CURRICULUM GUIDE
2016-2017

COMPUTER SCIENCE FOR TRANSFER

Associate in Science in Computer Science for Transfer (ADT)

The Student Transfer Achievement Reform Act (Senate Bill 1440, codified in California Education Code sections 66746-66749) guarantees admission to a California State University (CSU) campus for any community college student who completes an "associate degree for transfer," a newly established variation of the associate degrees traditionally offered at a California community college. The Associate in Science in Computer Science for Transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Students should consult with a counselor when planning to complete the degree for more information on university admission and transfer requirements.

The goals and objectives of the Associate in Science in Computer Science for Transfer are to prepare students for seamless transfer to a CSU. The Computer Science program prepares students for employment in careers in Information Technology such as computer programming and for transfer to baccalaureate institutions in order to pursue an advanced degree. Transfer students need to focus on integrating theory and the hands-on skills using current tools and technologies.

Requirements for Associate in Science for Transfer Degree:

a) Complete Major Field courses with a grade of C or better.
b) Complete IGETC for CSU (Plan C) requirements. These requirements are specified in the Ohlone College catalog.
c) Complete 60 CSU-transferable semester units.
d) Obtain a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum GPA of 2.0 is required for admission, some majors may require a higher GPA. Please consult with a counselor for more information.
e) Complete 30 semester units in the Computer Science major.
f) Complete at least 12 units at Ohlone College.

Student Learning Outcomes

1. Design an algorithm using psuedocode and implement a computer program to solve the problem. Demonstrate debugging techniques to find and resolve logic errors discovered during testing.
2. Demonstrate knowledge of fundamental computer science concepts such as software and hardware architecture, logic, and discrete structures.
3. Demonstrate knowledge of the basic data structures: stacks, lists, trees, graphs, queues, and sets. Analyze which of several methods involving data structures is most appropriate for solving a particular problem, then implement them in appropriate applications, such as sorting and searching.

MAJOR FIELD

CS-102	Introduction to Computer Programming Using C++	3
CS-113	Discrete Structures	3
CS-118	Introduction to Assembly Language Programming	3
CS-124	Programming with Data Structures	3
MATH-101A	Calculus With Analytic Geometry	5
MATH-101B	Calculus With Analytic Geometry	5
PHYS-140	Mechanics	4
PHYS-141	Electricity and Magnetism	4

Total Required Units: 30