SE 477 Software and Systems Project Management

Instructor

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Course Information

SE 477 Section 920
Class times: N/A
Room: N/A
Campus: N/A
Course homepage: https://d2l.depaul.edu/
Last day to drop with no financial penalty: Apr 13; after Apr 13, a grade of "W" will be assigned.

Course Summary

This course presents project management from a development practice (as opposed to a business practice) perspective. The course covers the essential elements of software project management: people, process, tools and techniques, and measurements. These elements are discussed from three interrelated and complementary viewpoints:

- The general project framework provided by the Project Management Book of Knowledge (PMBOK);
- The four phases of a typical IT project: initiating, planning, executing, and closing; and
- The project life cycle: predictive (plan-driven), iterative and incremental, and adaptive (change-driven), with the course's emphasis on the latter two.

The course consists of:

- Lectures delivered via video screencast;
- Individual and team coursework assignments; and,
- Three online quizzes.

Students perform representative project management activities on a team-selected project throughout all team assignments.

Learning Objectives (LO)

1. Students will demonstrate understanding of the motivation for, basic principles of, and terminology of project management in individual and team assignments and quizzes. (LO1)
2. Students will apply and demonstrate their understanding of the relationship of development and project management concerns and how they may be reconciled in a series of team assignments. (LO2)
3. Students will demonstrate their ability to execute the activities and responsibilities of a project management team in a software development project in a series of team assignments,. (LO3)
4. Students will demonstrate understanding of the reasons for IT project failures and how they might be averted in a series of team assignments and quizzes. (LO4)
5. Students will demonstrate their ability to apply principles of effective interpersonal skills in a series of team assignments. (LO5)
6. Students will demonstrate their ability to implement an essential subset of the activities associated with project planning, execution, monitoring and control, and close-out in a series of team assignments. (LO6)

Required Texts

- Project Management Institute (2013). *Software Extension to A Guide to the Project Management Body of Knowledge (PMBOK Guide) Fifth Edition*. Project Management Institute, Inc. ISBN-10:1628250135; ISBN-13: 978-1628250138. (Referred to as PMBOK-SWE below.)
- (FREE ONLINE) Deemer, P., Benefield, G., Larman, C., and B. Vodde (2012). *The Scrum Primer: A Lightweight Guide to the Practice of Scrum, Version 2.0*. Available at: https://scrumprimer.org.
- (FREE ONLINE) Chapter 2 of LeSS (Introduction) of Larman, C., and B. Vodde (2016). *Large-Scale Scrum: More with LeSS*. Addison-Wesley Professional. ISBN-10: 0321985710; ISBN-13: 978-0321985712. Chapter 2 available at: https://less.works/less/framework/introduction.html. (Referred to as LeSS below.)

Prerequisites

Knowledge of the Software Development Life Cycle (SDLC) through courses such as SE 430 Object-Oriented Modeling, IS 421 Systems Analysis/IS 422 Systems Design, ECT 455/555 E-Commerce Web Site Engineering, HCI 513 Design/Strategies for Internet Commerce, or through appropriate practical work experience.

Class Format

This class is delivered entirely online. There are no scheduled virtual meetings of the whole class. There are weekly recorded lectures and other material to view online. Individual students and teams may schedule virtual meetings with the instructor, as needed.

Evaluation & Grading

Coursework includes the following components:

Coursework	Grade Proportion
Participation	10%
Individual Assignment	15%
Team Assignments	35%
Team Participation	10%
Quizzes	30%
Total	100%

Weekly participation. Students must post at least one substantive comment, relevant to the class topics and activities for the week, to the online participation forum. A substantive comment is one that further explores a topic covered in class or one posted by another student. A "thank you" or "that's interesting" does not constitute a substantive comment, nor does simply posting a URL without a substantive discussion of its relevance. Participation forums are NOT reopened after the participation due date. (LO1)

Individual Assignment. The individual assignment acts as a foundation exercise for the rest of the coursework, particularly the team assignments. (LO1)

