COSC 1337 – Intro to Programming  
Lamar State College-Orange  
Spring 2010

Instructor: Keith Mott  
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E-mail: keith.mott@lsco.edu

Office Hours: Monday: 5:30 p.m. – 6:30 p.m.  
Call or email me to set up a time outside these hours.

Course Times: Independent Study – Meeting time Mondays, 5:30 – 6:30 pm

Course Description:

Catalog: This course is an introduction to computer programming.

General: This course provides an introduction to computer programming using the Java programming language. Topics include creating a Java application and applet, manipulating data using methods, decision making and repetition with reusable objects, arrays, loops, and layout managers using external classes, creating menus and button arrays using the abstract windows toolkit.

Credit Transfer: Students must check in advance with the particular college to which they plan to transfer credit.

Prerequisites: No programming prerequisites are required. The course requires basic keyboarding and college-level reading ability.


Supplementary Materials:

Course Objectives:
The course will be taught in a supportive atmosphere of independent study where the student is free to ask questions and explore programming using the Java language. At the end of the course, students should be able to demonstrate the ability effectively to use the following techniques:

- Fundamental programming techniques: data and expressions, branching and loops.
- Fundamental data structures: primitive types, arrays, and strings.
- Basic Object-Oriented-Programming (OOP) techniques: classes, objects, and method.
- Introduction to graphical user interfaces.

Scans Competencies:
The Secretary’s Commission on Achieving Necessary Skills (SCANS) has researched and identified the skills and competencies that employees will need for workplace success. The following SCANS skills are incorporated into the course content as listed below:

- **READING**–Locate, understand, and interpret written information in handouts and textbook.
- **WRITING**–Communicate thoughts, ideas, information, and messages in writing on written tests and in the required project summary.
- **ARITHMETIC/MATH**–Perform basic computations and approach practical problems by choosing appropriately from a variety of mathematical techniques when using
mathematical formulas in spreadsheets.

- **SPEAKING/LISTENING**—Receive, interpret, and respond to verbal messages during class lectures; organize ideas and communicate orally during class discussions.
- **THINKING SKILLS**—Think creatively, make decisions, solve problems, visualize, know how to learn and reason effectively in order to complete class assignments.
- **PERSONAL QUALITIES**—Display responsibility, self-esteem, sociability, self-management, integrity, and honesty.
- **BASIC USE OF COMPUTERS**—Acquire, organize, analyze, and communicate information; enter, modify, retrieve, store, and verify data and other information; ensure accurate conversion of information into the correctly chosen format for display.
- **WORKPLACE COMPETENCIES**—
  - **Manage resources**—Allocate time, money, material and facility resources, human resources
  - **Work with information**—Acquire and evaluate information, organize and maintain information, interpret and communicate information.
  - **Exhibit interpersonal skills**—Participate as a member of a team, teach others, serve clients/customers, exercise leadership, negotiate to arrive at a decision, and/or work with cultural diversity.
  - **Apply systems knowledge**—Understand systems, monitor and correct performance, and/or improve and design systems.
  - **Utilize technology**—Select technology, apply technology to task, and maintain and troubleshoot technology.

**Critical Thinking**
Critical thinking is a process involving higher order thinking skills. These skills include, but are not limited to, application, analysis, synthesis, and evaluation of factual information. Lamar State College – Orange Advances Critical Thinking Skills (LSC-O ACTS) through assignments of varying natures within the course that are designed to challenge and improve the student’s critical thinking processes.

*Example*
In this course, COSC 1336 – Java Programming, students will be given everyday problems (such as developing an algorithm for calculating gas mileage - number of miles per gallon – consumed) containing facts needed for the solution. Students will be challenged to creating algorithms and design a computer program to solve the everyday problems.

A well cultivated critical thinker:
- Raises vital questions and problems, formulating them clearly and precisely;
- Gathers and assesses relevant information, using abstract ideas to interpret it effectively;
- Comes to well-reasoned conclusions and solutions, testing them against relevant criteria and standards;
- Thinks open-mindedly within alternative systems of thought, recognizing and assessing, as need be, their assumptions, implications, and practical consequences; and
- Communicates effectively with others in figuring out solutions to complex problems.


**Attendance Policy:**
To receive full benefit of the course and to keep disruptions to a minimum, students are expected to meet weekly with the instructor. Absences will be recorded, although no points will be deducted for missed classes. Assignment information and instruction will be discussed at each class meeting. The content of this course is delivered by guided independent study.

**Makeup Policy:**
Students are responsible for materials covered in weekly meetings. Assignments are to be turned in in a timely manner as set forth in the weekly meetings.
Straight averages will be computed as earned.

Make-up tests are not permitted except due to extenuating circumstances and for valid reasons only. To take a make-up test, a written document from a physician, employer, police, jury announcement, coach etc. is required describing the situation and the date covered by the incident. All written excuses will be verified before make-up grades are recorded. Submitting false or unverifiable documentation for make-up tests results in a 0 for that test.

