CS 3230 Object Oriented UI Development With Java
Syllabus

General Information

Semester: Summer 2016
Textbook:
Location: SLCC BB 215
Instructor Info: Trevor Marsh
trevorumash@mail.weber.edu
Website: https://weber.instructure.com/courses/402311

Objectives of This Course

An introduction to the design and coding of applications using threads. Topics will include the use of threads in the design of operating systems, device drivers, utility programs and general applications. Language used in the course will be Java. Applications will include multimedia, Web Servers, search engines, security issues, and the use of the Java language in the development of applets for home pages.

After successfully completing this course, students will be able to:
1. Install and use an IDE for editing and debugging Java applications.
2. Perform basic tasks using generics and collections.
3. Write a basic user interface using Java.
4. Store and update source code in a versioning system such as Git.
5. Understand the uses for and applications of multithreading in programming.
6. Search, retrieve and apply information from Java Language documentation.
7. Diagnose errors with Java primitive wrappers and equality/hash methods.
8. Diagnose problems with the Java garbage collector.
9. Read and understand compile- and run-time errors and exceptions.
10. Discuss benefits and drawbacks to using applets.
11. Be aware of changes to Java language fundamentals introduced in Java 8 and upcoming in Java 9

Allotted Time

You should anticipate spending three to four hours of study per week for each credit hour of a university course. Computer and programming classes typically require time in the upper range.
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Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>May 10, 12</td>
<td>Syllabus, IDEs and SCMs</td>
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<tr>
<td>May 17, 19</td>
<td>Git, Java Intro &amp; Basic OOP (Vol I: 1-6)</td>
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<tr>
<td>May 24, 26</td>
<td>Collections &amp; Generics (Vol I: 12,13)</td>
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<tr>
<td>May 31, June 2</td>
<td>Event Handling and UI basics (Vol I: 7-9), Networking basics (Vol II: 3)</td>
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<td>June 7, 9</td>
<td>Streams &amp; files basics (Vol II: 1), UI layouts (Vol I: 9)</td>
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<tr>
<td>June 14, 16</td>
<td>Apps and Applets (Vol I: 10), Multithreading (Vol I: 14)</td>
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<tr>
<td>June 21, 23</td>
<td>Review and prep for midterm</td>
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<tr>
<td>June 28, 30</td>
<td>Midterm (test and project)</td>
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<td>July 5, 7</td>
<td>Discuss Final Project and requirements, Exception &amp; Error Handling (Vol I: 11)</td>
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<tr>
<td>July 12, 14</td>
<td>Advanced Swing and AWT features (Vol II: 6,7)</td>
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<tr>
<td>July 19, 21</td>
<td>Design patterns, work on Final Project</td>
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<tr>
<td>July 26, 28</td>
<td>Review specific requirements of Final Project</td>
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<tr>
<td>August 2, 4</td>
<td>Work on Final Project</td>
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<tr>
<td>August 9, 11</td>
<td>Final Project due August 9</td>
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Grading

Your final grade will be determined from your performance in the following areas:

- Lab Assignments: 25%
- Quizzes: 10%
- Class Participation: 5%
- Midterm/Project: 25%
- Final/Project: 35%

Class Format

A reading assignment and/or video will be posted for each learning module. Each student is expected to watch each video posted and review the assigned reading material prior to the class period. There will be time in class to ask questions about and work on the labs and projects, but the bulk of this work should be completed out of class. A complete/incomplete quiz will be administered at least once a week about the topics discussed. Questions about the lab, reading
material or video may be asked in class or in the Instructor’s Blog in Canvas. Students will be expected to participate in class discussions to aid the instructor in evaluating class progress.

Assignments

Lab assignments will be given during the semester. The lab assignments are typically short and are to be completed in assigned groups. Assignments should be turned in as instructed in the assignment description. In some cases, you will simply demo the app for the instructor. In others, you will submit the URL to the source of your project.

