

# Syllabus

## CSCI 334: System Design and Implementation

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### Spring 2016

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**Office Hours:** MWF 10:15-11:15; R 10:00-11:00

### Course Description

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The course is the capstone experience for the computer science major. It is an opportunity for students to demonstrate mastery of skills learned throughout the curriculum while participating on a team project for a real-world client.

### Course Goals

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

- Design large software projects using patterns and other standard techniques.
- Communicate both orally and in writing with clients, colleagues, and supervisors.
- Document specifications and code using standard tools.
- Work in a team to design and develop software projects.
- Identify appropriate resources to learn new technologies.

### Required Texts

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There is no required text for this course. Instead, online reads will be posted via Canvas. You should expect to spend at least an hour before each class session working through the readings. This means reading the text for detail and working to learn vocabulary — not just skimming through the material before class.

### Graded Material

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- **Blog Entries** - Each week you will produce a blog post on LinkedIn based on an article or video on a technical subject.
- **Software Engineering Philosophy Readings** - You will read portions of other books that discuss a wide variety of approaches to software development. For each book you will write a two-to-three page response to a prompt for the book.
- **Technology Tutorial** - You will select a technology and provide a hands-on tutorial for the class. This technology must be new to the majority of the students in the class.
- **Project Performance** - Our client this semester is Merck, a pharmaceutical company with a strong IT division. The project will require us to identify and document the requirements, propose a solution and present on it, and then plan and implement a solution. You will not be involved in every aspect of the project, but you are expected to contribute in a timely manner when given assignments. As evidence of your involvement, you will maintain a work log throughout the semester. Your grade will be based on your level of contribution to the project, as assessed by me and the other students in the class.
- **Presentations** - Throughout the semester we will have guests visit the class. These will include developers from Merck who know the premise of your project, managers from other teams who are aware of the project but not the details, and individuals from outside Merck who know nothing of the project. For each visitor the class will give a 10 to 15 minute presentation where the goal is for you to target the presentation appropriately for each guest.
- **Final Analysis Paper** - Instead of a final exam, you will write a final paper due to me at the time of the final exam. In this paper, you will critique the project and discuss how the content of the course was utilized in the project.

## Grade Determination

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- LinkedIn Blog Posts - 10%
- Software Engineering Philosophy Readings - 20%
- Technology Tutorial - 15%
- Project Performance - 25%
- Presentations - 15%
- Final Analysis Paper - 15%

All Grades will be computed on the standard scale using plusses and minuses

## Course Policies

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- **Late Policy** - I understand that life sometimes gets in the way of getting work done. Consequently, late assignments will be accepted without penalty in the class after the assignment was due. However, this policy should not be used as a crutch, and if you frequently use it I will deduct from your grade. After the next class session, late work will not be accepted unless there are exceptional circumstances.
- **Extensions** - In a similar vein, I am generous with extensions on work if you approach me *before* the day the assignment is due.
- **Absences** - Your attendance is expected at each class meeting, but I understand that students occasionally get sick, have obligations outside Moravian, and even over sleep. If you do miss class, please send me an email explaining your absence - preferably before the class session. Regardless of your reason for missing class, you are responsible for the contents of reading assignments, handouts, class activities, and class email.
- **Academic Honesty** - Blog entries, philosophy readings, and the technology tutorial are expected to be original work. You may consult with other sources (other students, webpages, online tutorials, etc.), but you must acknowledge these sources. Further, you may not directly copy any source. Violation of this policy will result in a failing grade for the assignment.
- **Disabilities** - Students who wish to request accommodations in this class for a disability should contact the Assistant Director of Academic and Disability Support in the Academic Support Center, Monocacy Hall, lower level, or by calling 610-861-1401. Accommodations cannot be provided until authorization is received from the Academic Support Center.

The details of this syllabus are subject to change based on our progress through the material and the intensity of our collaboration with Merck.