CS-162
Computer Science 2
Course Syllabus

Course Description
The second of a three-term sequence (CS161, CS162, CS260) for computer science majors and others desiring a foundation in software development and computer programming.

Required Text/Materials
Liang, Introduction to Programming with C++ 3rd edition. Note you will need an online access code (included in books) to access pdfs of some chapters. If you are buying used/renting, you may need to buy a separate access code.

Online/Digital class materials can be found on eLearn or my faculty site:
http://elearn.chemeketa.edu
http://faculty.chemeketa.edu/ascholer/cs161/content.html

Prerequisites
A grade of C or better in each of the following: MTH111 College Algebra, and CS161 (or consent of instructor given equivalent background).

Performance Based Learner Outcomes
Upon successful completion of the class, students should be able to:

- Apply concepts of object-oriented programming (OOP) to the design of application solutions for specified problems.
- Implement advanced OOP structures using the language under study.
- Design and implement applications with graphical user interfaces (GUI development).
- Design and implement applications using error and exception handling techniques.
- Read, trace, design, and implement recursive algorithms.
- Build and use stacks, queues, and lists to assist in the design and implementation of problem solutions.
- Apply professional engineering practices to programming projects.

Primary Teaching Method
Online course: Readings, on-line tutorials, and hands-on labs focused on programming and software engineering are used to introduce computer science concepts and provide guidance in software engineering methods and principles.

On campus: Online course content supplemented with interactive lectures, discussions and classroom activities.
ADA

Accommodations are collaborative efforts between students, faculty, and the Disability Services’ office. Students with accommodations approved through Disability Services are responsible for contacting the faculty member in charge of the course, ideally prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through Disability Services should contact V/TTY 503.399.5192 or disability@chemeketa.edu

Diversity

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 - www.chemeketa.edu/attending/academic honesty/actionsteps.html

Course Requirements

- Quizzes and 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.
- Online students must take a proctored midterm and final at an approved location. Chemeketa offers proctoring for its own online courses. Most colleges have a testing center, you may need to pay to have a course from another school proctored by them. Arranging a location and making sure it is approved is the student’s responsibility.
- This is NOT a self-paced course. Late assignments are worth a maximum of 60% and are only accepted within one week of the due date. Late CPPLabs are not accepted.
- A minimal mastery of the content is necessary to be successful in the next class in the CS transfer program; a minimal mastery grade (D or better) is required on the final in order to receive a grade of C or better in the course.

Grading/Policies

<table>
<thead>
<tr>
<th>Components</th>
<th>Weight</th>
<th>Grade Scale</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Assignments</td>
<td>40%</td>
<td>A = 90-100%</td>
<td>See the “Class Policies &amp; Student Tips” page for more details.</td>
</tr>
<tr>
<td>CPPLab/Minor Assignments</td>
<td>10%</td>
<td>B = 80-89%</td>
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<tr>
<td>Quizzes</td>
<td>20%</td>
<td>C = 70-79%</td>
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<tr>
<td>Exams</td>
<td>30%</td>
<td>D = 60-69%</td>
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<td></td>
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<td>F = Below 60%</td>
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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 (visit the class web site for details)

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics and Notes</th>
<th>Assignment Due</th>
<th>Exams</th>
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<tbody>
<tr>
<td>1</td>
<td>Objects &amp; Classes</td>
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</table>
| 2    | Object Oriented Thinking: Testing & Composition  
**Friday is last day to drop with refund** | Tue - A1       | Midterm     |
| 3    | Pointers, Dynamic Memory, Aggregation                                              | Tue - A2       | Q1          |
| 4    | Inheritance                                                                       | Tue - A3       | Q2          |
| 5    | Operators                                                                         | Tue - A4       |             |
| 6    | Memory Management, Deep Copies  
**Friday is last day to withdraw from classes** | Tue - A5       |             |
| 7    | Templates                                                                         | Tue - A6       |             |
| 8    | Recursion                                                                         | Tue - A7       | Q3          |
| 9    | GUls                                                                              | Tue - A8       |             |
| 10   | STL                                                                               | Q4             |             |
|      | **FINALS**  
See schedule of classes for final date/time | Mon - A9       | Final       |

Course Notes

- READ THE STUDENT TIPS on my class web site for more detailed policies and advice.
- You should not share assignment code with anyone other than your one partner (if you have one). All individuals involved in multi-party code sharing may receive 0’s on the assignment. Code interviews may be required to verify authorship of any assignment.
- 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.