C S 78D: SPECIAL TOPICS IN COMPUTER SCIENCE

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2022
Units:	4.5
Hours:	4 lecture, 2 laboratory per week (72 total per quarter)
Advisory:	C S 1A, C S 2A, C S 3A or C S 49.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	CSU
Grade Type:	Letter Grade (Request for Pass/No Pass)
Repeatability:	Not Repeatable

Student Learning Outcomes

- Students will be able to explain and, where possible, apply the concepts of the chosen special topic.
- Students will be able to explain how the special topic concepts in relation to the wider field of computer science, including impacts on diversity, equity and inclusion.

Description

Examination of selected topics relating to the Computer Science discipline. Subject matter will vary.

Course Objectives

The student will be able to:

a. Analyze and explore selected topics in computer science.
b. Complete programming or other projects appropriate to the selected topics.

Course Content

Possible special topics focusing on computer science issues within the following areas of specialization (but not limited to):

a. Emerging programming languages
b. Mobile applications
c. Networking
d. Machine learning and artificial intelligence
e. Operating systems
f. Database systems
g. Data analysis
h. Computer graphics
i. Web development
j. Blockchain

Lab Content

Lab content to support the selected topic.

Special Facilities and/or Equipment

Access to a computer laboratory with the appropriate software.

Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

Presentations
Written assignments, which include source code, sample runs and documentation
Tests and quizzes
Final examination

Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

Lectures pertinent to the selected topics
Discussion which engages students and instructor in an ongoing dialog about the selected topics

Representative Text(s) and Other Materials

Current texts based on selected topic.

Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

a. Reading Assignments:
    i. Assigned textbook or directed research averaging 5 pages per week
    ii. Instructor curated material averaging 3 pages per week
b. Writing Assignments:
    i. Writing technical prose documentation that supports and describes projects that are submitted for grades
    ii. Synthesizing and reporting research results

Discipline(s)

Computer Science