Team Assignments/Team Participation. These are done as part of a team consisting of three or four students. Team assignments consist of practical exercises in performing various project management activities. Each team must complete a team working agreement. All students on each team are expected to contribute equally to every assignment. If a student does not contribute their fair portion to an assignment, that student's grade on the assignment is reduced. (See the 'Team Management and Behavior' subsection under 'Policies & Expectations' below for additional team policy details.) At the completion of each assignment, students must complete an online peer review of each of their teammates. The review is used, if necessary, to adjust a student's grade on the assignment and in determining each student's final team assignment participation grade component. Peer Reviews are NOT reopened after the Peer Review due date. (LO1-LO6)

Quizzes. Quizzes provide the student with the opportunity to test her or his basic comprehension of course material. Each quiz is available online in D2L for several days, so that the student may take the quiz at a convenient time. Quiz 3 is delivered online via D2L during the regular final exam week for the quarter. No time extensions are granted for quizzes without prior permission. (LO1- LO4)

Time Budget. Students should allow approximately 3-4 hours of work outside of class for each scheduled hour of class; this works out to 10-12 hours each week (on average) for most students. Team meetings and project collaboration may increase the amount of time required.

Grading Scale. Final letter grades will be given based on the following minimum percent of total points earned:

If the final numeric grade is less than:	and greater than or equal to:	the final letter grade is:
-	93	A
93	90	A-
90	87	B+
87	83	B
83	80	B-
80	77	C+
77	73	C
73	70	C-
70	67	D+
67	60	D
60	0	F

Grading and Final Grade Posting. Grading during the quarter is completed as soon as possible, usually within 10-14 days of assignment submission. Final grades will be posted as soon as possible after the end of the quarter, but not later than 19 June 2020 at 11:59 PM.

Grade Responsibility. Every effort is made to provide the student with the resources and support needed to succeed in the course. Grades are assigned fairly and impartially based on the coursework submitted by the student, without regard to external circumstances such as GPA goals or employer tuition reimbursement minimum grade requirements. It is the student's responsibility to earn his or her final grade. Please do not ask for a grade that you do not earn.

Student Support & Communication. Support for students is provided through arranged phone, Skype, or Zoom office hours and through online question-and-answer discussion forums on D2L. A convenient time for arranged office hours is determined mutually by the requesting students and instructor. Online discussion forums are available to all students for posting general coursework questions and comments. The instructor makes every effort to respond to postings within 24 hours. However, due to schedule issues, it occasionally may take longer to receive an instructor response. Email should be used only for

personal issues or for student- or team-specific coursework questions. Make all questions clear and specific.

Please include the course number (*e.g.*, SE 477) in the email *Subject:* field and include your full name in the *body* of the email.

Important note: *The instructor does not perform preliminary evaluation of assignments. Do not send partially-completed assignments to the instructor with a request such as "Am I on the right track?" or "Is this the sort of thing you want?"*

Class Topic Sequence (*provisional—subject to revision*)

This course will be undergoing substantial revision throughout the quarter. Though the topic groups and sequencing *likely* will remain the same, there may be a need to make changes to these. Thus, only one date is listed in the following schedule: the official due date of the final exam.

A detailed course schedule with assignments and *provisional* due dates is provided in the Checklist on D2L. The D2L Checklist represents the definitive class schedule for all coursework and will be updated, if necessary, as the quarter progresses.

Topic Group 1

Course Logistics Introduction	
Projects and Project Management	*Reading:* PMBOK-SWE Ch. 1

Topic Group 2

Project and System Development Lifecycles I & II	*Reading:* PMBOK-SWE Ch. 2; Scrum Primer (all); LeSS (through LeSS Framework)

Topic Group 3

Initiating Processes I & II	*Reading:* PMBOK-SWE Ch. 3.3
Develop Project Charter	*Reading:* PMBOK-SWE Ch. 4 Intro & 4.1
Identify Stakeholders	*Reading:* PMBOK-SWE Ch. 13 Intro & 13.1

Tentative: Quiz 1 follows Group 3

Topic Group 4

Planning Processes Overview	*Reading:* PMBOK-SWE Ch. 3.4

Topic Group 5

Planning Processes I: Stakeholder Management	
Plan Stakeholder Management	*Reading:* PMBOK-SWE Ch. 13.2

Topic Group 6

Planning Processes II: Scope Management	*Reading:* PMBOK-SWE Ch. 5 Intro
Plan Scope Management	*Reading:* PMBOK-SWE Ch. 5.1
Collect Requirements	*Reading:* PMBOK-SWE Ch. 5.2

