

Course	CSI 2999: Sophomore Project Oakland University
Credits	2 credits
Semester	Winter 2018 (W 1:00 – 2:47pm), O’Dowd Hall 202B
Instructor	Hua Ming, <a href="mailto:ming@oakland.edu">ming@oakland.edu</a> Office Hours: by appointment Office : EC 516
Teaching Assistant	Andrew Walwema, <a href="mailto:avwalwem@oakland.edu">avwalwem@oakland.edu</a> Office Hours: by appointment Office: EC 501

**Required Books**     None

OU Important Dates     [http://oakland.edu/important\\_dates](http://oakland.edu/important_dates)  
**Final Day: April 23, 2018 ( 3:30pm ~ 6:30pm )**

**General Description:**

A team-oriented project work consisting of a small project to build skills in requirement assessment, group problem solving, and written and oral technical presentations.

**Prerequisite(s):** CIT 230 or CSE 230

**Course objectives:**

This course is designed to serve the following objectives:

- Demonstrate ability to elicit and formulate requirements and scope of software projects. (CS: [b,g], IT: [b,g,k])
- Effectively use software engineering tools to develop and manage software projects. (CS: [a, c, h, i, j, k], IT: [a, c, h, i, j, k, l, m, n])
- Demonstrate ability to effectively work in a team environment. (CS: [d], IT: [d])
- Illustrate and apply concepts of ethics. (CS: [e], IT: [e])
- Demonstrate competency in oral and written communications. (CS: [f], IT:[f])

**Course Delivery to Meet Objectives:**

- All students in this course will **select a team** to join **at the first class session**, and select a team leader. Each team will choose a software application development project that can be accomplished within the time shown in the class schedule document posted on Moodle. We will have teams of 5 people each.
- Each team will be responsible to develop a detailed *project proposal* that the team will present to other teams in the class for feedback.

- Team members are expected to participate fully with their team members in the development and presentations of their project to the class, project reports, and design, development, testing, integration and documentation of their code. Team members are expected to give honest feedback on their peer reviews of other team members.
- The goal of this class is to prepare students to work in a similar team setting found in the industry. **This is NOT a class to teach programming**. It is assumed that students have enough technical training to create their projects. It will be the **students' responsibility** to use outside resources and their peers to research and answer the programming questions, and presentation materials.

### **Team Project Proposal Presentation:**

Each team will be responsible to develop and present an **initial project proposal** to the class for feedback. The class will provide constructive feedback to the proposals as well as a *Yes/No* vote to the presented proposal. The teams must receive more *Yes* than *No* votes to proceed. The instructor will provide advice on the modification of the project proposal, if necessary.

Based on the result of this presentation, teams will submit a **project report**, which will be updated twice: one at midterm presentation, and finalized after the final presentation.

Students may choose to use any high level programming language and platforms (laptops, mobile, web) to develop the software application. It is required that the whole team knows how to program in it and a version can be run on any PC at the end of the semester with available free software. (The team should provide instructions on how to run their software on a PC.)

Separate documents will be posted on Moodle for requirements for your *presentation* and *report*.

### **Two Mid-term Project Presentations**

The presentations will occur about halfway through the project development schedule. The purpose is: 1) to confirm development progress to date 2) to discuss any issues that arise to threaten the project's on time completion without sacrificing project requirements.

After each presentation, the original project proposal will be incrementally updated with changes and re-submitted.

Separate documents will be posted on Moodle for requirements for the Mid-term *presentation* and *updated project proposal*, which at this stage should be called *project report*.

### **Final Project Presentation & Report**

This **final presentation** will occur at the final exam time set by the university. Teams will give their final presentation on their project to all students. Due to the big size of this class, a detailed **final project demonstration** will be shown to the instructor shortly before the final presentation.

A **final project report** will be turned in, which should include updates (to schedule and deliverables) among other things such as lessons learned, summary of what percent each team member contributed to the code, etc. Again detailed requirements will be posted on Moodle for the final project presentations and reports.

## Final Project Demo

Towards the end of the semester, the instructor and TA will meet with teams to get a full-blown project demo. All team members are required to participate in it. Questions will be asked regarding project implementation details. The concrete demo date will be posted in moodle in a timely manner.

