

Managing Technology Projects

CIS 79–62Z

Instructor Robert (Bob) Slate

Phone 650-823-3205

E-Mail slatebob@fhda.edu

Preferred contact method: email

Questions via email: I will respond within 24 hours (longer on weekends or holidays)

Office Hours: Monday 12:00 noon – 1:00 pm (via Zoom meeting online)
<https://fhda-edu.zoom.us/j/96675866761>

Tuesday 4:00pm – 5:00 pm (via Zoom meeting online)
<https://fhda-edu.zoom.us/j/99905435102>

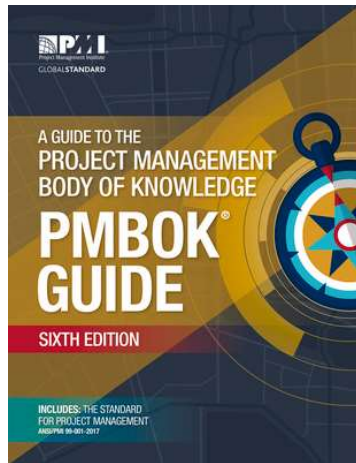
Other times by appointment (via Zoom meeting online)
Note: Nothing on campus due to COVID-19.

Course delivery: Asynchronous online

Course repository: Canvas learning management system

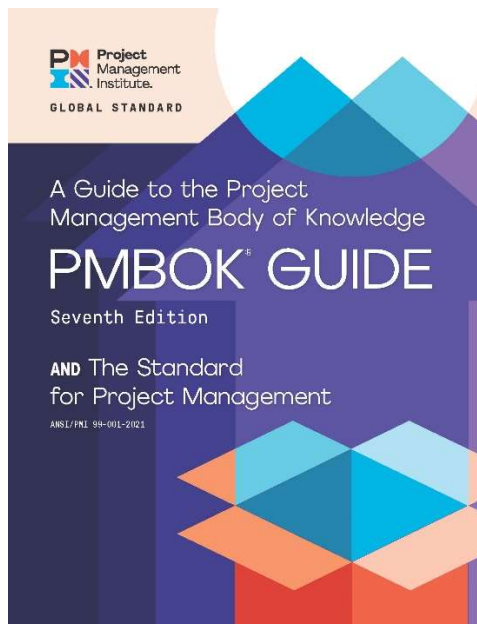
LEARNING MATERIALS:

1. **TEXTBOOK:** You have your choice of using either the 6th or 7th edition of the Project Management Institute's A Guide to the Project Management Body of Knowledge (PMBOK Guide). Lecture slides will pull material from both editions.
 - a. A Guide to the Project Management Body of Knowledge (PMBOK Guide), Sixth Edition; 2017. Project Management Institute. The 6th Edition is a 756-page process-oriented guide.
ISBN: 978-1-62825-184-5 (paperback, printed version).



Or

- b. A Guide to the Project Management Body of Knowledge (PMBOK Guide), Seventh Edition; August 2021. Project Management Institute. The 7th edition is a 370-page “principles-based” guide. ISBN 9781628256642 (paperback), ISBN 9781628256673 (PDF).



Either edition of the textbook can be obtained by several methods:

- (a) Joining the Project Management Institute as a student for \$32 and obtaining a PDF for free as part of your membership. The file cannot be printed, nor can you highlight sections.
- (b) Joining the PMI as a non-student and obtaining a PDF for free as part of your membership. You can also order a hardcopy using a 50% discount code through PMI’s publisher: Independent Publisher’s Group (IPG). Email: orders@ipgbook.com. Phone: 800-888-4741. Search for “PMBOK Seventh Edition” at the following link: <https://www.ipgbook.com/>
- (c) Order a hardcopy as a non-member of PMI through IPG for \$99.

2. Lecture materials posted on the Canvas Learning Management System. Recordings of the lectures will be made available with captioning, with links to them on the Canvas Learning Management System.
3. Access to project management software: Microsoft Project (free access as a De Anza College student with a De Anza email address, requires a Microsoft Windows-based computer) or ProjectLibre (free download, for those that do not have a Microsoft Windows-based computer).

STUDENT LEARNING OUTCOMES

1. Determine and fulfill the expectations of the client and complete the steps of a technology project.
2. Master the systematic approach to project design and management.

OBJECTIVES In this course, students will learn to:

- Plan projects with performance in mind.
- Determine and fulfill the expectations of the client.
- Understand the steps of a technology project.
- Internalize the project lifecycle.
- Master the systematic approach to project design and management.
- Identify risks in a project, analyze them, prepare and implement risk responses.
- Role-play management functions, project staffing, and project organizations.
- Integrate concepts into practical examples presented from industry.