Topic Group 7

Planning Processes III: Scope Management	
Define Scope	*Reading:* PMBOK-SWE Ch. 5.3
Create WBS	*Reading:* PMBOK-SWE Ch. 5.4

Tentative: Quiz 2 follows Group 7

Topic Group 8

Planning Processes IV: Risk Management   *Reading:* PMBOK-SWE Ch. 11 Intro
  Identify Risks   *Reading:* PMBOK-SWE Ch. 11.2
  Perform Qualitative Risk Analysis   *Reading:* PMBOK-SWE Ch. 11.3
  Plan Risk Responses   *Reading:* PMBOK-SWE Ch. 11.5

Topic Group 9

Planning Processes V: Time Management   *Reading:* PMBOK-SWE Ch. 6 Intro
  Define Activities   *Reading:* PMBOK-SWE Ch. 6.2
  Sequence Activities   *Reading:* PMBOK-SWE Ch. 6.3
  Estimate Activity Resources   *Reading:* PMBOK-SWE Ch. 6.4
  Estimate Activity Durations   *Reading:* PMBOK-SWE Ch. 6.5

Topic Group 10

Planning Processes VI: Time Management
  Develop Schedule   *Reading:* PMBOK-SWE Ch. 6.6

Topic Group 11

Integration Processes   *Reading:* PMBOK-SWE Ch. 4 Intro (review)
  Develop Project Management Plan   *Reading:* PMBOK-SWE Ch. 4.2
  Survey of Project Execution, Monitoring and Control, and Closing Processes
  Reading: PMBOK-SWE Ch. 3 Intro & 3.5, 3.6, 3.7

Week 11   *Final exams week—no class recording*

Thu 11 Jun   ▶ **Due: Quiz 3** (available online in D2L for 3-4 days prior; this last availability date)

Final grades will be posted ASAP but no later than 11:59 PM on Jun 19.

Policies & Expectations

An asterisk '*' following a heading indicates that the section includes an instructor-specific policy

Guidelines for Course Behavior

- Take an active role in class discussions and activities.
- Practice professionalism in your communications (face-to-face, emails, etc.) with the professor and fellow students.

Attitude

A professional and academic attitude is expected throughout this course. Measurable examples of non-academic or unprofessional attitude include but are not limited to: talking to others when the instructor is speaking, mocking another's opinion, cell phones ringing, emailing, texting, or using the internet whether on a phone, tablet, or computer. If any issues arise a student may be asked to leave the classroom. The professor will work with the Dean of Students Office to navigate such student issues.

Team Management and Behavior*

Teamwork is an integral part of this course. The primary purpose of teams in this course is to provide diverse perspectives and skills for the coursework, *not* to reduce the amount of work done by individual students. Whenever possible, all team members should attempt every element of the coursework, then the team as whole should combine the individual efforts into the final product for submission. This gives all students experience in every element of the coursework, and provides a richer and more coherent final product.

Since team sizes are small, teams are encouraged to use a consensus approach to decision making:

- Discuss and weigh the pros and cons of each decision option;
- Work toward the options that have the most benefit for the project;
- When it is clear which option is most suitable, work with its opponents to help them accept it—persuade, do not dictate.

Consensus takes more time than majority rule by vote, but reduces team friction and generally is more effective for small teams.

It is expected that all members of a team participate fully and equally in all team planning efforts, meetings, decisions, and coursework. To encourage and assess this participation, the course utilizes a confidential online Peer Review system. The following team member participation criteria are evaluated in the Peer Review:

Initiative: Was the individual a leader in organizing the project effort or did the individual take initial actions to successfully get the project started?

Reliability: Did the individual attend required meetings, promptly answer email, and provide materials when they were due?

Amount of work: Did the individual contribute an average (expected) amount of work, contribute more work than other team members, or contribute less work than others?

Quality of work: Did the individual contribute work that required little additional editing or few corrections?

Support of learning: Did team members learn from the individual, possibly through informed discussion or constructive feedback? Did the person contribute to a supportive environment where thoughts and ideas were welcomed?

Students receive credit for completing each Peer Review. However, if you rate everyone a 25 or a 0, you must redo the peer review but you will not receive credit for it—the instructor expects thoughtful evaluations.

