Introduction to Object Oriented Programming
CS 23021
Spring 2001, MSB 228, TU 5:30-6:45pm

Instructor   **Dr. Mikhail Nesterenko**

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Course Prerequisites

cs10051 "Introduction to Computer Science" or cs10061 "Introduction to Computer Programming". You are expected to be familiar with basic ways of interacting with computer, editing files, using file transfer protocol (ftp), etc.

Course Overview

The goal of the course is to familiarize the students with programming in a high-level object-oriented language (C++) while studying the main constructs of C++. The students will learn to translate algorithms into correct programs as well as to debug, document and maintain the code.

The C++ constructs covered include: conditional and loop statements, functions, arrays, pointers, object classes, dynamic memory allocation. Time permitting we will also study standard template library and inheritance.

Textbook

? Walter Savitch, "Problem Solving with C++" 3nd edition, *Addison-Wesley*, ISBN: 0-201-70390-4

Class Web Page, Mailing List, Contacting the Instructor

The web page for the class is http://www.mcs.kent.edu/~mikhail/classes/ioop/ (I have a link to this page from my homepage). The web page will contain links to the following course materials:

• course syllabus;
• class schedule;
• lecture notes and programming examples used in class;
• programming project assignments;
• C++ tutorials, additional helpful links.

I have set up a mailing list for the students taking this course. I am going to send announcements and other class related information to this list. It is very important to be on this list to get the latest news and updates about the class. You will subscribe to this mailing list as a part of your fist project. You can subscribe to the list from the account of your choice (it does not have to be Kent-State's university or departmental account). You have to check your mail at least once a day while the school is in session.

The simplest way to contact me is via e-mail. **If you need to talk to me in person - see me during my office hours or make an appointment via e-mail.**

Lectures

Students are expected to attend each lecture. I will not take roll, yet attendance and active participation during a lecture will help you learn the material and succeed in class.

Class Participation

10 points are given for participation. You are expected to answer questions I ask in class. The questions usually deal with the material we covered in the previous class. If you do not attend the class I consider that you do not answer questions I ask you. Rather than participate in class you may select to do a harder last project (which will earn you the extra 10 points.) If you select this option you have to *inform me by e-mail within the first two weeks of classes*. Once you choose this option, you cannot go back to class participation option. Even though I provide this alternative, I encourage you to select class participation since I believe this is the best way to learn the material.

Quizzes

There will be approximately 7 quizzes held during the class. The date of the quiz is announced about a week in advance (there will be no surprise quizzes.) A quiz is held during the first 10 minutes of the class. Late students will not be given extra time to complete the quiz. A quiz usually contains 10 multiple-choice questions. Each question is worth 1 point. I will not count your worst score towards your final grade (missing quiz is equivalent to scoring 0.)

Exams

There will be one exam (held during class) and a final exam (held during finals week). All exams are closed book and closed notes, and must be individual work. It is expected that you take each exam at the scheduled time, unless you make *prior* arrangements with me, or have a *documented* illness (in which case I expect you to contact me as soon as possible). You will be tested on the material I covered in class. The textbook alone may not be sufficient for adequate preparation for the exams.

Programming Projects and Homeworks

There will be approximately 7 programming projects. The programming projects involve reading, modifying and writing C++ code. You will submit your projects electronically. The projects will also be graded electronically. The details on submission will be given to you together with the project assignment. You will be provided with an account on departmental undergraduate Unix server. You are, however, free to do your work on any other Unix machine you have access to.

I may assign additional pencil-and-paper homeworks. A homework will involve solving problems from the textbook.

Late Policies

• quizzes   no late quizzes accepted, no make-up quizzes;
• exams   no late exams, no make-up exams;
• homeworks no late homeworks;
• projects   late projects accepted. 10% of the grade is subtracted for each day the project is late. For penalty calculation Saturday and Sunday are counted as one day.

Late work will be accepted as stated above. I may waive the late policy conditions only in case of a *documented* illness or some extraordinary circumstance. In either case you have to contact me immediately. With respect to projects and homeworks my decision to grant you a waiver is partially influenced by the degree of completion of the work assigned. For example, if the project is assigned for 2 weeks, by 10th day I expect you to complete 65-70% of the work.

In general, you will have adequate time to complete each assignment. However, you should begin working on each assignment early so that you will have plenty of time for debugging which may take significantly longer than the initial code writing. Waiting to start coding until the night before the project is due is a bad idea.

Academic Integrity

Student-teacher relationships are built on trust. Students must trust that teachers have made appropriate decisions about the structure and content of the courses they teach, and teachers must trust that the assignments which students turn in are their own. Acts that violate this trust undermine the educational process. Academic dishonesty in any form will be penalized up to assigning grade F in the course.

Cooperation on Homework Assignments and Programming Projects

For both homework assignments and programming projects, I strongly believe that discussion with your peers is an excellent way to learn. If you don't understand something, discussing it with someone who does can be far more productive than beating your head against the wall.

Having advocated discussion, then, I must be clear what is allowed, and what is not. In general, students are allowed to cooperate as follows: you are allowed to discuss with other students the assignment, and general methods for solving the assignment. However, you are not allowed to work with someone else to actually *solve* the assignment, or to *write code* (even pseudocode) for a program, and you are certainly not allowed to *copy* anyone else's solution; doing any of these things will be considered cheating, and will constitute grounds for failing the course.

Note that there is a fine line between discussion and cheating. If you are unsure what is allowed and what isn't, feel free to discuss the distinction with me, but if something feels uncomfortable, it's probably not allowed.

Finally, you should be careful not to give others access to your code. This means that you shouldn't keep your program in a publicly accessible directory, you shouldn't leave your terminal unattended, and you shouldn't forget to pick up your printouts.

Grades

Your final course grade will be calculated as follows:

- quizzes (approximately 7)   10 points each, worst score dropped
- class participation   10 points
- programming projects (approximately 7)   20 points for the first
                                               50 points for each following project
- midterm exam   100 points
- final exam   100 points

The sum of the possible scores on all assignments is considered 100% and your final course grade will be determined as follows – A = 90–100%, B = 80–99.99%, etc. **There will be no curve at the end of the course,** although individual exams, homeworks, etc. may occasionally (although rarely) be curved. Note, that this means that **your score will not be rounded up: if you get 69.99% you will get a D not a C**. Thus you should always be able to determine how well you are doing in the course.

You will provide me with a pseudonym. Your grades will be posted on the course's webpage under your pseudonym.

Students with Disabilities

In accordance with University policy, if you have a documented disability and require accommodations to obtain equal access in this course, please contact me at the beginning of the semester or when given an assignment for which an accommodation is required. Students with disabilities must verify their eligibility through the Office of Student Disability. Services (SDS) in the Michael Schwartz Student Services Center (672-3391).