ATTENDANCE

This is a 4.5-unit course with a 4-unit lecture component and a 0.5-unit lab component. Please follow the course calendar/plan in order to complete reading, quizzes, and lab work on time.

In order not to be dropped as a “no-show” you must complete the introductory survey “Quiz 0” by Sunday, October 2. You will not be automatically dropped once you have completed the introductory survey assignment. Once you have completed the introductory survey, if you wish to drop the class, it is *your responsibility to drop the class before the deadline in the Schedule of Classes*. Otherwise, an appropriate grade will be assigned at the end of the quarter.

Scholarly Conduct

Discussion and exchange of ideas on lab assignments are strongly encouraged. However, each person is expected to complete his/her own computer work. Identical solutions will be given a zero grade.

Copying or cheating during an exam will result in a zero being assigned to all the parties involved.

LAB ASSIGNMENTS

The lab assignments measure your ability to apply course concepts to hands-on skills in using commonly used software.

INCOMPLETE

No Incomplete for Lab Work - Keep up with Lab Assignments and turn in whatever you have at the end of the quarter. Incompletes will only be granted for justifiable reasons for projects not finished and 10% will be deducted from the project score.

ALL EXAMS ARE MANDATORY. Failure to take an exam will likely severely impact your grade in this class.

MIDTERM EXAM One midterm will be given during the quarter covering course terms and concepts during the first half of the course. There are usually 40 - 50 questions, mostly multiple choice, True/False, and perhaps with some fill-in the blanks. There may also be short "essay" questions. It will be held in Week 7 (starting between Thursday, November 10 8am California time and **completed by** Friday, November 11 11:59pm California time).

FINAL EXAM The final exam will be administered at the end of the quarter (Week 12, starting between Thursday, December 15 8am California time and **completed by** Friday, December 16 11:59pm California time). It will be a comprehensive exam, covering the entire course. We will review for the exam. You must take the final exam in order to pass the course.

POINTS The following points can be obtained for various activities:

ACTIVITY	Information	Weight/Points
Quizzes	Around 10, approximately weekly In Canvas	100
Midterm Exam	40-50 questions	100
Lab Assignments	Turned in as assigned	100
Final Exam	~50 questions	100
Total Points		400

SCORING/GRADES:

Your total score will be normalized to 100 and indexed into the grading scale below:

99%+=A+, 92-98=A, 90-91=A-, 88-89=B+, 82-87=B, 80-81=B-, 78-79=C+, 70-77=C, 60-69=D, <60=F

Percentages are rounded to the nearest whole number.

Posting Grades

At the end of the quarter you can view your grade in the course via MyPortal.