For the results of Peer Reviews that are applied toward coursework grades, the following grade adjustment policy applies:

The average of the scores you receive from your team members acts as a multiplier for the relevant coursework. The scores you give to yourself are not included in the average. The following gives the resulting percentage of the coursework element grade you receive based on your average Peer Review score from your team members. Note that the first step is a steep one: a full 20% reduction in the affected coursework grades:

- Average score of 15 to 25 points: 100% of coursework element grade (no reduction)
- Average score of 11 to 14 points: 80% of coursework element grade (20% reduction)
- Average score of 6 to 10 points: 70% of coursework element grade (30% reduction)
- Average score of 1 to 5 points: 60% of coursework element grade (40% reduction)
- Average score of 0 points will be investigated (variable reduction, up to 100%)

Students who have their grades reduced as a result of the Peer Review process receive an explanatory email from the instructor shortly after the unreduced assignment grade is posted.

Teams that have significant participation, behavioral, or other difficulties with a team member first should attempt to resolve the problems with the problematic team member causing the difficulties. BE EXPLICIT WITH THE PROBLEMATIC TEAM MEMBER: *let the problematic team member know that there is a problem and work with them to resolve the problem*. Do not simply make vague or oblique statements or suggestions. If the team member refuses input or persists in failing to participate, exhibiting inappropriate behavior, or causing other disruptive conditions, the team should contact the instructor via email—copying all other team members except the problematic member—rather than wait to raise the issue via the Peer Review process. The team should provide the instructor with a clear description of the issue(s), evidence supporting their issue claims (such as emails or samples of the problematic team member's contributions), and a suggested action by the instructor. In most cases, the instructor will attempt to resolve the issue with the least amount of disruption to the team. Most problematic team members will receive one written email warning from the instructor. After the warning, if the disruptive behavior persists and the team feels it is warranted, it may request that the instructor remove the team member from the team. In exceptional behavioral situations or under tight time constraints, the instructor may remove the problematic team member immediately, without an email warning. Removal from a team is at the instructor's discretion. A removed student must complete in full all remaining team assignments individually and incurs a 20% grade penalty on all remaining team assignments.

Civil Discourse

DePaul University is a community that thrives on open discourse that challenges students, both intellectually and personally, to be Socially Responsible Leaders. It is the expectation that all dialogue in this course is civil and respectful of the dignity of each student. Any instances of disrespect or hostility can jeopardize a student's ability to be successful in the course. The professor will partner with the Dean of Students Office to assist in managing such issues.

Exceptional Circumstances*

Every effort is made to accommodate students who encounter exceptional personal circumstances during the quarter. Students who experience unanticipated personal, work, health, or family emergencies should notify the instructor by email or phone as soon as possible after the emergency with a brief explanation of the circumstances and any anticipated impact these might have on coursework. Students who have anticipated exceptional circumstances such as secular or religious holiday observances, medical treatment, or travel must notify the instructor as early as possible of these circumstances and any anticipated impact these might have on coursework. In both unanticipated and anticipated cases, a suitable plan for dealing with the coursework impact is agreed upon by the student and instructor. In some cases, suitable documentation of the exceptional circumstances may be requested by the instructor.

Formal University Policy: Excused Absence

In order to petition for an excused absence, students who miss class due to illness or significant personal circumstances should complete the Absence Notification process through the Dean of

Students office. The form can be accessed at http://studentaffairs.depaul.edu/dos/academicprocesses.html. Students must submit supporting documentation alongside the form. The professor reserves the sole right whether to offer an excused absence and/or academic accommodations for an excused absence.

Incomplete Grades

An incomplete grade is a special, temporary grade that may be assigned by an instructor when unforeseeable circumstances prevent a student from completing course requirements by the end of the term and when otherwise the student had a record of satisfactory progress in the course. CDM policy requires the student to initiate the request for incomplete grade before the end of the term in which the course is taken. Prior to submitting the incomplete request, the student must discuss the circumstances with the instructor. Students may initiate the incomplete request process in MyCDM.

