CSUCI Spring 2017
Syllabus for **COMP350 – 01 INTRODUCTION TO SOFTWARE ENGINEERING**
Course Credits: 3
Prerequisites: COMP 232 and COMP 262
Class Meetings: Mo 12:00PM – 1:50PM and We 12:00PM – 2:50PM (Sierra 1222)
Instructor: Richard Wasniowski Email: richard.wasniowski@csuci.edu
Office hours: TBD and by appointment.

Course Description: (from the catalog) Concepts and techniques for systems engineering, requirements analysis, design, implementation and testing of large scale computer systems. Principles of software engineering for production of reliable, maintainable and portable software products. Emphasis on functional analysis and structured design techniques. Topics include unit, integration and systems testing, configuration management, and software quality assurance practices. Participation in group activities involving analysis, design and implementation of a software intensive system. Introduction to Computer Aided Software Engineering (CASE).

Learning Outcomes:
After completing Software Engineering course students will demonstrate:
1. an ability to identify, formulate, and solve software engineering problems, including the specification, design, implementation, and testing of software systems that meet specification, performance, maintenance and quality requirements.
2. an understanding of the core areas of software engineering. (theory of computation, operating systems, compilers, programming languages, computer architecture).
3. the ability to elicit, analyze and specify software requirements through a productive relationship with various stakeholders of the project.
4. an ability to function effectively on teams.
5. an understanding of professional, ethical and social responsibility.
6. an ability to evaluate the impact of potential solutions to software engineering problems in a global society, using their knowledge of contemporary issues and emerging software engineering trends, models, tools, and techniques.
7. an ability to convey technical material through written reports which satisfy accepted standards for writing style.
8. an ability to convey technical material through oral presentation and interaction with an audience.

Textbooks:
The course teaches both traditional software engineering project management and agile processes, using the following recommended textbooks:
- Software Engineering by Sommerville, Addison Wesley.
- Software Engineering by Eric Braude and Michael Bernstein, ISBN: 978-0-471692089
- Engineering Software as a Service: An Agile Approach Using Cloud Computing, by ArmandoFox and David Patterson, Strawberry Canyon Publisher, 2013.
- Object-Oriented Design & Patterns by Cay Horstmann,
- The Pragmatic Programmer by Dave Thomas,

More information and a list of additional recommended books will be provided at a later time.

Course Format:

This is a practical hands-on course. Class lectures and discussions will be followed with in class assignment, lab assignments and softwareengineering projects. Students will be solving assigned software engineering problems in teams. Class examples and demonstrations will be done in Java/JavaScript and Python. The midterm and the final exam will cover material discusses in class meetings. The format of the exams and tests will be short answer questions along with software engineering design problems. Students will be required to present completed Software Engineering Projects during the semester.

Tools, Language and Architecture:

The students will use Computer Science Mac computers and Virtual Box. Java/JavaScript and Python will be used extensively in this course (using additional programming tools is possible). All tools that are required for this class are available on our Lab computers. The tools in this class are either open source or licensed for student use so students may install them on a home computer or laptop.

Requirements: To pass this course, Student must meet the following requirements.

- *Homework assignments:* Formal homework assignments will be given. Homework must be submitted electronically.
- *Reading assignments:* Formal reading assignments will be given. Reading assignments must be presented and discussed in class.
- *In-class Assignments:* pair programming exercises will be scheduled during the semester. In-class Assignments must be submitted electronically at the end of lecture, and code must be clearly documented.
- *Labs:* pair programming exercises will be scheduled during the semester. Labs must be submitted electronically, and code must be clearly documented.
- *Projects:* Software engineering mini projects (classic and agile) will be scheduled during the semester. Projects must be submitted electronically.
- *Tests:* There will be tests, and final exam. Final exams will be closed-book and will cover information presented in lectures.

Submissions: The students must use the CI Learn (Blackboard) to submit their work. (Some assignments will require submitting via Blackboard and providing link to the Git repository.)
All Labs and Projects should be submitted as one ZIP file; no other formats will be accepted. The names of all submitted files must include the surnames of both students (Brown and Green in the example) followed by the lab number as follows: BrownGreenLab5.zip. Submissions that do not adhere to this naming convention will be rejected.
Students should be prepared to defend their work as the instructor may initiate a discussion of the solution after the submission.

Grading: Each assignment has a due date. The students will have to complete all assignments in class or at home and submit the results electronically through the Blackboard. Late submissions are not allowed.

The final grade is a sum of all submissions weighted as follows:

• Homework assignments	50 points
• Reading assignments	150 points
• In-class Assignments	250 points
• Labs	400 points
• Projects (100+100)	200 points
• Tests	100 points
• Final	50 points

Final grades will be assigned as follows:
97 -100% - A +
94 - 97% - A
90 - 94% - A-
87 - 90% - B+
84 - 87% - B
80 - 84% - B-
77 - 80% - C+
74 - 77% - C
70 - 74% - C-
67 - 70% - D+
64 - 67% - D
60 - 64% - D-
below 60% - F

Academic Honesty: All work that students submit must be their own work. In accordance with the CSU Channel Islands policy on academic dishonesty, students in this course who submit the work of others as their own, cheat on tests and examinations, help other students cheat or plagiarize, or commit other acts of academic dishonesty will receive appropriate academic penalties, up to and including failing the course. Students are encouraged to consult with the instructor on when and how to document sources if they have questions about what might constitute an act of plagiarism or cheating.

Disability Statement: Students with disabilities needing accommodation should make requests to Disability Services. All requests for accommodation require appropriate advance notice to avoid delay in services. Please discuss approved accommodations with the instructor.