Course Plan for Fall 2022

WEEK	WEEK STARTING DATE (MON)	WEEK ENDING DATE (SUN)	ACTIVITIES/ASSIGNMENTS
Week 1	9/26/2022	10/2/2022	WEEK 1, LECTURE 1: Introduction; Textbook; Course Outline/Syllabus; Context in the De Anza Project Management curriculum WEEK 1, LECTURE 2: What is a project? PMI definition, UK Axelos PRINCE2 definition Overview of Project Management, Program Management, and Portfolio Management; Organizational Project Management Maturity Project Life Cycle Phases: Concept, Planning/Spec, Design/Develop, Test, Release to GA Project Management Process Groups: Initiating, Planning, Executing, Monitoring & Controlling, Closing Waterfall, Agile, Spiral, Hybrid Reading Assignment: PMBOK 6th Edition Chapter 1 (Introduction) pages 1-35; 7th Edition 2021 Standard Introduction pages 3-5, Chapter 2 pages 7-20, PMBOK 7th Edition: Development Approach and Life Cycle Performance Domain pages 32-50; pages 170-171. WEEK 1, LECTURE 3: Initiating a Project: Develop Project Charter; Identify Stakeholders ...Content of project charter ...Stakeholder identification (and other aspects of stakeholder management) Reading Assignment: PMBOK 6th Edition Chapter 4 pages 69-81 (project charter); Chapter 13 Project Stakeholder Management pages 503-536. 7th Edition 2021 Standard 3.3 Effectively Engage with Stakeholders pages 31-33, 3.4 Focus on Value pages 34-36. PMBOK 7th Edition 2.1 Stakeholder Performance Domain pages 8-15, Appendix X2 Sponsor pages 207-210. WEEK 1, LECTURE 4: Case Study: Biotechnology project: COVID-19 vaccine development WEEK 1, LECTURE 5: Preparation for Lab Exercises Lab Assignment #1: Please arrange for access to Microsoft Project (or ProjectLibre if you have a Mac) so you are ready for upcoming project exercises Quiz #0 (Homework Assignment): Short essay/questionnaire on your project management background Quiz #1 covering Week 1 lecture material (you do not need the textbook for this)
Week 2	10/3/2022	10/9/2022	WEEK 2, LECTURE 1: Planning a Project: Develop Project Management Plan (Overview of process, integration of subsidiary plans) Reading Assignment: PMBOK 6th Edition Chapter 4 pages 82-97 (Develop Project Management Plan). PMBOK 7th Edition 2.4.9 Alignment page 67; 2.8.2 Ambiguity page 120; 4.6.3 Plans pages 186-187. WEEK 2, LECTURE 2: Scope: Scope Management, Collect Requirements, Define Scope, Create WBS ...Examples of requirements, MoSCoW, Agile user stories/epics ...Defining Scope ...Creating a Work Breakdown Structure Reading Assignment: PMBOK 6th Edition Chapter 5 Scope Management pages 129-171. PMBOK 7th Edition 2.6 Delivery Performance Domain pages 80-85; 4.6.4 Hierarchy Charts page 187; Appendix X4 Product pages 217-225. WEEK 2, LECTURE 3: Case Study: EU RoHS (Restriction of Hazardous Substances) Compliance Exercise: Create a WBS for either the Case Study on vaccines or RoHS compliance, or any other technology project Quiz #2 covering Week 2 lecture material (you do not need the textbook for this)
Week 3	10/10/2022	10/16/2022	WEEK 3, LECTURE 1: Schedule Management ...Define Activities ...Sequence Activities (predecessor and successor activities) to reflect task dependencies ...Estimate Activity Durations (techniques for doing so) ...Develop Schedule Reading Assignment: PMBOK 6th Edition Chapter 6 Project Schedule Management (pages 173-230); PMBOK 7th Edition: 2.4 Planning Performance Domain pages 51-62. WEEK 3, LECTURE 2: Critical Path Management: Determining the critical path (hand calculations); forward and backward pass calculations; burst and sink nodes; float/slack Schedule Improvement techniques: Crashing, Fast-tracking Exercise: Homework to hand-calculate the critical path for a few examples; forward and backward pass calculations WEEK 3, LECTURE 3: Case study: COVID-19 Vaccine passport WEEK 3, LECTURE 4: Case Study: China Tariffs Quiz #3 covering Week 3 lecture material

Week 4	10/17/2022	10/23/2022	WEEK 4, LECTURE 1:
			Scheduling tools: using Microsoft Project, Excel (special case)
			...Overview of how Microsoft Excel could be used for a very simple project (e.g., China Tariffs)
			...Use of Microsoft Project (need access to lab or download Microsoft Azure student version that is free for one year; or ProjectLibre)
			WEEK 4, LECTURE 2:
			More on the use of Microsoft Project
			WEEK 4, LECTURE 3:
			Case Study: Networking switch systems development
			Lab Exercise: Biotechnology project schedule improvement (detailed schedules)
			Quiz #4
Week 5	10/24/2022	10/30/2022	WEEK 5, LECTURE 1:
			Cost Management
			...Estimating techniques: PERT formulas; Rough order of Magnitude, Budget Estimate, Definitive Estimate
			...Project budgeting
			...Monitoring to the baseline budget (Earned Value Management; Actuals versus Planned)
			...Reserves
			Spreadsheet for project expenses by accounting category
			Reading assignment: PMBOK 6th Edition Chapter 7 Project Cost Management pages 231-270; PMBOK 7th Edition: 2.4.2.4 Budget pages 62-63; 2.7 Measurement Performance Domain pages 93-115.
			WEEK 5, LECTURE 2:
			EVM (Earned Value Management)
			WEEK 5, LECTURE 3:
			Monitoring: sign-off on Purchase orders, anticipating upcoming expenses, working with the Finance group
			Staying on budget: ramifications of being over budget or under-budget
			Project management triangle: Cost/Resources, Schedule/Time, Scope/Quality
			Handling budget adjustments in economic downturns; accelerating/delaying expenses
			Lab Exercise: handling a "project budget haircut." Meet organization's financial needs; assess impact on project.
			Quiz #5
Week 6	10/31/2022	11/6/2022	WEEK 6, LECTURE 1:
			Resource Management
			...Estimating resources required
			...Availability of resources
			...Organizational capacity and capabilities
			...Organizational resource management systems (e.g., CA Clarity PPM, now part of Broadcom)
			Reading Assignment: PMBOK 6th Edition Chapter 9 Project Resource Management pages 307-358; PMBOK 7th Edition: 2.5 Project Work Performance Domain pages 51-68.
			WEEK 6, LECTURE 2:
			Pay rates: variability based on job functions, geographical area, etc.
			Handling resource availability issues
			Producing a resource usage histogram (used in phase gate presentations)
			WEEK 6, LECTURE 3:
			Using Microsoft Project to assign resources, cost out resources
			Lab Exercise: Assign resources to a chosen case study
			Quiz #6
Week 7	11/7/2022	11/13/2022	WEEK 7, LECTURE 1:
			Risk Management
			...Identify Risks (introduction to a Risk Register)
			...Qualitative and Quantitative Risk Analysis
			...Plan Risk Responses
			...Organization risk appetite, risk thresholds and how they affect running the project
			Reading Assignment: PMBOK 6th Edition Chapter 11 Project Risk Assignment p395-458; PMBOK 7th Edition: 2.8 Uncertainty Performance Domain pages 116-129.
			WEEK 7, LECTURE 2:
			Using a Risk Register
			What goes into a Risk Register, what goes into a "watch list"
			Handling low probability/high impact risks
			WEEK 7, LECTURE 3:
			Case Study: General Data Protection Regulation (GDPR) EU 2016/679
			Lab Exercise: Create a project schedule for GDPR compliance
			No quiz this week (due to the midterm)
			Midterm examination

