COP 3503 Programming Fundamentals for CISE Majors II, Spring 2015

Catalog Description: Credits: 3; Prereq: COP 3502 (or the equivalent), MAC 2311. The second course of a two-semester introductory sequence for students w/o prior programming experience. Major concepts of computer science and computer programming processes, including object-oriented programming, procedural and data abstraction and program modularity.

Course Perspective: While this course will heavily utilize the C++ programming language, and even teach certain aspects of it when necessary, this is NOT a C++ course. Instead, this course is designed to teach fundamental concepts of computer science. The C++ programming language will be used toward this end, as (a) establishing a common language eases communication and aid among students and the instructor, (b) utilizing the C++ language will provide necessary programming experience for later courses, and (c) it produces working programs which can be used to exemplify and practice using the topics covered in class.

Goals: By the end of the semester, successful students should be able to: (1) understand and utilize the object-oriented programming, (2) make full and constant use of procedural and data abstraction, and (3) analyze and perform testing on programs

Lecture Times and Location: Period 1, 7:25am-8:15am Mondays, Wednesdays and Fridays in NRN 0137.


Cell Phone Policy: Cell phones should be turned off during the lecture hours to provide the quite learning environment for every student in the classroom.

Exams and Assignments:

- NO Final Exam
- Two Midterm Exams (40% of the final grade) Time and date will be announced later.
- 3-4 Programming Assignments (30% of the final grade)
- Team-based Semester-long Project (30% of the final grade)
No late assignments/project or makeup exams are permitted. Cheating in assignments/projects/exams will result a “F” on your final letter grade. All grading disputes should be resolved within two weeks after the assignments/projects/exams are returned to the students.

The expected letter-grade distribution is as the following:

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<th>Final Total Score</th>
<th>vs.</th>
<th>Letter Grade</th>
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<tbody>
<tr>
<td>93 and above</td>
<td></td>
<td>A</td>
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<tr>
<td>90-92</td>
<td></td>
<td>A-</td>
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<td>87-89</td>
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<td>B+</td>
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<td>83-86</td>
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<td>80-82</td>
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<td>77-79</td>
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<td>73-76</td>
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<td>70-72</td>
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<td>67-69</td>
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<td>60-62</td>
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It is possible that grades will be curved at the end of the semester, but do not count on this. It is solely dependent upon the instructors discretion by evaluating your semester-long learning performance. Any curve that may be applied will never cause your grade to be lower than that which would be assigned by the above table.

**Important Note:** A “C-” will not be a qualifying grade for critical tracking courses. In order to graduate, students must have an overall GPA and an upper-division GPA of 2.0 or better (C or better). Note: a C- average is equivalent to a GPA of 1.67, and therefore, it does not satisfy this graduation requirement. For more information on grades and grading policies, please visit: [https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx](https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx)

**Instructor:** Dr. Jonathan C.L. Liu, CSE E444, E-mail (preferred): jcliu@cise.ufl.edu, Phone: (352) 392-1200 (leave messages), Office Hours: 12:30pm-2pm on Mondays and Wednesdays

**Teaching Assistants:** To be determined

**Topics:**

- Introduction
o Object orientation

o Value types vs. Reference Types

o Abstraction

o Inheritance

o Basic Data Structures

o Recursion

o Basic concurrency (multi-threading) concepts

**University of Florida’s Honor Code:** “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.” Details of the code can be found at http://itl.chem.ufl.edu/honor.html.

**Software Use:** All faculty, staff and student of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

**Students with Disabilities:** Students requesting classroom accommodation must first register with the Dean of Students Office at 202 Peabody Hall. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.

**University Counseling Services:** The Counseling Center provides counseling and consultation services to currently enrolled undergraduate and graduate students and their spouses/partners. The Center offers brief counseling and therapy to help students confront personal, academic, and career concerns. The primary goal of counseling is to help students develop the personal awareness and skills necessary to overcome problems and to grow and develop in ways that will allow them to take advantage of the educational opportunities at the university. Details can be found at http://www.counsel.ufl.edu