A call to me, prior to the test, alerting me to any situation that prevents you from testing is appropriate and expected.

Any test that is missed and approved for make-up must be made up within a week following the test. You are responsible for scheduling a suitable time for the make-up test with the instructor. Taking a make-up test means you are not eligible for extra credit questions, which may be on the original test. The make-up test may be different from the original test. Students receive a grade of “0” on all assignments not submitted or on tests not taken.

Withdrawals and Drops:
Never attending or ceasing to meet DOES NOT constitute a withdrawal or drop. You remain registered until you file a Drop/Withdrawal Form at the Registrar’s Office by the appropriate deadlines. Failure to act in a timely manner will result in an “F” grade for the course. It is the student’s responsibility to turn in all Drop/Withdrawal Forms with appropriate signatures and follow up to ensure that they were processed as desired.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>Feb 26, 2010</td>
<td>Last day to drop or withdraw without penalty (Grade of Quit or Withdrawal)</td>
</tr>
<tr>
<td>Apr 14, 2010</td>
<td>Last day to drop or withdraw (Grade of Q, W, or F possible)</td>
</tr>
</tbody>
</table>

Instructor-Initiated Drop:
Instructors may drop students from classes due to excessive absences, disruptive behavior, dishonesty, violating policy, etc.

Evaluation Method:
• Read and study assigned material from the text;
• Complete practice exercises and daily assignments and submit in a timely manner;
• Pursue independent study using resource materials available in our book, online student content area of our textbook, the library (books, periodicals, videos), and any other pertinent source;
• Demonstrate your mastery of the required skills on quizzes, lab/programming assignments, and exams.

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
<th>Grade Range</th>
<th>Grade</th>
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<tbody>
<tr>
<td>Homework</td>
<td>20%</td>
<td>90 - 100%</td>
<td>A</td>
</tr>
<tr>
<td>Programming Assign</td>
<td>30%</td>
<td>80 - 89</td>
<td>B</td>
</tr>
<tr>
<td>Exams (3)</td>
<td>30%</td>
<td>70 - 79</td>
<td>C</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20%</td>
<td>60 - 69</td>
<td>D</td>
</tr>
<tr>
<td>100%</td>
<td></td>
<td>59 or below</td>
<td>F</td>
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Policy on a Grade Incomplete:
The grade of “I” may be given (with instructor approval only) when any requirement of the course, including the final examination, is not completed. Arrangements to complete deficiencies in a course must be made with the instructor. Incomplete work must be finished during the next long semester; if not, the Admissions and Records Office must change an “I” grade to the grade of “F.” The course must then be repeated, if credit is desired. An “I” grade also automatically becomes an “F” if the student registers for the course before removing the deficiencies and receiving a grade change. The instructor may record the grade of “F” for a student who is absent from the final examination and/or is not passing the course.

Procedure for Review of Test Grades:
If a student has an issue about his/her grade, the instructor must be contacted not later than three (3) days after receiving the grade.

**Academic Assistance/Resources**
- If you experience difficulty in the course, schedule to meet with the instructor during office hours (see above). Do not wait until the last minute. Sometimes, meetings and other assignments may keep the instructor away during normal office hours.

**The Learning Center (TLC): 882-3373**
- Hours: M-Th: 7:30 am-8 pm; F: 7:30 am- 5:00 pm; Sat: 9 am-1:00; Sun closed
- Has disks/videos and tutorials on several software packages.
- Has lab assistants who can answer most of your questions.

**The Lamar-Orange Library (882-3352)**
- Hours: M-Th: 7:30 am-8:00 pm; F: 7:30 am-5:00 pm; Sat: 9 am – 1:00 pm; Sun: closed
- Has 28 computers with Windows 2000 and Office 2000 on them.
- and the Orange Public Library has periodicals, books, and tutorial videos available on some related topics.

**Academic Honesty:**

LSCO will not tolerate cheating or plagiarism. Plagiarism is defined as “taking and using as one’s own the writings or ideas of another.” A single cheating occurrence on any graded material will result in an “F” for the entire course and an “Academic Dishonesty” notation placed on their transcript.

Each student is expected to do his/her own work. Cheating or sharing files on individual homework assignments will result in grades of zero on the assignment for both parties involved.

Students subject to penalty due to academic dishonesty have the right to appeal to the department chair and eventually to the dean and/or academic vice president before imposition of the penalty. Flagrant or repeated violations of academic honesty may be referred to the Dean of Student Services for further action. Academic dishonesty includes, but is not limited to, the following: sharing or copying files, printing other student’s files, accessing reference materials during testing, copying answers from other students, plagiarism, etc.

