CIS 401/501 - Accelerated Programming
Section 501 - Fall Semester 2004

Time and place 6:00 - 7:15 pm, Tuesday and Thursday, FCW 23

Prerequisite Prior programming experience is presumed and permission of the appropriate Coordinator.

Credit Hours 3 (However, CIS 501 does not count as graduate credit.)

Instructor Keith Lynn

Office Faculty Court East 2

Contact Information Phone: 460-6390
E-mail: lynn@cis.usouthal.edu
URL: http://www.cis.usouthal.edu/~lynn

Office Hours Monday - Thursday 10 - 11 am and by appointment as needed.

Course Web Page A web page for this section will be maintained at

Additional Assistance ACM tutoring program (in CSCB) and lab assistants in lab.

Note: Help should be obtained quickly when needed.

Special Assistance Any student with a qualified handicap who wishes to use a tape
recorder or needs any accommodation should talk with the instructor
after class so that arrangements can be made.

If you have a specific disability that qualifies you for academic
accommodations, please notify the instructor/professor and provide
certification from Disability Services. (OSSS is located in Room 270
of the Student Center (460-7212)).

Textbook Java How to Program, 6th edition, by Deitel and Deitel

Related Material The Java 2 SDK and related software are bound with the textbook.
Newer versions of these software tools are available through download
There are also numerous books written and web resources about Java
which should be consulted as needed.

Course Description Introduction to the design of algorithms and their implementation in a high-level programming
language. Topics include: problem solving strategies, programming concepts, programming
environment, arrays, searching and sorting, internal representation of data, data concepts,
abstract data types, use of object libraries, testing strategies, and software engineering practices.
Objectives

The student will be able to:

- Explicitly describe the steps involved in problem solving and how each of those corresponds to a phase of the software life cycle.
- Use a text editor, compiler and interpreter to create and test programs.
- Describe and use the primitive data types supplied with a high-level programming language.
- Correctly use sequential execution, selection structures and loops to design and implement algorithms.
- Use the object-oriented paradigm for problem solving.
- Design and implement simple classes to represent newly designed objects.
- Explain the concept of efficient algorithms in terms of resource usage.
- Use an IDE (Integrated Development Environment) to develop Java programs with a GUI (Graphical User Interface).
- Abstractly design solutions to computer problems using objects and classes with inheritance and polymorphism.
- Use Swing and other classes that are part of the Java Software Development Kit (JSDK) in solving problems.
- Write Java programs that do file input and output.
- Write Java programs that use exception handling and multithreading.
- Use GUI Java components to create event-driven applications and applets.
- Use testing strategies to thoroughly test algorithms that are developed.

Grading

The course grade will be determined on the following basis:

Quizzes* 10%
Programs (Minimum of 5, Maximum of 10) 25%
Test 1 20%
Test 2 20%
Final Exam 25%

*There will be a short quiz given at the beginning of class each Thursday unless an exam is being given that night.

Grading Scale

90+ A
80 - 89.99 B
70 - 79.99 C
55 - 69.99 D
54.99 or less F

NOTE: Since all classes do not progress at the same rate, the instructor reserves the right to modify the above requirements or their timing as circumstances dictate. For example, the instructor may wish to change the number and frequency of exams, or the number and sequence of assignments. However, the students will be given adequate notification when and if such modification is deemed necessary.

Make-Up Policy

No make-up tests are given. Weights of other tests will be increased proportionately provided written medical or legal excuse for absence is provided in advance. Absence from the final exam will result in a failure for the course.
Important Dates

<table>
<thead>
<tr>
<th>Event</th>
<th>Date/Details</th>
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<tbody>
<tr>
<td>First day of class</td>
<td>Tuesday, August 24</td>
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<tr>
<td>Test 1</td>
<td>Thursday, September 23</td>
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<tr>
<td>Test 2</td>
<td>Thursday, November 4</td>
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<td>Thanksgiving Holidays</td>
<td>November 24 - November 28 (Wednesday - Sunday)</td>
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<tr>
<td>Advising for Spring</td>
<td>October 25 - November 5</td>
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<tr>
<td>Last day to drop</td>
<td>Tuesday, December 7</td>
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<tr>
<td>Last day of classes</td>
<td>Tuesday, December 7</td>
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<tr>
<td>Final Exam</td>
<td>6:00 - 8:00 pm, Thursday, December 9</td>
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Weekly Quizzes

You will be given a short quiz at the beginning of class on each Thursday unless an exam is being given on that day. On the week of the Thanksgiving holiday, the quiz will be on Tuesday night. These quizzes will consist of material covered up to and including the previous class meeting. No make-ups will be given on these quizzes because the quiz solution will be made available after the quiz is given. It is very important that these quizzes be taken seriously. They are intended to keep everyone up to date with the material, and some of the problems on the quizzes may be seen again on exams. There will be a total of 13 quizzes, and the lowest 3 grades will be dropped. The remaining 10 quiz grades will be averaged to account for 10% of your final grade. Please keep quiz grades in perspective.

Program Submissions

Full standards will be given with each assignment. Programs will be submitted electronically and are graded from 0 to 100 points. Each assignment is due no later than midnight on the date specified for its completion. Late programming assignments will be accepted for up to 1 week. Any assignment submitted between the date specified and 1 week from that date will be assessed a 15 point late penalty. No assignment will be accepted after 1 week from its due date. All programming assignments will be averaged to account for 25% of your final grade.

Computer Ownership Policy

Each student enrolled in this course must own a notebook computer according to the specifications listed at http://www.cis.usouthal.edu/~laptop. Each student is required to register their notebook with the School.

Cheating

The CIS Policy on cheating is:

Unless otherwise stated by your instructor, all work submitted for grading must be your own work. This means that the work you submit for grading must be designed and implemented by one and only one person, and that person must be you. Any deviation from this policy may result in a failing grade for the course for all parties involved. This policy applies to examinations, programming assignments, quizzes, and homework assignments.

Additionally, a record of the incident may be placed in the student’s file and further action may be taken at the university level.