You will turn in your lab assignments by marking the assignment complete in Canvas. Do not upload any files to Canvas unless instructed to do so in the assignment. For labs requiring a demo, I will ask you to demonstrate your lab on your computer. I will grade it according to the rubric listed in the lab assignment.

Lab assignments are due on the date listed in Canvas. If dates in Canvas do not match the dates in the syllabus, Canvas will be considered the authority. The dates, assignments and deliverables in this syllabus are guidelines only and are subject to change at the sole discretion of the instructor to meet the needs of the class.

Quizzes

The purpose of each quiz is to assess your understanding of the current discussion and reading material. The evaluation of the quizzes will be pass/fail - if the quiz is taken, credit will be given (provided the answers are serious and not “joke” answers).

Quizzes are also used as an attendance tool and as means of immediate feedback on the learning experience. Quizzes can therefore only be made up after prior arrangement with the instructor, and the instructor retains sole authority to approve or deny requests.

Quizzes may consist of multiple choice, true/false and short answer questions, and on occasion will be a short in-class assignment or activity. Quizzes are closed book, closed Internet, closed note and closed neighbor - the purpose of the quiz is for evaluation of the individual student’s retention of the concepts presented.

Midterm

A midterm will be administered near the middle of the semester. This will consist of a minimal question set - closed book - and a timed, in-class programming project. The project will require compliance with best practices as presented in class. As such, the book and any notes may be used. The best review for the midterm project will be the lab assignments.
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Final Project

There will be a Final Project in place of a final exam and ample time will be given in order to complete the project. Individual portions of the project will be discussed separately, encouraging a modular approach to the project. Details on the Final project will be available around week 7.

Students with Disabilities

Students who have special needs or disabilities that may affect their ability to access information and/or material presented in this course are encouraged to access http://www.weber.edu/ssd/ssdPP00_registering.html to register with the WSU SSD.

Honesty

CS Department policy dictates that any verifiable evidence of student academic cheating, as defined and determined by the instructor, will result in: 1) an automatic failing grade for the class and 2) a report to the Dean of Students that will include the student's name and a description of the student's dishonest conduct. Cheating is defined in the Weber State University Policies and Procedures Manual located at http://www.weber.edu/ppm/Policies/6-22_StudentCode.html.

Anyone determined to have copied another student's assignment, quiz or exam will receive a failing grade for the semester. Please do your own work. You may study together, but quizzes and tests (including final and midterm projects) are to be completed individually and not as a group. Please do not distribute or post solutions to lab assignments or the content of any quiz or test on the Internet.

Grading Scale

The grading scale for the final grade is as follows:

- 100-94% = A
- 93.9-90% = A-
- 92.9-87% = B+
- 86.9-84% = B
- 83.9-80% = B-
- 79.9-77% = C+
- 76.9-74% = C
- 69.9-67% = D+
- 66.9-64% = D
- 63.9-60% = D-
- below 60% = E

Campus Closures and Class Cancellations

If class is canceled due to weather or illness of the instructor, an email will be sent to your Weber State email address, a note will be placed on the door of the room and an announcement will be published on Canvas. Class will only be canceled for weather if SLCC closes the Redwood Road campus. If the SLCC campus is closed for an extended period, classwork will continue through the use of WSU email, Canvas, recorded videos and virtual meeting tools.
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Course Fees

Course fees for the Computer Science major are designed to cover the costs of lab equipment maintenance and replacement including desktop and server computer systems and software; consumable materials and supplies; and support for lab aides, student tutors, and online instructional resources.

Miscellaneous

The instructor reserves the right to amend the course schedule, or study material, or to add or subtract lab assignments, quizzes or examinations to best meet the needs of the class.

Extra credit will be offered on an as-needed basis, and will be at the discretion of the instructor. The opportunities for extra credit will be in areas the student has struggled in, to give students the option to demonstrate an improved understanding of the topic.

Lab assignments may be turned in up to 1 week late for half credit, unless otherwise noted.

A grade of Incomplete will be given only in extreme circumstances.