**Classroom Policies/Etiquette:**
- ☀ On time – every time!
- ☀ Cell phones and pagers should be set on “vibrate” or turned off. If you take a call during class, you must take it outside the classroom. During tests however all phones must be turned off.
- ☀ Students may not bring drinks or food to classrooms equipped with computers.
- ☀ Students may not browse the Internet or play computer games during class time unless instructed to do so as part of the assignment.
- ☀ Students may not load, copy, or download files or programs to the lab computers unless instructed to do so as part of an assignment.
- ☀ Students may not alter or delete programs or files on the lab computers
- ☀ The Lamar State College-Orange Student Handbook, in Article 8 states: “unauthorized use of school computer account (s), computer data files, and/or computer facilities may subject the student to disciplinary actions which could include dismissal.”
- ☀ The LSCO Student Handbook specifies that no children under the age of 15 are allowed in the classroom or the hallways.

**Students with Disabilities:**

A request for special accommodations must be made through the ADA Counselor and the appropriate form submitted to the instructor two weeks in advance of need.

Any student with a verifiable learning or physical disability who requires special accommodations is encouraged to speak to the instructor in private regarding special accommodations needed.
**Syllabus Content:**
The instructor reserves the right to make changes to this syllabus, if deemed necessary. All changes will be provided to the students orally or in writing before the implementation of the change.

**TENTATIVE CLASS SCHEDULE**
Student needs, class progress and other circumstances may make it necessary to revise this schedule as the semester progresses. Please keep a copy of the syllabus for the duration of the semester.

<table>
<thead>
<tr>
<th>Week Of Monday</th>
<th>Monday</th>
</tr>
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<tbody>
<tr>
<td><strong>Jan 11</strong></td>
<td>Syllabus, Orientation</td>
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<tr>
<td></td>
<td><strong>Chapter 7 – Swing Interfaces with Sorting and Searching</strong></td>
</tr>
<tr>
<td><strong>Jan 18</strong></td>
<td><strong>Chapter 7 – Cont’d</strong></td>
</tr>
<tr>
<td><strong>Jan 25</strong></td>
<td><strong>Chapter 8 – Writing Data to a Sequential Data File</strong></td>
</tr>
<tr>
<td><strong>Feb 1</strong></td>
<td><strong>Chapter 8 – Cont’d</strong></td>
</tr>
<tr>
<td><strong>Feb 8</strong></td>
<td><strong>Chapter 8 – Cont’d</strong></td>
</tr>
<tr>
<td><strong>Feb 15</strong></td>
<td>Exam I</td>
</tr>
</tbody>
</table>
| **Feb 22**     | **Chapter 9 – Using Collections and Strings in a Reusable Class**  
**NOTE: Last Day to drop with no penalty** |
| **Mar 1**      | **Chapter 9 – Cont’d** |
| **Mar 8**      | Spring Break |
| **Mar 15**     | **Chapter 10 – Understanding Abstract Classes and Interfaces** |
| **Mar 22**     | **Chapter 10 – Cont’d** |
| **Mar 29**     | Exam II |
| **Apr 5**      | **Chapter 11 – Accessing Databases Using JDBC™** |
| **Apr 12**     | **Chapter 11 – Cont’d**  
**NOTE: Last Day to drop with potential penalty** |
| **Apr 19**     | **Chapter 12 – Utilizing Servlets for Web Applications** |
| **Apr 26**     | **Chapter 12 – Cont’d** |
| **May 3**      | Exam III |
| **May 10**     | Final Exam |

**EXAM TIME**

<table>
<thead>
<tr>
<th>Section (class time)</th>
<th>Tentative Final Exam Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>5:30</td>
</tr>
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</table>
After an introduction to programming concepts, the book presents both well-known and lesser-known computation models ("programming paradigms"). Each model has its own set of techniques and each is included on the basis of its usefulness in practice. The general models include declarative programming, declarative concurrency, message-passing concurrency, explicit state, object-oriented programming, shared-state concurrency, and relational programming. Specialized models include graphical user interface programming, distributed programming, and constraint programming. Teaching the science and the technology of programming as a unified discipline that shows the deep relationships between programming paradigms. Buying Options. Presentation on theme: "Java Programming, 2E Introductory Concepts and Techniques Chapter 1 An Introduction to Java and Program Design." Presentation transcript: 1 Java Programming, 2E Introductory Concepts and Techniques Chapter 1 An Introduction to Java and Program Design. Chapter 1: An Introduction to Java and Program Design 5 Java Designed and developed by Sun Microsystems in the early 1990’s One of the most widely used object-oriented programming languages. 6 Chapter 1: An Introduction to Java and Program Design 6 Characteristics of Java Portable Platform-independent write once, use everywhere Secure Protection against misuse of code Robust Strongly typed and incorruptible data. The fundamental concepts and techniques of selection statements, loops, methods, and arrays are the foundation for programming. Building this strong foundation prepares students to learn object-oriented programming and advanced Java programming. This book teaches programming in a problem-driven way that focuses on problem solving rather than syntax. This book is widely used in the introductory programming courses in the universities around the world. The book is a brief version of Introduction to Java Programming and Data Structures, Comprehensive Version, Eleventh Edition, Global Edition. This version is designed for an introductory programming course, commonly known as CS1.