Course Description

**CMPSC 111**
**Introduction to Computer Science I**
**Spring 2007**
**Bob Roos**


**Course Description**

**Office Hours:** My office is in Alden 105, extension 2883. My hours are Mon., Thurs. 3:30 – 4:30 p.m., Tues. 8:30 – 10:30 a.m., Weds. 2:30 – 4:30 p.m. and by appointment. The best way to schedule an appointment is to send me an e-mail.

**Text:** *Object-Oriented Programming in Java* by Kathryn E. Sanders and Andries van Dam (required)

**Lab:** Tuesdays, 2:30 – 4:20, in Alden 101.

**Final Exam:** Exam code A (Friday, 4 May, 9 a.m.)

**Grading:** (All percentages are approximate!)
- Attendance and participation (in-class exercises, labs): approx. 10%
- Lab assignments: approx. 55%
- Midterm exams (two): approx. 10% apiece
- Final exam or project: approx. 15%

In addition I reserve the right to give occasional surprise quizzes!

**Policies:**

**Attendance and Participation.** It is expected that students in this course will attend every class and formally scheduled laboratory session. Attendance will be taken periodically and a portion (10%) of the final grade will be determined by attendance and by participation during class in the exercises using the XInteract system in Alden 101.

Whenever possible, advise me of legitimately excusable absences (such as illness, death in the family, or certain college sponsored activities) prior to the class you will be missing. If you know in advance of specific conflicts due to athletic events or other reasons, please provide me with a list of dates and reasons as soon as possible so I can avoid problems in scheduling.

**Departmental Late Policy.** The following policy was adopted by the entire computer science department, effective beginning in fall of 2004:

All assignments will have a given due date. The assignment is to be turned in at the beginning of the class on that due date. Late assignments will be accepted for up to one week past the assigned due date with a 10% penalty. All late assignments must be submitted at the beginning of the class that is scheduled one week after the given due date.

**Collaboration and the Honor Code.** No collaboration on homeworks, quizzes, or exams is permitted unless specifically provided for as part of the assignment. The Department of Computer Science interprets the Honor Code Policy as follows:
It is recognized that an important part of the learning process in any course, and particularly in computer science, derives from thoughtful discussions with teachers, student assistants, and fellow students. Such dialogue is encouraged. However, it is necessary to distinguish carefully between the student who discusses the principles underlying a problem with others, and the student who produces assignments that are merely variations on someone else’s work. It will therefore be understood that all assignments submitted to faculty of the Department of Computer Science are to be the original work of the student submitting the assignment, and should be signed in accordance with the provisions of the Honor Code. Appropriate action will be taken when assignments give evidence that they were derived from the work of others. You are encouraged to periodically review the specifics of the Honor Code as stated in the College Catalogue and elsewhere.

Exam Scheduling. Tentative dates for the first and second exams are listed below under the heading “Important Dates.” It is your responsibility to check your schedule for your other courses as well as any special events you know of (class trips, etc.) and to notify me of any conflicts well in advance of the scheduled exam date. If many people are affected, I will try to change the date of the exam (but of course I can’t guarantee that everyone will be happy with the date).

Scheduling of the final exam is determined by the College. Please read the appropriate sections of the student handbook, *The Compass* (online at [http://www.allegheny.edu/campus/policies/handbook.php](http://www.allegheny.edu/campus/policies/handbook.php)). The section dealing with exams is on page 122. In particular, it says, “No student may be excused from a final examination or take the examination at a time other than the officially scheduled period.”

Goals

The most important concept in computer science is the *algorithm*, so one of the primary goals of CMPSC 111 is to introduce algorithms and to familiarize students with basic techniques of algorithm design and implementation. This means you will develop skills in many areas:

- problem-solving,
- logical thinking,
- organizing and planning,
- communication through written and spoken English and through the Java programming language.

By the end of the course you should be familiar with the most common forms of algorithmic control — decision structures, looping structures, and method calls. You will also become acquainted with basic data representations — ways of storing numeric, logical, and textual data and organizing data into classes (the “object-oriented programming” paradigm).

Another important goal of the course is to introduce students to the breadth of the computer science discipline. This will be achieved primarily through the programming assignments made in
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the labs. Topics may include, but are not limited to, computer graphics, robotics, Web applications, networking, etc.

Finally, the course emphasizes the scientific method, particularly as it applies to comparing and evaluating different approaches to designing algorithms and to debugging and testing computer software. In the laboratory you will experiment with different language features, design experiments to test your computer programs, and observe and draw conclusions from the results of these experiments.

Important Dates

Friday, 9 February: First Exam (subject to change)
Friday, 30 March: Second Exam (subject to change)
Friday, 4 May, 9 a.m. – noon: Final exam