CS 221
Computer Science II

Spring 2017
3 semester credits

Section 3:
Tuesday, & Thursday, 10:30 - 11:45 a.m.
City Center Plaza (CCP), Room 259

Section 4:
Monday, & Wednesday, 4:30 - 5:45 p.m.
CCP, Room 240

Catalog Description
Object-oriented design including inheritance, polymorphism, and dynamic binding. Graphical user interfaces. Recursion. Introduction to program correctness and testing/analysis of time/space requirements. Basic data structures: lists, collections, stacks, and queues. Basic searching and sorting.

Prerequisites:
CS 121 / CS 121L

Instructor: Matthew Thomas
Office: CCP 357
Email: mhthomas@boisestate.edu
Office Hours:
Tuesday & Thursday, 1:00 to 2:00 p.m.
Wednesday & Friday, 11:00 a.m. to 12:00 p.m.
and by arrangement.

Class Web Page
http://cs.boisestate.edu/~mhthomas/cs221

Text (Optional)
Object-Oriented Data Structures Using Java, 3rd edition by Nell Dale, Daniel T. Joyce, and Chip Weems.

Teaching Assistants
Teaching assistants for this course will be available in the computer science labs at scheduled times. Information about the TA schedule can be found posted in the lab and on the class website.

Learning Objectives
At the end of this course, the student is expected to be able to

- understand object-oriented design, including inheritance and polymorphism
- determine basic space/run-time requirements of algorithms and code fragments
- evaluate trade-offs in algorithm selection for a variety of problems
- understand abstractions used for lists, stacks, queues, and collections
- analyze and decompose complex problems in terms of algorithmic and data structure design, and use an integrated development environment effectively.

***Piazza* Discussion Forum**
The *Piazza* discussion forum will be used for posting questions and answers about assignments and course material, and for disseminating information. Participation is highly encouraged. A link to the *Piazza* website is located on the class website.

Attendance
Students are expected to attend all classes. Missing classes without explanation may result in a grade penalty.

Grading
Homework and Programming Assignments – 50%
Quizzes – 25%
Final Exam – 25%

Quizzes
Quiz dates are fixed and shown below. Unless alternate arrangements are made in advance, only officially excused absences will be accepted for missing an exam. All quizzes will be closed-notes/closed-book, but one third of the points assigned to each quiz grade will be completed within a group.

- Quiz 0:
  - Section 3: Thursday, January 19
  - Section 4: Wednesday, January 18
- Quiz 1:
  - Section 3: Thursday, February 2
  - Section 4: Wednesday, February 1
- Quiz 2:
  - Section 3: Thursday, February 16
  - Section 4: Wednesday, February 15
- Quiz 3:
  - Section 3: Thursday, March 2
  - Section 4: Wednesday, March 1
- Quiz 4:
  - Section 3: Thursday, March 16
  - Section 4: Wednesday, March 15
- Quiz 5:
  - Section 3: Thursday, April 6
  - Section 4: Wednesday, April 5
- Quiz 6:
  - Section 3: Thursday, April 20
  - Section 4: Wednesday, April 19

Final Exam
The final exam, which also closed-notes/closed-book but will be completed individually, is scheduled for:

- Section 3: Thursday, May 4, 10:00 a.m. to 12:00 p.m.
- Section 4: Wednesday, May 3, 3:00 to 5:00 p.m.

Programming and Homework Assignments
There will be several types of assignments throughout the semester. Written communication skills are assessed in documentation for programming assignments.

Assignments require the implementation of working programs using the language constructs and techniques introduced in class.

- Programs must compile and run on the ***onyx*** lab server. Any programming assignment that does not compile and run on ***onyx*** as required by the assignment will receive zero points.
- Programs must be written individually. Students who copy programs or sections of programs from each other or from any other source will be considered to be cheating as will students who allow their programs to be copied.
- Projects must be submitted by midnight the day they are due. Late projects are subject to a deduction of 10% per day from the maximum possible score (e.g. a perfect program submitted after midnight is only worth 90 points). Projects will not be accepted more than 4 days late.
- Homework programs and other assignments will also be submitted electronically. Late homework submissions will not be accepted.

Academic Honesty
Any violation of the Academic Honesty policy is grounds for immediate failure of the course and will be reported. The University Academic dishonesty policy can be found at http://osrr.boisestate.edu/scp-codeofconduct-article2/#18. To reiterate, the term "academic dishonesty" may include cheating, plagiarism, or other forms of academic dishonesty. All assignments submitted by a student must represent her/his own ideas, concepts, and current understanding or must cite the original source. Attempts to violate the academic integrity of an assignment do not have to be successful to be considered academic dishonesty. Academic dishonesty may include, but is not limited to:

1. Stealing and/or Possessing Unauthorized Material – The unauthorized appropriation, possession or use of the property of another; the forgery or misuse of documents;
2. Fabrication and Falsification – The unauthorized alteration or invention of any information or citation;
3. Multiple Submission – The submission of substantial portions of the same assignment for credit more than once without the prior permission of all involved faculty members;
4. Abuse of Academic Material – Destroying, stealing, or making inaccessible library or other academic resource material;
5. Complicity in Academic Dishonesty – Intentionally or knowingly helping or attempting to help another commit an act of academic dishonesty.