Chemeketa Community College
4000 Lancaster Drive NE
PO Box 14007
Salem, OR 97309-7070

Course Info

Term: Summer, 2019
17951
Credits: 4

Time and Location

Room 6-200
T/W 12:30-2:20

Instructor

Jonathan Hiatt
jonathan.hiatt@chemeketa.edu
503-399-6091

Office Hours

No office hours during summer

Advising & Counseling

Academic advising is available for any Chemeketa student and is required for all first year, degree or certificate seeking students. Meeting with an advisor can help clarify your academic and life goals, choose classes that prepare you for a career, and/or identify transfer options. Instructors are also available to discuss class, degree, and career options. Appointments may be made online through ChemekNET in MyChemeketa.

Student Resources

Student Computer Center :
Bldg. 9, Rm. 200, 503-399-5043

Study Skills Center:
Bldg. 2, Rm. 212, 503-399-5162

Tutoring Services:
Bldg. 2, Rm. 210, 503-399-5190

CS-160
Introduction to Computer Science
Course Syllabus

Course Description

Explores the disciplines and professions of Computer Science and Software Engineering. Overviews computer hardware and software architecture, the study of algorithms, software design and development, data representation and organization, problem-solving strategies, ethics in the digital world, and the history of computing and its influences on society. Explores career options and begins the process of planning a program of study. Exposes students to both low-level and high-level programming languages.

Required Text/Materials

Nine Algorithms That Changed the Future, *John MacCormick*

Online/Digital class materials can be found on eLearn or my faculty site:
http://elearn.chemeketa.edu
http://faculty.chemeketa.edu/jhiatt6/

Prerequisites

Computer literacy (equivalent to CIS101 or CIS120) and completion or co-enrollment in MTH111 College Algebra, or consent of instructor.

Performance Based Learner Outcomes

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

- Define the field of computer science and related fields (computer engineering, information technology, information systems, software engineering); describe what practitioners of each of these fields do.
- Describe the educational requirements and options available to those wanting to enter any of the professions in computing.
- Review the historical and technical evolution of computing and its impact on the field today.
- Interpret computer representations of different types of information.
- Build and analyze a simple logical circuit.
- Describe the commonly used architecture of digital computers, and the function and relationships of the primary components of digital computers.
- Follow and write simple programs in assembly and a higher level programming language.
- Develop algorithms to solve computational problems.
- Describe the limits of computation, and current big issues and future directions for computer science.

Primary Teaching Method

In-person course ***(Web required)*** – Lecture and activities, supported by additional web resources.

On-line course – On-line tutorials, interactive media, readings. Weekly outlines of topics and requirements are provided on the class website.

ADA

Accommodations are collaborative efforts between students, faculty, and Disability Services. If you have already been approved for accommodations and requested them for this term, both you and I receive a Letter of Accommodation by e-mail. It is important that we discuss the accommodations as early in the term as possible. Students who believe they are eligible for accommodations but who have not yet obtained approval through Disability Services should phone 503.399.5192, e-mail disability@chemeketa.edu, or go to the office in Building 2.

Diversity Values

We are a college community enriched by the diversity of our students and staff. Each individual and group has the potential to contribute in our learning environment. Each has dignity. To diminish the dignity of one is to diminish the dignity of us all.

Affirmative Action

It is the policy of Chemeketa Community College and its Board that there will be no discrimination or harassment on the basis of race, religion, color, sex, age, national origin, ethnic origin, sexual orientation, gender identity, marital status, citizenship status, pregnancy and related conditions, family relationship, veteran's status, disabilities and tobacco usage in any educational programs, activities or employment. Persons having questions about equal opportunity/affirmative action should contact the Affirmative Action Officer at 4000 Lancaster Dr. NE, Salem, Oregon 97309-7070, or call 503.399.4784. To request this publication in an alternative format, please call 503.399.5192.

Academic Honesty

The presentation of another individual's work as one's own or the act of seeking unfair academic advantage through cheating, plagiarism or other dishonest means are violations of the college's "Students Rights and Responsibilities." See the College catalog or public website for definitions and violation penalties - http://www.chemeketa.edu/aboutchemeketa/collegelife/honesty/policy.html

Course Requirements

- Quizzes/Exams must be taken at the times and dates scheduled. There will be no makeup or retake quizzes or exams. If you must miss an exam due to a REAL emergency, contact me (phone or email) PRIOR to the exam time.
- Late assignments are worth reduced credit - any work turned in after an assignment has been graded is worth at most 60%.

Grading/Policies

Components		*Grade Scale*	*Notes*
Assignments	40%	A = 90-100% B = 80-89%	All weekly assignments are equally weighted as are all quizzes.
Participation	10%	C = 70-79% D = 60-69%	Participation is based on completion of weekly programming tutorials. It also includes completion of in class group activities.
Quizzes	30%	F = Below 60%	
Final Exam	20%		See the "Student Tips" page on my faculty website for more details on grading and points.

Incompletes

Incompletes will only be given for students who have satisfactorily completed most of the course work and are unable to finish the course due to an extenuating circumstance beyond their control. Examples include: extended family leave approved by the College, validated personal illness requiring an extended hospital stay, a death in the immediate family or military leave.

Course Content/Assignment Outline

Week	*Topics and Notes*	*Assignment Due*	*Quizzes*
1	CS Education and Careers / CS History		
2	Computers and binary systems	Tue - A1	
3	Data representation ***Monday is last day to drop with refund***	Tue - A2	Q1 Th-S
4	Logic and circuits	Tue - A3	
5	Computer architecture	Tue - A4	Q2 Th-S
6	Programming languages	Tue - A5	
7	Algorithmic Complexity ***Monday is last day to withdraw from classes***	Tue - A6	Q3 Th-S
8	Operating Systems & Parallelism ***Final:*** Any time, Wednesday-Thursaday in elearn	Tue - A7	Final Exam

Course Notes

- I encourage knowledge sharing between members of the class; forming study groups is very useful. That said you are each responsible for learning the material and programming skills; the quizzes/exams are NOT group projects. Please review Chemeketa's Students Rights and Responsibilities, and the campus policy on plagiarism.
- The student tips file on the CS160 course page provides more detailed descriptions of assignment policies and tips for being successful in the course: http://faculty.chemeketa.edu/jhiatt6/cs160S/welcome.html
- Remember that the syllabus is a ***guideline to this course, it is not a legal contract***. Situations may arise that could require modifications to this guide. Any changes will be announced in class or posted on the class web site.