- All incomplete requests must be approved by the instructor of the course and a CDM Associate Dean. Only exceptional cases will receive such approval.
- If approved, students are required to complete all remaining course requirement independently in consultation with the instructor by the deadline indicated on the incomplete request form.
- By default, an incomplete grade will automatically change to a grade of'F' after two quarters have elapsed (excluding summer) unless another grade is recorded by the instructor.
- An incomplete grade does NOT grant the student permission to attend the same course in a future quarter.

Withdrawal

Students who withdraw from the course do so by using the Campus Connection system (http://campusconnect.depaul.edu. Withdrawals processed via this system are effective the day on which they are made. Simply ceasing to attend, or notifying the instructor, or nonpayment of tuition, does not constitute an official withdrawal from class and will result in academic as well as financial penalty.

Retroactive Withdrawal

This policy exists to assist students for whom extenuating circumstances prevented them from meeting the withdrawal deadline. During their college career students may be allowed one medical/personal administrative withdrawal and one college office administrative withdrawal, each for one or more courses in a single term. Repeated requests will not be considered. Submitting an appeal for retroactive withdrawal does not guarantee approval.

College office appeals for CDM students must be submitted online via MyCDM. The deadlines for submitting appeals are as follows:

- Autumn Quarter: Last day of the last final exam of the subsequent winter quarter
- Winter Quarter: Last day of the last final exam of the subsequent spring quarter
- Spring Quarter: Last day of the last final exam of the subsequent autumn quarter
- Summer Terms: Last day of the last final exam of the subsequent autumn quarter

Coursework Grade Review Requests*

Every effort is made to grade in a fair and consistent manner. Should a disagreement arise about a coursework grade, the student may submit a grade review request in writing to the instructor. The request must be submitted within 48 hours after the assignment grade has been posted—requests submitted after 48 hours are not considered. The request must include the student's argument for a different grade evaluation, based on verifiable evidence presented by the student. The instructor handles grade review requests and responds to the student with a review decision as soon as possible.

Academic Integrity Policy and Plagiarism*

This course will be subject to the academic integrity policy passed by faculty. More information can be found at http://academicintegrity.depaul.edu/.

The university and school policy on plagiarism can be summarized as follows: Students in this course should be aware of the strong sanctions that can be imposed against someone guilty of plagiarism. If proven, a charge of plagiarism could result in an automatic grade of 'F' in the course and possible expulsion. The strongest of sanctions will be imposed on anyone who submits as his/her own work any assignment which has been prepared by someone else.

Instructor Policy Extensions: Academic Integrity Policy and Plagiarism*

All assignment submissions to D2L are subjected to automated plagiarism analysis using *Turnitin*. Originality analysis results are visible to the student.

Students must complete a short *Academic Integrity Awareness Quiz* before submitting their first assignment. If you have any questions about what constitutes an academic integrity violation or what its consequences might be, please be sure to have these questions answered before submitting your first assignment.

Resources for Students with Disabilities

Students who feel they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs. All discussions will remain confidential.

To ensure that you receive the most appropriate accommodation based on your needs, contact the instructor as early as possible in the quarter (preferably within the first week of class), and make sure that you have contacted the Center for Students with Disabilities (CSD) at:

Student Center, LPC, Suite #370
Phone number: (773)325.1677
Fax: (773)325.3720
TTY: (773)325.7296

Online Instructor Evaluation

Instructor and course evaluations provide valuable feedback that can improve teaching and learning. The greater the level of participation, the more useful the results. As students, you are in the unique position to view the instructor over time. Your comments about what works and what doesn't can help faculty build on the elements of the course that are strong and improve those that are weak. Isolated comments from students and instructors' peers may also be helpful, but evaluation results based on high response rates may be statistically reliable (believable). As you experience this course and material, think about how your learning is impacted. Your honest opinions about your experience in and commitment to the course and your learning may help improve some components of the course for the next group of students. Positive comments also show the department chairs and college deans the commitment of instructors to the university and teaching evaluation results are one component used in annual performance reviews (including salary raises and promotion/tenure). The evaluation of the instructor and course provides you an opportunity to make your voice heard on an important issue—the quality of teaching at DePaul. Don't miss this opportunity to provide feedback!

Changes to Syllabus

This syllabus is subject to change as necessary during the quarter. If a change occurs, it will be thoroughly addressed during class, posted under *News* in D2L and sent via email.