

SYLLABUS
SENG 510: Software Project Management
Spring 2020

Instructor: Lawrence Jacowitz, PhD
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Course venue

Location: WVU eCampus: <https://ecampus.wvu.edu>
Office Hours: via telecon by request

Prerequisites: none

Course structure

The format is an online, asynchronous course. Optional synchronous discussion sessions will be available weekly on Thursdays from **7:00 to 8:00** PM EST (after entering Collaborate, go to *Lawrence Jacowitz' Virtual Office*). These sessions provide a forum for students to discuss the week's assignment with Dr. J and other students.

Course Purpose: This is an introductory course for managing information technology and software development projects. It is not restricted to project managers; this course encompasses the art and science of using teamwork to meet project goals. The project team includes the project manager, lead developers, software engineers, supporting functions, business experts and other stakeholders. Therefore, this course is directed to students across a wide range of backgrounds and interests. The student will learn how to conceptualize, initiate, plan and execute a successful project. Students will participate in a competitive team effort to propose a major design project.

Expected Course Learning Outcomes: Students will be able to:

1. interpret the processes and knowledge areas in the Project Management Institute's Project Management Body of Knowledge
2. analyze organizational and knowledge management principles
3. choose best-practices techniques for successfully managing a project throughout its life-cycle
4. evaluate the interpersonal dynamics of projects, including participation in team assignments
5. demonstrate proficiency in project management practices by preparing a realistic project plan

Textbooks

- **Required:** *Information Technology Project Management 5th edition* by Jack Marchewka from John Wiley & Sons (2015). ISBN 978-1-118-91101-3. This is a current textbook which is cross-disciplinary and addresses real issues and practices. It presents a flexible methodology for how to initiate, conceptualize, plan, implement and close real projects.

This is an integrated approach which incorporates the ten areas of the Project Management Institute's Guide to the Project Management Body of Knowledge.

- **Optional:** *The Mythical Man-Month* is available as a free download in pdf or other formats at

https://archive.org/stream/mythicalmanmonth00fred/mythicalmanmonth00fred_djvu.txt

The student will benefit from the philosophy and practical experiences of the project manager for development of IBM's product line of the System 360.

- **Required:** *The Design of Design: Essays from a Computer Scientist* by Frederick Brooks, Jr., Pearson Education (2010). ISBN 978-0-201-36298-5. This is a readable gem about the essence and practice of software design from the author of *The Mythical Man-Month*. The student will learn how to blend theory and hands-on experience in the design process. The student will learn the necessity, difficulty and methods of achieving conceptual integrity when software is built by team. Thinking about the intrinsic nature of design problems and reflecting on their fundamental concepts will help the student to appreciate the design of design.
- Additional online sources or their URLs will be posted as needed.

Grading Policy

There will be **5 problem sets (@7% each= 35%), 5 quizzes (@3% each=15%)** and a **major team design problem (20%)**. Problem sets will be either individual assignments or team assignments related to an ongoing case study.

Teams will be formed by Dr. J. All team members will receive the same grade on an assignment with the following exception: any student who does not comply with his/her role in the Team Charter will receive a lowered grade. The Team Charter is the team's mutually agreed-to individual assignments to complete the team project.

There will be a **midterm (10%)** and a **final exam (10%)**.

Discussion Board contributions will be graded. There is a **10% maximum for Discussion Board**, which includes student-instructor and student-student discussions. Substantive comments on another student's posting contributes to the point count. To kick-start this process, students will post a personal biographical sketch. The components of evaluation are:

- *Level of Participation:* did the student ask pertinent questions or make useful contributions?
- *Progress:* did the student advance the development of the discussion topic?
- *Tone of the Discussion:* did the student help others in thinking through the issue?
- *Use of Course Content:* did the student connect the discussion with the main topics being analyzed?
- *Focus:* did the student stay on topic?

Students are expected to practice good Netiquette: see *Start Here > Academic Policy and Student Support Services*

Late deliveries will be penalized at 20% per week unless prior arrangements are made.

Total % = 100
“A” = 90 – 100%
“B” = 80 – 89%
“C” = 70 – 79%
“D” = 60 – 69%
“F” = below 60%

Every attempt will be made to grade projects, assignments, and essays within seven days of the due date. Feedback will include written critique of each assignment. Students absent from regularly scheduled examinations because of authorized University activities will have the opportunity to take them at an alternate time.

Academic integrity

Students who practice academic dishonesty, such as cheating or plagiarism, will be penalized. Severe penalties will follow from the discovery of any representation of another individual's work (in any form) as your own (i.e., copying any portion of written assignments or exams). Check the *MLA Handbook for Writers of Research Papers Seventh Edition* (ISBN: 9781603290241) for proper citation of others' work to avoid plagiarism in written assignments. Penalties range from a grade of “zero” on the assignment in question to an “unforgivable F” in the course.

Technology Needed

Students must have technology compatible with the standard requirements of the current platform with eCampus access, <https://ecampus.wvu.edu/>, and Windows Media Player. Student assignments are primarily required to be turned in using Microsoft Office or equivalent, therefore reasonable proficiency in this product is required. Refer to the eCampus home page for supported versions of browser and Java.

Materials Needed

Students must have a current University email account and WVU ID with password.

Course Topics

- Understanding the project context and the Project Management Body of Knowledge and its matrix of 5 processes and 10 knowledge areas
- Essence of creative development
- Justifying and initializing a project
- Conceptual integrity and essays in design
- Human side of project organization and management
- Managing project scope and creep
- Developing a Work Breakdown Structure for estimating and managing activities
- Scheduling, budgeting and using *Microsoft Project* as a management tool
- Managing project risk and the quest for a silver bullet

- Communications, tracking and reporting, including metrics and earned value
- Quality and maturity model concepts
- Managing organizational conflict
- Procurement and solicitation processes
- Design models
- Design perspectives
- Competitive team design project

Communications & media

Course communications on eCampus shall include: (1) the *Course Message* feature and (2) the *Discussions* course tool. The *Message* feature will be used for email correspondence. The *Discussions* tool will provide interactive access among students and with the instructor. This tool can be used for collaborative assignments. All course material and assignments will be provided using the eCampus features. Media will include YouTube.

Online orientation: Please refer to the *New Student Orientation Manual for Online Courses*: http://elearn.wvu.edu/students/images/NewStudentOrientationManual_101910.pdf.

Attendance Policy: N/A.

Social Justice Statement:

West Virginia University community is committed to creating and fostering a positive learning and working environment based upon open communication, mutual respect, and inclusion. If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangement with Disability Services (293-6700). For more information on West Virginia University's Diversity, Equity, and Inclusion initiatives, please see <http://diversity.wvu.edu>.