

College of San Mateo
Official Course Outline

1. **COURSE ID:** CIS 200 **TITLE:** Capstone Project - CIS
Units: 2.0 units **Hours/Semester:** 16.0-18.0 Lecture hours; 48.0-54.0 Lab hours; and 32.0-36.0 Homework hours
Method of Grading: Grade Option (Letter Grade or Pass/No Pass)
Prerequisite: CIS 114, and CIS 121 and CIS 127 and CIS 128 and CIS 380 AND one of the following database courses: CIS 132 or CIS 133 or CIS 363 or CIS 364
Recommended Preparation:
 Eligibility for ENGL 838 or ENGL 848 or ESL 400.

2. **COURSE DESIGNATION:**
Degree Credit
Transfer credit: CSU

3. **COURSE DESCRIPTIONS:**
Catalog Description:
 Students plan realistic career goals while initiating, developing, and completing substantial team projects in consultation with and under the direction of the instructor. Students will employ Agile development methodologies to develop a project with client- and server-side technologies, a database, HTML5 and mobile technologies.

4. **STUDENT LEARNING OUTCOME(S) (SLO'S):**
 Upon successful completion of this course, a student will meet the following outcomes:
 1. Work as a team member to develop a substantial Web-based program.
 2. Employ client-side, server-side and database technologies to develop a robust application.
 3. Use Agile software development methodologies for rapid prototyping and development.
 4. Employ HTML5, CSS, Web 2.0 and mobile technologies to create a responsive Web-based application.
 5. Produce a resume and prepare for job interviews.

5. **SPECIFIC INSTRUCTIONAL OBJECTIVES:**
 Upon successful completion of this course, a student will be able to:
 1. Work as a team member to develop a substantial Web-based program.
 2. Employ client-side, server-side and database technologies to develop a robust application.
 3. Use Agile software development methodologies for rapid prototyping and development.
 4. Employ HTML5, CSS, Web 2.0 and mobile technologies to create a responsive Web-based application.
 5. Produce a resume and prepare for job interviews.

6. **COURSE CONTENT:**
Lecture Content:
 1. Introduction to teamwork and project management.
 2. Introduction to Agile software development methodologies.
 3. Development of a project proposal.
 4. Setting realistic goals.
 5. Identify the strengths of team members and form teams according to skill sets and interests.
 6. Researching web hosting services.
 7. Documentation.
 8. Testing and debugging on multiple devices.
 9. Launching the site.
 10. Creating a resume.
 11. Job interview preparation.
Lab Content:
 1. Development of a project proposal.
 2. Development of a substantial Web-based project using client-side, server-side and database technologies.
 3. Incorporation of HTML5, CSS, Web 2.0 and mobile development technologies.
 4. Testing, debugging and versioning.

7. REPRESENTATIVE METHODS OF INSTRUCTION:

Typical methods of instruction may include:

- A. Lecture
- B. Lab
- C. Activity
- D. Critique
- E. Directed Study
- F. Discussion
- G. Observation and Demonstration

8. REPRESENTATIVE ASSIGNMENTS

Representative assignments in this course may include, but are not limited to the following:

Writing Assignments:

- A. Students will write a project proposal.
- B. Students will create documentation for their project.
- C. Students will code a complex Web-based application.

Reading Assignments:

Students will read assigned material, including handouts and online material.

9. REPRESENTATIVE METHODS OF EVALUATION

Representative methods of evaluation may include:

- A. Class Participation
- B. Group Projects
- C. Homework
- D. Lab Activities
- E. Oral Presentation
- F. Projects
- G. Quizzes

10. REPRESENTATIVE TEXT(S):

Possible textbooks include:

- A. Ruby & Copeland. *Agile Web Development with Rails 5.1*, 1st ed. Pragmatic Bookshelf, 2017
- B. Santacrose. *Git Essentials*, 2nd ed. Packt Publishing, 2017
- C. Myers. *Essential Test-Driven Development*, 1st ed. Addison-Wesley Professional, 2018

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Course Originator: Melissa Green