## Peer Reviews

All members of a project team will submit confidential Peer Reviews submitted to Moodle, which takes the form of a homework submission to Moodle. Completion of Peer Reviews is mandatory. Failure to do so will cause deduction of points under individual class participation, and late submissions will **NOT** be accepted. The peer review instructions will be posted on Moodle in a timely manner.

**NOTE:** a student will NOT pass this class if she/he receives negative peer reviews from the majority of her/his team.

## Class Attendance

Due to the project nature of this class, your attendance is required unless stated explicitly in Moodle or by the instructor in class. After the teams are formed, the team leader will record the attendance of her/his team members and leave it to the instructor at the end of the class meeting.

## Grading:

Your overall score is calculated based on:

Team Initial Project Proposal Presentation	5%
Initial Team Project Report	5%
Team Mid-term Project Presentation	10%
Mid-term Update to Team Project Report	10%
Team Final Project Presentation	10%
Final Team Project Report	10%
Individual Peer Review From Others	20%
Individual Class Participation	10%
Individual Project Participation	20%

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- Individual peer review grade will come from the average peer review grades from the respective team
- Individual class participation grade comes from attendance and on time submission of their peer reviews.
- Individual project participation will be determined by participation during presentations, and final documentation of how much of the project coding and documentation each individual worked on. (This report will be created and turned in by each team.)

Without exception, your final letter grade is calculated by:

overall score 90 or above	4.0
85 <= overall score < 90	3.6 - 3.9
80 <= overall score < 85	3.3 - 3.6
75 <= overall score < 80	3.0 - 3.3
65 <= overall score < 75	2.6 - 3.0

60 <= overall score < 65	2.3 - 2.6
55 <= overall score < 60	2.0 - 2.3
50 <= overall score < 55	1.6 - 2.0
45 <= overall score < 50	1.3 - 1.6
40 <= overall score < 45	1.0 - 1.3
35 <= overall score < 40	0.6 - 1.0
30 <= overall score < 35	0.3 - 0.6
25 <= overall score < 30	0.1 - 0.3
overall score below 25	0.0

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**Class Schedule:**

<b>Date</b>	<b>Class Topic</b>	<b>Deliverable Due</b>
1/3/2018	Review class, form teams	Select teams and team leaders
1/10/2018	Introduction to Scrum; give initial presentation assignments to each team. Solidify teams project ideas.	
1/17/2018	Each team conducts initial project presentation and turn in initial project report.	Initial presentation ppt and project proposal due <b>Tuesday</b> 1/16/2018 at 11:55pm
1/24/2018	No class. (Teams work on projects)	Peer Review due <b>Friday</b> 1/26/2018 at 11:55pm
1/31/2018	The instructor will meet with each team leader in his office during class time and assign 1 <sup>st</sup> Midterm presentation schedule on Feb 14, 2018	
2/7/2018	No class. (Teams work on projects)	
2/14/2018	Team project 1 <sup>st</sup> midterm presentation day and project report due.	The 1 <sup>st</sup> midterm presentation ppt and project report file due <b>Tuesday</b> 2/13/2018 at 11:55pm
2/21/2018	No class. (Winter Recess)	
2/28/2018	No Class. (Teams work on project)	
3/7/2018	Instructor will host short meetings with each team leader individually on the project progress update and inform the schedule for the 2 <sup>nd</sup> midterm presentation (3/14/ 2018)	
3/14/2018	2 <sup>nd</sup> midterm presentation day and project report update due.	2 <sup>nd</sup> midterm project update report <b>due</b> 3/14/2018 @ 11:55pm
3/21/2018	No Class (Teams work on projects)	
3/28/2018	No Class	

	(Teams work on projects)	
4/4/2018	No Class (Team work on projects)	<b>Project features ready to be frozen</b>
4/11/2018	Final Project Demo to the instructor during this week, not necessarily 4/11/2018	Final project report <b>due</b> 4/17/2018 @ 10:00pm
4/23/2018 (3:30pm~6:30pm)	Final Presentation	

### Success Tips for This Course:

1. Closely collaborate with your team members in discussing, implementing, documenting, and managing the project. Extensive individual work offline (beyond the class meeting hours) is a must. This is an opportunity for you to sharpen your technical skills and better prepare you for more advanced study and future employment.
2. Proactively learn techniques necessary for solving problems, project management and software management. Meanwhile, pay close attention to each student's individual presentation. This is an opportunity for you to learn **new** technologies in computer science, and obtain hands-on experience.
3. Be a good, proactive teammate and complete your assigned tasks **ON TIME**. This is an opportunity for you to practice your communication & interpersonal skills. You will need these skills to be successful in the software engineering industry.

