CS305: Object-oriented Design and Programming

2014 Fall

Luby Liao

1. Recommended books

- *Python Cookbook 3rd Ed (2013)* by Dave Beasley & Brian Jones (Safari Book Online from USD library)
- *Python 3 Object Oriented Programming* by Dusty Phillips (Safari Book Online from USD library)
- *Learning Python Design Patterns (2013)* by Gennadiy Zlobin (Safari Book Online from USD library)
- *Python Programming Patterns (2001)* by Thomas Christopher ($2 from Amazon)
- *Design Patterns in Python*, by Rahul Verma and Chetan Giridhar (Free book online)
- *Learning IPython for Interactive Computing and Data Visualization* by Cyrille Rossant (Safari Book Online from USD library)
- *Design Patterns: Elements of Reusable Object-Oriented Software* by the Gang of Four
- David Flanagan's books on Java, JavaScript and Ruby (Safari Book Online from USD library)
- *The Definitive Guide to Jython: Python for the Java Platform* by Josh Juneau et al (Safari Book Online from USD library)
- *Dive into Python 3*, free download
- *Practical Ruby Projects: Ideas for the Eclectic Programmer*, by Topher Cyll, free download
- and more ...

2. Learning Outcome

Upon successful completion of this course, students will be able to:

- Decide when to use object oriented programming and when not to
- Choose among statically typed language such as Java, or dynamically typed languages such as Python or Ruby
- Design and implement software systems using classes or prototypes while making appropriate use of inheritance, dynamic binding, unit testing, and design patterns
- Achieve code reuse and avoid code duplication

3. Grading System

Your grade consists of 4 components:

1. **15%** Quizzes, and Short homework problems due in a day or 2
2. **35%** More substantial homework assignments
3. **20%** Midterm exam
4. **30%** Comprehensive Final

4. Final

- Wed, Dec 17, 5 to 7

5. Office, Web Site and other information

Office   S146

Office Hours
        9 to 11 MWF, and by appointments

Phone   619-260-4021(o)

Class Web Site
        `http://www.sandiego.edu/~liao`, which is redirected to
        `http://cs.sandiego.edu/~liao`

e-mail   `liao@sandiego.edu` or `lubyliao@gmail.com`