

Chemeketa Community College
4000 Lancaster Drive NE
PO Box 14007
Salem, Oregon 97309

Course Outline

Course Identification CS160 **Credits** 3 **Date** 6/06

Course Title: Introduction To Computer Science

Total Instructional Hours, for Course, per Term:

<u>33</u> Lecture Hours	[=	<u>3</u> Credit(s)]
<u>0</u> Laboratory Hours	[=	<u>0</u> Credit(s)]

Prerequisite Course(s):

CS101 Introduction to Microcomputer Applications, or CIS120 Computer Information Science 1, or consent of instructor. Computer Science transfer students should co-enroll in CS161 Computer Science I.

Required Text(s):

Brookshear, *Computer Science: Overview*, Addison-Wesley.

Course Description:

A survey of historical background, current and future trends in computer science, hardware, software development. Surveys campus computing resources. Introduces Internet facilities and usage, network basics.

Performance Based Learner Outcomes:

Upon successful completion of the course, students should be able to:

1. Identify the computing resources available to students on campus and the appropriate uses of each.
2. Demonstrate correct access to popular Internet facilities; identify methods of information retrieval that minimize unproductive use of time.
3. Analyze the societal issues that arise as a result of the increased use of electronic communication.
4. Review the historical and technical evolution of computer science in the 20th century and its impact on the field today.
5. Assess the direction that hardware and software development may take in the next ten years and its impact on jobs for future computer professionals.
6. Describe the interrelationship between operating systems, programming languages and software engineering in the context of efficient and correctly operating computer systems.

Course Content Outline:

- I. Chemeketa Computing Resources
 - A. Computer labs
 - B. Media facilities
 - C. Library facilities
 - D. Resources and services
 - E. Computing terminology
 - F. Hardware and software basics
 - G. Storage basics

- II. Internet Introduction
 - A. Von Neumann Architecture
 - B. Network basics
 - C. E-mail
 - D. World Wide Web
 - E. Usenet and bulletin boards

- III. The Field of Computer Science
 - A. Historical and technical development
 - B. CISC vs. RISC machines
 - C. Operating systems
 - D. Programming languages
 - E. Parallel processors
 - F. Software engineering
 - G. Artificial intelligence
 - H. Employment opportunities
 - I. Future development trends