (90 units).

Refer to online catalog for GE course selection, United States Cultural Pluralism (USCP) and Graduation Writing Requirement (GWR).

USCP requirement can be satisfied by some (but not all) courses within GE categories: C1, Upper-Division C, D1, D2, Upper-Division D, or E.

- \*\*\* Refer to current catalog for course selection.
- ^ Cannot double count units.
- † Course can be taken previously or concurrently.
- <sup>1</sup> Select 4 units from the following "Life Science" Support Electives: BIO 111, 161, 213 & BMED 213; BOT 121; MCRO 221.
- <sup>2</sup> Select 4 units from the following "Additional Science" Support Electives: BIO 111, 161; BOT 121; CHEM 124; MCRO 221; PHYS 141.
- <sup>3</sup> Select 4 units from the following "MATH/STAT Support Electives": MATH 241, 248, 306, 334, 335, 437, 470; STAT 323, 324, 330, 331, 334, 416, 418, 419, 434.
- <sup>4</sup> Select 20 units from the Technical Electives Guidelines in the online catalog.
- <sup>5</sup> Although new students are strongly encouraged to take CSC/CPE 123, an additional 4 units of CPE/CSC Technical Electives within your selected concentration or, if not selected, the General Curriculum may substitute for CSC/CPE 123.
- <sup>6</sup> CSC 309 counts as a Technical Elective. Students in the Artificial Intelligence and Machine Learning concentration or the Privacy and Security concentration are advised to take CSC 307 instead of CSC 308 and CSC 309.
- <sup>7</sup> Students in the Privacy and Security Concentration must take CSC 321.
- <sup>8</sup> CPE 469 counts as a Technical Elective for the General Curriculum, and the following concentrations: Graphics, Privacy and Security, and Data Engineering.
- 9 No double-counting is allowed between Additional Science Support Elective and Life Science Support Elective or Physical Science Support Elective.
- 10 If a General Education (GE) course is used to satisfy a Major or Support requirement, additional units of Free Electives may be needed to complete the total units required for the degree.