### Class policies:

1. Academic conduct policy: All members of the academic community at Oakland University are expected to practice and uphold standards of academic integrity and honesty. Academic integrity means representing oneself and one's work honestly. Misrepresentation is cheating since it means students are claiming credit for ideas or work not actually theirs and are hereby seeking a grade that is not actually earned. Following are some examples of academic dishonesty:
  - a. Cheating on examinations. This includes using materials such as books and/or notes when not authorized by the instructor, copying from someone else's paper, helping someone else copy work, substituting another's work as one's own, theft of exam copies, or other forms of misconduct on exams.
  - b. Plagiarizing the work of others. Plagiarism is using someone else's work or ideas without giving that person credit; by doing this students are, in effect, claiming credit for someone else's thinking. Whether students have read or heard the information used, they must document the source of information. When dealing with written sources, a clear distinction should be made between quotations (which digests the source of information and produce it in the student's own words). Both direct quotations and paraphrases must be documented. Even if students rephrase, condense or select from another person's work, the ideas are still the other person's, and failure to give credit constitutes misrepresentation of the student's actual work and plagiarism of another's ideas. Buying a paper or using information from the World Wide Web or internet without attribution and handing it in as one's own work is plagiarism.
  - c. Cheating on lab reports by falsifying data or submitting data not based on the student's own work.

- d. Falsifying records or providing misinformation regarding one's credentials.
  - e. Unauthorized collaboration on computer assignments and unauthorized access to and use of computer programs, including modifying computer files created by others and representing that work as one's own.
2. Add/drops:  
The university policy will be explicitly followed. It is student's responsibility to be aware of deadline dates for dropping courses.
  3. Special Considerations:  
Students with disability who may require special considerations should make an appointment with campus Disability Support Services, 106 North Foundation Hall, phone 248-370-3266. **Students should also bring their needs to the attention of the instructor as soon as possible.** For academic help, such as study and reading skills, contact the Academic Skills/Tutoring Center, 103 North Foundation Hall, phone 248-370-4215.
  4. Athlete Excused Absences  
Students shall inform their instructors of dates they will miss class due to an excused absence prior to the date of that anticipated absence. For activities such as athletic competitions whose schedules are known prior to the start of a term, **students must provide their instructors during the first two weeks of each term a written schedule showing days they expect to miss classes.** For their university excused absences students must provide each instructor at the earliest possible time the dates that they will miss. For the make up work:
    - It is the responsibility of the student to request from the instructor an opportunity to complete missed assignments, activities, labs, examinations or other course requirements in a timely manner.
    - Students are responsible for all material covered in classes that they miss, even when their absence are excused, as defined above.
    - Missed classroom activities will be rescheduled at the discretion of the instructor.

## **Appendix**

### **ABET IT & CS Outcomes:**

- a) An ability to apply knowledge of computing and mathematics appropriate to the discipline;
- b) An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution;
- c) An ability to design, implement and evaluate a computer-based system, process, component, or program to meet desired needs;
- d) An ability to function effectively on teams to accomplish a common goal;
- e) An understanding of professional, ethical, legal, security, and social issues and responsibilities;
- f) An ability to communicate effectively with a range of audiences;
- g) An ability to analyze the local and global impact of computing on individuals, organizations and society;
- h) h) Recognition of the need for, and an ability to engage in, continuing professional development;
- i) An ability to use current techniques, skills, and tools necessary for computing practice;

### **IT Program Outcomes**

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- j) An ability to use and apply current technical concepts and practices in the core information technologies of human computer interaction, information management, programming, networking, and web systems and technologies.
- k) An ability to identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems.
- l) An ability to effectively integrate IT-based solutions into the user environment.
- m) An understanding of best practices and standards and their application.
- n) An ability to assist in the creation of an effective project plan.

**CS Program Outcomes**

- j) An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices;
- k) An ability to apply design and development principles in the construction of software systems of varying complexity.