

CMPS 222 – Object-Oriented Programming

Syllabus for Winter 2016 (CRN 11296)

Instructor Jay Manibo
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Location SCI III, Room 240

Schedule

| | SUN | MON | TUE | WED | THU | FRI | SAT |
|------------------|-----|--|---------|-----|---------|---|-----|
| | | Homework from prior week is due at midnight. Homework for current week is assigned | | | | Labs for current week are due at midnight | |
| 11:30am - 1:00pm | | | | | | OFFICE HOURS BY APPOINTMENT | |
| 5:50pm - 7:30pm | | | LECTURE | | LECTURE | | |
| 7:30pm - 8:45pm | | | LAB | | LAB | | |

Course Description

Builds on foundation provided by CMPS 221 to introduce the concepts of object-oriented programming. The course focuses on the definition and use of classes and the fundamentals of object-oriented design. Other topics include: an overview of programming language principles, basic searching and sorting techniques, and an introduction to software engineering issues. Each week lecture meets for 200 minutes and lab meets for 150 minutes. Prerequisite: CMPS 221.

Prerequisite

Prerequisite: CMPS 221 with a grade of C- or higher.

Material Covered

Week 1 – CMPS 221 Review (Pointers, Structures, Dynamic Arrays)

Week 2 – Basic Classes

Week 3 – Classes, Friends, Operators, Automatic Type Conversion, Arrays of Classes, Operator Overloading

Week 4 – Copy Constructors, Separate Compilation, Operators continued

Week 5 – Characters and Strings, Destructors, Abstract Array Datatype, Memberwise Assignment, Assignment Operators, Index Operator

Week 6 – Inheritance

Week 7 – Polymorphism, Virtual Functions, Multiple Inheritance

Week 8 – Exception Handling

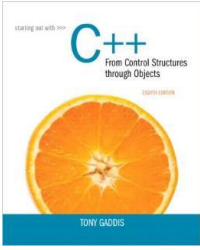
Week 9 – Template Functions, Template Classes, Standard Template Library

Week 10 – Template Classes

Attendance:

Students are responsible for their own attendance. The course material and assignments will be posted on the course website.

Textbook
HIGHLY RECOMMENDED

| | |
|---|--|
|  | <p>8th edition</p> <p>Starting Out with C++: From Control Structures through Objects Tony Gaddis</p> <p>Publisher: Addison Wesley, 2014. ISBN-10: 0133769399</p> |
|---|--|

Academic Integrity Policy:

Labs may be worked on and discussed in groups. If the assignment is a group assignment, the group may turn in one assignment for the entire group. If the assignment is an individual assignment, each student must turn in their own code; no direct copying is allowed. Refer to the Academic Integrity policy printed in the campus catalog and class schedule.

Services for Students with Disabilities:

To request academic accommodations due to a disability, please contact the Office of Services for Students with Disabilities (SSD) as soon as possible. They may be reached at 661-654-3360 (voice), or 661-654-6288 (TDD). If you have an accommodations letter from the SSD Office, please present it to me during my office hours as soon as possible so we can discuss the specific accommodations that you might need in this class.

Tutoring Center and Open Use Computer Lab:

The walk-in computer lab in Sci III 324 is available for use by students in this course outside of class time on a first come, first serve basis. Tutoring is also provided on a limited basis in the walk-in lab. A tutoring schedule will be posted on the department website by the end of the first week of classes. Students in this course may ask the tutors for assistance on assignments. The tutors are not allowed to solve the assignment for you, but they can assist with problems like cryptic compiler errors.

Labs:

Lab assignments are posted on the course website. Labs are usually worth 10 points and usually involving writing 1-2 short programs. The labs will be assigned every assigned lab schedule and will be due by midnight on Friday the same week. Partial credit will be given for incomplete labs. Late labs will be penalized 25% the first day late, and considered zero afterwards. The lowest lab grade will not be counted towards the overall lab grade.

Homework:

Homework assignments are posted on the course website. Homework assignments are usually worth 10 points and consist of multiple small programs. Each homework assignment will generally be assigned every Monday and will be due by midnight Monday the following week.

Programs which do not compile may be given partial credit depending on the severity of the error. Late homework will be accepted and will be marked down 25% the first day late. If there is a notice on the assignment that late homework will not be accepted beyond a certain date, then that is the final day homework will be accepted. Otherwise, assignments more than one day late will not be accepted. Special concessions may apply at my discretion.

Extra Credit Assignments:

You are encouraged to attempt any extra credit assignments that are usually given during the quarter. The more practice you get, the better you will be, and the extra points don't hurt either.

Labs/Homework Submission:

Assignments are submitted by emailing the instructor all assignment code files from the Computer Science department server. Do not use GMail, webmail or any other email method as the campus firewall and spam filter may silently reject the email. All assignments MUST be submitted to the instructor's Sleipnir account.

Midterms:

Midterm 1 will be given during week 4 or week 5

Midterm 2 will be given during week 7 or week 8

Makeup midterms will not be given without a compelling or valid reason. Failure to take a midterm without prior notification will result in an automatic score of zero.

Final:

Finals Week is March 16-18. Our final will be on **Thursday, March 17, 5:00pm – 7:30pm**. If you have a time conflict, you may arrange to take the final at a different time by emailing or speaking to me.

Grading:

| | | | | | | | | | | | | | |
|---------------|---|----|----|----|----|----|----|----|----|----|----|----|----|
| Minimum Score | 0 | 60 | 64 | 67 | 70 | 74 | 77 | 80 | 84 | 87 | 90 | 94 | 97 |
| Letter Grade | F | D- | D | D+ | C- | C | C+ | B- | B | B+ | A- | A | A+ |

| | |
|---------------------|-----|
| Labs/Homework | 35% |
| Midterm | 20% |
| Midterm | 20% |
| Final | 25% |
| Class Participation | 2% |

At the end of the quarter:

1. I will award—at my discretion—points for class participation. When your total percentage points have been tallied up for the quarter, you can earn:
 - a. 0 – For no class participation
 - b. 1 – Some participation
 - c. 2 – Active, constant participation

For example, if you have an 88% as your final score, and I know you have been actively participating in class discussion, I will award you 2 additional points to bring your grade score to 90% for the quarter.