Week 8	11/14/2022	11/20/2022	WEEK 8, LECTURE 1:
			Monitoring and Controlling topics
			Handling Scope Creep
			Change Control
			Escalations (issues, risks)
			WEEK 8, LECTURE 2:
			Quality Management: Handling a quality issue, e.g., Root Cause analysis (preventive versus corrective, Ishikawa diagrams, Pareto chart), getting things back on track, FMEA, 1-10-100 Rule, TIMWOOD, 5 Ss
			Reading Assignment: PMBOK 6th Edition 3.14 Plan Quality Management pages 580-581; 4.3 Manage Quality pages 599-600; 5.7 Control Quality pages 624-625; PMBOK 7th Edition Standard portion: 3.8 Build Quality into Processes and Deliverables pages 47-49; PMBOK 7th Edition definitions page 81; 2.6.3 Quality pages 87-91.
			WEEK 8, LECTURE 3:
			Case Study: Boeing 737 Max 8 Quality issue recovery
			WEEK 8, LECTURE 4:
			Case Study: Johnson & Johnson COVID-19 vaccine quality issue
			WEEK 8, LECTURE 5:
			Introduction to procurement: bid documents, contract types
			Reading Assignment: PMBOK 6th Edition: Chapter 12 Project Procurement Management pages 459-501; PMBOK 7th Edition: 2.4.6 Procurement p65, p70; 2.5.6 Working with Procurements pages 74-76.
			Quiz 7

Week 9	11/21/2022	11/27/2022	WEEK 9, LECTURE 1:
			Taking a project through its life cycle: case study, templates
			Phase 0: Concept (Initiating). Review a sample phase gate slide deck
			Phase 1: Planning. Review a sample phase gate slide deck
			WEEK 9, LECTURE 2:
			Continuation of prior lecture: Taking a project through its life cycle: case study
			Phase 2: Design/Developing
			Phase 3: Testing/Evaluation
			Phase 4: Release to Market/General Availability. Review a sample phase gate slide deck
			WEEK 9, LECTURE 3:
			Presenting to the Project Steering Committee/Governance Board
			...Prep stakeholders
			...Complete checklists in advance
			...Anticipate questions
			...Conditional approvals
			Exercise: Preparing phase-exit presentations (Phases 0,1,4) to be given to a hypothetical Project Steering Committee
			No quiz this week

Week 10	11/28/2022	12/4/2022	WEEK 10, LECTURE 1:
			Monitoring and Controlling: Part 2 (continuation)
			Preparing change requests, taking them to approval, incorporating changes into baselines
			Validate scope
			WEEK 10, LECTURE 2:
			You have planned a project in detail, things are executing very well and are being monitored, and then despite these efforts, things start to go wrong. What do you do?
			WEEK 10, LECTURE 3:
			Project Health Check: project status review with executives
			Quiz 8
			Exercises: Continue with phase-exit presentations (Phases 0,1,4) to be given to a hypothetical Steering Committee

