California Polytechnic State University - San Luis Obispo Orfalea College of Business BUS 395 - Systems Design and Implementation Spring 2014

Professor: Dr. Patricia A. McQuaid

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Office Hours: Tuesday, Thursday 10:30-12:00,

and by appointment

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(If you send a message, clearly indicate "Section 1" or "Section 2" in the heading.

Exam Dates		
Midterm Exam	Thursday, May 1	
Final exam	Section 1 (12-2 class)	Tuesday, June 10 1-4
	Section 2 (2-4 class)	Tuesday, June 10 4-7

Course Materials – Required.

"Foundations of Software Testing, ISTQB Certification", by Rex Black, Eric van Veenendaal, Dorothy Graham. ISBN 978-1408044056, 3rd edition

"The Deadline: A Novel about Project Management", Tom DeMarco, July 1997, Dorset House Publishing, ISBN 0932633390.

COURSE OBJECTIVES.

This course deals with systems design and implementation and consists of the primarily of these four inter-related focus areas: software testing, project management, software quality, and software assurance. A significant theme will be on incorporating software testing into the software development process. An important part of designing and implementing systems is communicating effectively, therefore you will be expected to demonstrate competence in giving oral presentations and written reports.

In terms of **Systems Implementation and Software Quality**, the focus will be for the student to understand:

- How to design quality into systems
- How to test throughout the systems development life cycle (SDLC)'}

In terms of **Project Management**, the focus will be for the student to:

- Understand the genesis of project management and its importance to improving the success of information technology projects;
- Demonstrate knowledge of project management terms and techniques such as
 - The triple constraint of project management
 - The project management knowledge areas and process groups
- Tools and techniques of project management such as work breakdown structures; network diagrams, and critical path analysis.
- Use Microsoft Project software to help plan and manage a small project, of your choosing.

COURSE MANAGEMENT LOCATION.

We will use PolyLearn. Periodically, I will send out email messages through PolyLearn, which will go to your Cal Poly email account. You are responsible for checking your messages, so if you do not use your Cal Poly account as your primary email system, be sure you forward your Cal Poly email to whatever account you actually use (such as gmail).

GRADING.

Exam 1	30%	Presentation and paper-1 (team)	8%
Exam 2	30%	Presentation and paper-2 (team)	8%
"The Deadline" announced quizzes	6%	Course participation	
Homework	9%	(participation, in-class work, current events)	9%

EXAMS. There will be two exams that are designed to test your grasp of important concepts introduced prior to the exam, as well as your ability to synthesize and apply these concepts to business situations. Exams will focus on the text and lecture material, plus concepts related to homework and projects. The exam format will be a combination of multiple-choice, true-false, problems to solve, short-answer, and essay questions. "The Deadline" material will not be part of the exam. The exams are closed notes and books. Make-up exams will only be issued in the case of an extreme, verifiable (documented) emergency, approved BEFORE the exam is given. Any make-up exams will be more difficult than the original exam. Exams must be taken on the assigned day at the assigned time.

"THE DEADLINE" book. To help keep you keep current and enhance class discussions, we will have announced quizzes on the material that is to have been read for that day. The dates are posted on the "Significant Deadlines" document. They will be answered on the exam paper. The quizzes are open-NOTES, not open-book. You may not share notes during the quiz, so come prepared. We will then discuss the material from the appropriate pages of the text. Bring a printed copy of your notes to the exam (not electronically).

Paper and Presentation.

There will be two papers and presentations, where you will work in teams. There will be a paper due and a presentation. Details to follow.

- 1. Software disasters or software success stories.
- 2. Current topic in quality, testing, or project management.

ATTENDANCE.

Because this course moves quickly, and because your active participation in discussions and the learning process is valued, attendance is imperative. You will learn more and enjoy the class more if you attend regularly and keep up with all readings and assignments. Members of this class are expected to attend class, show up on time, and have assignments prepared by the due dates given. Excused absences are permitted, but it is your responsibility to provide appropriate documentation. Only legitimate, documented excuses (e.g. medical emergency) will be accepted for missing exams or assignments. Other than that, there is no way to makeup missed in-class coursework. Being in class is the point. I will be taking attendance.

Expectations about classroom behavior: I do notice when you are a courteous, hard-working and productive class contributor. A conscientious student does the following:

- 1) Arrives on time and doesn't leave early, unless there are exceptional circumstances.
- 2) Turns off the cell phone before class.
- 3. Refrains from using the computers for purposes other than those expected during class time.
- 3) Refrains from having private conversations while I am presenting or someone is presenting.
- 4) Keeps up with assigned reading and contributes to class discussions and group collaboration sessions in a meaningful way.

