**CSC 295 Select Topics in Computer Science: Software Development (3 Units)**

**Computer Science Department**

**California State University Dominguez Hills**

**Fall 2016**

**Instructor:** Liudong Zuo (Ph.D.)

**Email:** LZUO@csudh.edu

**Lecture Time & Room:** TuTh 4:00 PM - 5:15 PM in NSM B208

**Office Hours:** MoWe 10:20 AM - 12:00 PM, or by appointment

**Office Location:** NSM E109

**Prerequisites:** CSC 123

**Course Materials** (Free)

Introduction to Programming using Java

http://math.hws.edu/javanotes/

**Course References** (Not mandatory)

Java Programming: From the Ground Up (1st Edition)
Authors: Ralph Bravaco and Shai Simonson
Publisher: McGraw-H

**Course Description**

This is an advanced Java programming course. Through extensive programming exercises and projects, students are expected to have a much deeper understanding about major aspects of object-oriented programming, and significantly enhance their programming and problem solving ability. Real programmer interview question will be shown to students. Eclipse and Netbeans will be used as the Java IDEs. Several data structures and algorithms will be introduced. Please refer to the course schedule for the coverage.

**Course Objectives**

- Solidify students' understanding about major aspects of object-oriented programming
- Enhance students' programming and problem solving ability significantly
- Improve students' collaboration ability through team projects
- Build a solid foundation for further study in computer science/technology.

**Course Outcomes**

Upon completion of the course the students will be able to:

- Have a much deeper understanding about Java and object-oriented programming principles.
- Know several other topics of Java, such as Multithread Programming and Socket Programming.
- Create complicated Java programs using object-oriented programming principles to solve actual programs.
- Do research on their own to solve relatively difficult problems they meet in the class.
- Build a solid programming foundation for future computer courses.

**Final Exam:** 4:00 PM - 6:00 PM, Tue., Dec. 13 (subject to change)

**Grading:** Attendance: 5%, Project: 45%, Homework: 50% (subject to change)
Grading Scale (subject to change)

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<thead>
<tr>
<th>Score Range</th>
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<tbody>
<tr>
<td>96-100</td>
<td>A</td>
<td>90-95</td>
<td>A-</td>
<td>87-89</td>
<td>B+</td>
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<td>83-86</td>
<td>B</td>
<td>80-82</td>
<td>B-</td>
<td>77-79</td>
<td>C+</td>
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<td>73-76</td>
<td>C</td>
<td>70-72</td>
<td>C-</td>
<td>67-69</td>
<td>D+</td>
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<td>60-66</td>
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<td>Below 60</td>
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Computer Information Literacy Expectations

It is expected that students will:

- Have regular access to a computer and internet access for the term of this course.
- Be familiar with using email as a communication tool and check your official campus email account at least every other day.
- Be able to access websites and online course materials.
- Use the library databases to find articles, journals, books, databases and other materials.
- Do some research on their own to solve problems in the class.

Other Policies (subject to change)

- You are strongly encouraged to attend all lecture classes, read and study the lecture materials, and contribute to class discussions.
- For the homework and projects, the later you submit yours after the deadline, the less possible points you will get. If you submit your homework within the 0-12/24-24-36/36-48 hours after the deadline, the points you will get is 90%/80%/70%/60% * your total points out of the full points. The hard deadline is the earlier time between 48 hours after the deadline and the homework/project solution post time. After that time, no points will be given.
- Students are allowed to discuss the homework and projects with the other students. However, each student must finish the homework and projects on his/her own. Homework and projects will be given in class periodically throughout the semester and announced in class.
- Plagiarism and cheating consequences: warning for the first time, zero points for corresponding homework/project for the second time, and “F” final grade for the third time and will be reported to the department and university.
- There might be bonus points in the homework/project or for attendance. One attendance, slowest score of your homework will be dropped when calculating the final overall grade.
- Classes meet on the scheduled dates and room. Attendance will be checked randomly. All electronic devices must be turned off or turned to silent mode when inside the classroom. Surfing the internet, food or drinks are not allowed in the computer lab.

Academic Integrity

Academic integrity is of central importance in this and every other course at CSUDH. You are obliged to consult the appropriate sections of the University Catalog and obey all rules and regulations imposed by the University relevant to its lawful missions, processes, and functions. All work turned in by a student for a grade must be the students’ own work. Plagiarism and cheating (e.g. stealing or copying the work of others and turning it in as your own) will not be tolerated, and will be dealt with according to University policy. The consequences for being caught plagiarizing or cheating range from a minimum of a zero grade for the work you plagiarized or cheated on, to being dropped from the course.

Americans with Disabilities Act

CSUDH adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with temporary and permanent disabilities. If you have a disability that may adversely affect your work in this class, I encourage you to register with Disabled Student Services (DSS) and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: no accommodation can be made until you register with the DSS. For information
call (310) 243-3660 or to use the Telecommunications Device for the Deaf, call (310) 243-2028 or go to: http://www4.csudh.edu/dss/

**Behavioral Standards**

Behavior that persistently or grossly interferes with classroom activities is considered disruptive behavior and may be subject to disciplinary action. Such behavior inhibits other students' ability to learn and an instructor's ability to teach. The instructor may require a student responsible for disruptive behavior to leave class pending discussion and resolution of the problem and may also report a disruptive student to the Student Affairs Office (WH A-410, 310-243-3784) for disciplinary action.

**Course Outline and Schedule** (subject to change)

<table>
<thead>
<tr>
<th>Week</th>
<th>Chapter</th>
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<tbody>
<tr>
<td>1</td>
<td>CSC 121 review</td>
</tr>
<tr>
<td>2 - 3</td>
<td>UML Tutorial, Objects and Classes</td>
</tr>
<tr>
<td>4 - 5</td>
<td>Inheritance and Polymorphism</td>
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<tr>
<td>6</td>
<td>Wrappers and Exceptions</td>
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<tr>
<td>7</td>
<td>Data Structures and Generics</td>
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<td>8 - 9</td>
<td>Java Collections Framework</td>
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<tr>
<td>10 - 11</td>
<td>Graphics AWT and Swing</td>
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<tr>
<td>12 - 13</td>
<td>Event-Driven Programming</td>
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<tr>
<td>14</td>
<td>Secure/Socket Programming</td>
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<tr>
<td>15</td>
<td>Concurrency Programming</td>
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