Week 11	12/5/2022	12/11/2022	WEEK 11, LECTURE 1:
			Project leadership skills
			Reading Assignment: PMBOK 6th Edition: 3.4 Project Manager Competences pages 56-65. 9.4 Develop Team p336-344; 9.5 Manage Team pages 345-351. 4.5 Develop Team pages 602-603; 4.6 Manage Team pages 604-605; PMBOK 7th Edition: 4.2 Commonly Used Models pages 155-171.
			WEEK 11, LECTURE 2:
			Dealing with conflict: conflict resolution techniques
			WEEK 11, LECTURE 3:
			Organizational structure and why it matters
			Quiz 9
			Exercises: Finish phase-exit presentations (Phases 0,1,4) to be given to a hypothetical Steering Committee

Week 12	12/12/2022	12/18/2022	Note: 12/16/2022 is Friday, the last day of the Fall term.
			WEEK 12, LECTURE 1:
			Closing a project
			Compiling and sharing lessons learned
			Reading Assignment: PMBOK 6th Edition Chapter 4.7 Close Project or Phase pages 121-128; 4.4.3.1 Lessons Learned Register page 104. PMBOK 7th Edition: Page 47, p71; 2.5.8 Learning Throughout the Project pages 77-78. Chapter 3 Tailoring pages 131-152.
			WEEK 12, LECTURE 2:
			What project management practices do I use?
			Tailoring the processes to the nature of the project, complexity, duration, emergency situation
			Where is your company in terms of organizational project management maturity?
			Don't be ruled by your project management tools
			WEEK 12, LECTURE 3:
			Review of course material in preparation for the final
			No Exercise this week.
			Final Examination

Important Dates Fall 2022 (Academic Calendar)

<http://www.deanza.edu/calendar/>

SEPTEMBER 2-5	Labor Day Holiday – no classes; offices closed
SEPTEMBER 21	Division/Department Flex Day
SEPTEMBER 22	District Flex Day
SEPTEMBER 23	Division/Department Flex Day
SEPTEMBER 26	Fall classes begin
OCTOBER 8	Last day to add classes
OCTOBER 9	Last day to drop classes without a W
NOVEMBER 11	Veterans Day holiday – no classes; offices closed
NOVEMBER 18	Last day to drop classes with a W
NOVEMBER 24-27	Thanksgiving holiday – no classes; offices closed
DECEMBER 12-16	Final exams

Help and Support

Disability Accommodations:

De Anza College views disability as an important aspect of diversity and is committed to providing equitable access to learning opportunities for all students.

Disability Support Services (DSS) is the campus office that collaborates with students who have disabilities to provide and/or arrange reasonable accommodations. If you have, or think you have, a disability in any area such as, mental health, attention, learning, chronic health, sensory, or physical, please contact DSS to arrange a confidential discussion regarding equitable access and reasonable accommodations.

If you are registered with DSS and have accommodations set by a DSS counselor, please be sure that your instructor has received your accommodation letter from Clockwork early in the quarter to review how the accommodations will be applied in the course. Students who need accommodated test proctoring must meet appointment booking deadlines at the Testing Center. a) Midterm exam be booked at least five (5) business days in advance of the instructor approved exam date/time. b) Final exams must be scheduled seven (7) business days/weekdays in advance of the instructor approved exam date/time. Failure to meet appointment booking deadlines will result in the forfeit of testing accommodations and you will be required to take your exam with the class.

DSS Location: RSS Building, Suite 141 <http://www.deanza.edu/DSS/> Phone: 408-864-8753 Email: DSS@deanza.edu

Student Success Center:

Need help? Meet with tutors and attend workshops in the Student Success Center:

www.deanza.edu/studentsuccess. **Can't make it to campus?** Use the free online tutoring available to all De Anza students. Just login to MyPortal, go to the Students tab, and find the [Smarthinking](#) link.

OTHER USEFUL LINKS

- Resources On Campus: [Tutorial](#), [EOPS](#), [Counseling](#), etc...
- Classroom Conduct: [Academic Integrity](#). **Check the college website at:** https://www.deanza.edu/policies/academic_integrity.html
- [Mutual Respect Policy](#)
- [Student Grievance Procedure](#)
- [Student Rights & Responsibilities](#)
- **CARES EMERGENCY Care Funds:** <https://www.deanza.edu/resources/emergency-funds.html>
- **Special needs:** <http://www.deanza.edu/dsps/index.html>