Note that missing class to attend an interview is NOT an approved university excuse. (But, I do hope you get a good job, however!) So, if you are not in class and there is an assignment given during class, you will not receive any credit for the assignment. There are no make-up assignments for in-class exercises. Likewise, I will do my best to foster a climate of mutual respect and learning by being available for questions, providing easily accessible written assignments with clear criteria, and returning assignments in a timely manner. I am available during office hours for questions or comments and am open to hearing your thoughts and feedback. Bring your questions, observations, outside readings and contributions to class. Active involvement in class will help you in the learning process. Negative classroom behavior will affect your grade.

ATTENDANCE AND PARTICIPATION.

I encourage the sharing of ideas with the class, during class discussions. You are, of course, responsible for all material presented in class, even if you are absent. If you miss a lecture, you should get notes from someone else in the class, and you should designate someone to pick up any handouts for you. I plan to have most documents available to you through PolyLearn, but they may not all be there. I urge you to exchange email addresses and phone numbers with other people in the class, so you can determine what you missed and get their notes. If you plan to attend class, I expect you to be on time and remain for the entire lecture. If you need to leave early, let me know in advance. I am working hard in teaching this class and expect you to work hard.

ASSIGNMENTS.

Assignments are due at the beginning of class on the due date. Note: no late assignments will be accepted. The only exception will be if you have an approved university written excuse (such as a note from a doctor due to illness). Assignments will be accepted early, however, so if you know that you will be not be in class on the day that the assignment is due, you may submit it in advance. Some assignments will be submitted trough PolyLearn, others handed in at the beginning of class. There will be no extra credit work offered.

HONESTY.

Plagiarism and cheating are serious offenses and may be punished by failure on an exam or assignment, failure in the course, and or expulsion from the college. For more information refer to the "Academic Honesty" policy in the student catalog. Be sure to cite your sources for any work you turn in. For information obtained from the Internet, be sure to provide the exact links.

WHAT I EXPECT FROM STUDENTS.

Attend every class on time, unless there is an emergency. Read the assigned text material *before* attending lectures. Read all material and think about the issues raised. Come to see me during office hours if you have trouble with the material, and do *not* wait until the day before an exam. If you want to discuss your grade from an assignment, you have <u>one week</u> from the date the graded material is returned to you; after that, I will NOT make any changes.

WHAT STUDENTS CAN EXPECT FROM ME.

I will explain the course objectives carefully. I will do my best to explain the material clearly and precisely, and will be available for students during office hours. I strongly *discourage* students sending me email to clarify concepts or methods; this is the purpose of class time, office hours or appointments, so plan accordingly. I do not plan to be "on-call" on the weekends and throughout the week. I will encourage participation and try to make the class dynamic. I will construct fair exams. I will grade examinations and other assignments fairly and promptly. I will encourage you to ask questions openly and without fear of embarrassment. I will provide an opportunity for you to make suggestions for improvements to the class.

The following is a pretty standard definition of letter grades and their significance:

- A: Outstanding (student's performance is genuinely excellent)
- B: Good (student's performance is clearly commendable but not necessarily outstanding)
- C: Average (student's performance meets every course requirement and is acceptable or good, though not distinguished)
- D: Below Average (student's performance fails to meet course objectives and standards)
- F: Failure (student's performance is unacceptable)

"The Deadline" by Tom DeMarco

We will read the entire book. (It really is a novel.) We will formally begin reading it at end of the 2nd week of class. It is best to read it once you understand the basics of project management – you will get more out of it. DeMarco has the main character write in a journal at the end of the chapter. I suggest you key these notes into a Word file to help you recall the key points.

My Background:

Patricia A. McQuaid, Ph.D. is a Professor of Information Systems in the Orfalea College of Business. My doctorate is in Computer Science and Engineering, as well as my Masters degree. I also have an MBA, and an undergraduate degree in Accounting. I am a Certified Information Systems Auditor (CISA), through the Information Systems Audit and Control Association (ISACA). I am a Certified Tester - Foundation Level (CTFL), through the International Software Testing Qualifications Board (ISTQB). I am the Co-Founder and immediate Past-President of the American Software Testing Qualifications Board (ASTQB). On the international level, I am a member of both the Marketing and Audit committees of the ISTQB.

I am a member of IEEE, and a Senior Member of the American Society for Quality (ASQ). I am an Associate Editor for the *Software Quality Professional* journal, and also participate on ASQ's Software Division Council. I am a frequent speaker and author, both internationally and nationally. I am a contributing author to both Volumes I and II of the *Fundamental Concepts for the Software Quality Engineer* (ASQ Quality Press) books. I have been the Program Chair for the Americas for the World Congress for Software Quality (WCSQ) since 1996, with the Sixth World Congress for Software Quality (6WCSQ), to be held in London, June 2014.