

Spring 2024

## Managing Technology Projects

CRN 48728 CIS 79–64Z

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**Preferred contact method:** email

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

**Office Hours:** Monday April 8 - June 24, 2024 12:00 noon–1:00 pm (Zoom meeting online)  
<https://fhda-edu.zoom.us/j/88192912088>

Tuesday April 9 - June 25, 2024 4:00pm –5:00 pm (Zoom meeting online)  
<https://fhda-edu.zoom.us/j/88090301680>

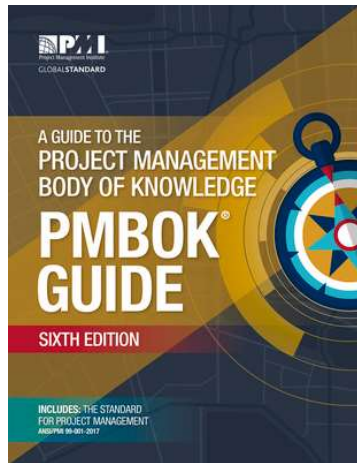
Other times by appointment (via Zoom meeting online)

**Course delivery:** Asynchronous online

**Course repository:** Canvas learning management system

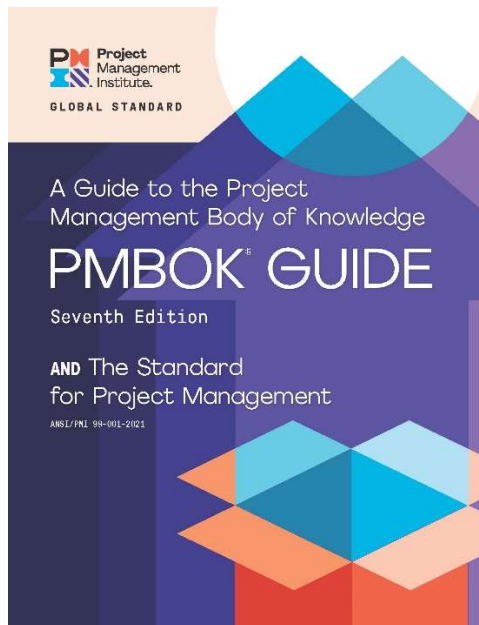
### LEARNING MATERIALS:

1. **TEXTBOOK:** You have your choice of using either the 6<sup>th</sup> or 7<sup>th</sup> 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 6<sup>th</sup> Edition is a 756-page process-oriented guide. If you have taken other project management classes at De Anza College, you may already have a copy.  
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 7<sup>th</sup> edition is a 370-page “principles-based” guide. ISBN 9781628256642 (paperback), ISBN 9781628256673 (PDF).



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](mailto: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.
- (d) Purchasing it through the De Anza Bookstore managed by Follett (has 7<sup>th</sup> edition).

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 through Microsoft Azure, 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 assignments on time. You do not need to physically go to an on-campus lab. You can do the assignments on your own computer and submit your work via Canvas.

In order not to be dropped as a “no-show” you must complete the introductory survey “Quiz 0” by Tuesday, April 16, 2024. 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, May 23, 2024 8am California time and **completed by** Friday, May 24, 2024 11:59pm California time).

**FINAL EXAM** The final exam will be administered at the end of the quarter (Week 12, starting between Thursday, June 27, 2024 8am California time and **completed by** Friday, June 28, 2024 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 Spring 2024

WEEK	WEEK STARTING DATE (MON)	WEEK ENDING DATE (SUN)	ACTIVITIES/ASSIGNMENTS
Week 1	4/8/2024	4/14/2024	<b>WEEK 1, LECTURE 1:</b> Introduction; Textbook; Course Outline/Syllabus; Context in the De Anza Project Management curriculum
			<b>WEEK 1, LECTURE 2:</b> 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/Specification, 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.
			<b>WEEK 1, LECTURE 3:</b> 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.
			<b>WEEK 1, LECTURE 4:</b> Case Study: Biotechnology project: COVID-19 vaccine development
			<b>WEEK 1, LECTURE 5: Preparation for Lab Exercises</b>
			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	WEEK STARTING DATE (MON)	WEEK ENDING DATE (SUN)	ACTIVITIES/ASSIGNMENTS
Week 2	4/15/2024	4/21/2024	<b>WEEK 2, LECTURE 1:</b> 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.
			<b>WEEK 2, LECTURE 2:</b> 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.
			<b>WEEK 2, LECTURE 3:</b> 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	WEEK STARTING DATE (MON)	WEEK ENDING DATE (SUN)	ACTIVITIES/ASSIGNMENTS
Week 3	4/22/2024	4/28/2024	<b>WEEK 3, LECTURE 1:</b>
			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.
			<b>WEEK 3, LECTURE 2:</b>
			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
			<b>WEEK 3, LECTURE 3:</b>
			Case study: COVID-19 Vaccine passport
			<b>WEEK 3, LECTURE 4:</b>
			Case Study: China Tariffs
			Quiz #3 covering Week 3 lecture material

WEEK	WEEK STARTING DATE (MON)	WEEK ENDING DATE (SUN)	ACTIVITIES/ASSIGNMENTS
Week 4	4/29/2024	5/5/2024	<b>WEEK 4, LECTURE 1:</b>
			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)
			<b>WEEK 4, LECTURE 2:</b>
			More on the use of Microsoft Project
			<b>WEEK 4, LECTURE 3:</b>
			Case Study: Networking switch systems development
			Lab Exercise: Biotechnology project schedule improvement (detailed schedules)
			Quiz #4

WEEK	WEEK STARTING DATE (MON)	WEEK ENDING DATE (SUN)	ACTIVITIES/ASSIGNMENTS
Week 5	5/6/2024	5/12/2024	<b>WEEK 5, LECTURE 1:</b>
			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.
			<b>WEEK 5, LECTURE 2:</b>
			EVM (Earned Value Management)
			<b>WEEK 5, LECTURE 3:</b>
			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	WEEK STARTING DATE (MON)	WEEK ENDING DATE (SUN)	ACTIVITIES/ASSIGNMENTS
Week 6	5/13/2024	5/19/2024	<b>WEEK 6, LECTURE 1:</b>
			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 69-79.
			<b>WEEK 6, LECTURE 2:</b>
			Pay rates: variability based on job functions, geographical area, etc.
			Handling resource availability issues
			Producing a resource usage histogram (used in phase gate presentations)
			<b>WEEK 6, LECTURE 3:</b>
			Using Microsoft Project to assign resources, cost out resources
			Lab Exercise: Assign resources to a chosen case study
			Quiz #6

WEEK	WEEK STARTING DATE (MON)	WEEK ENDING DATE (SUN)	ACTIVITIES/ASSIGNMENTS
Week 7	5/20/2024	5/26/2024	<b>WEEK 7, LECTURE 1:</b>
			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.
			<b>WEEK 7, LECTURE 2:</b>
			Using a Risk Register
			What goes into a Risk Register, what goes into a "watch list"
			Handling low probability/high impact risks
			<b>WEEK 7, LECTURE 3:</b>
			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)
			<b>Midterm examination (Thursday 5/23/24 8am-Friday 5/24/24 11:59pm)</b>

WEEK	WEEK STARTING DATE (MON)	WEEK ENDING DATE (SUN)	ACTIVITIES/ASSIGNMENTS
Week 8	5/27/2024	6/2/2024	<b>WEEK 8, LECTURE 1:</b>
			Monitoring and Controlling topics
			Handling Scope Creep
			Change Control
			Escalations (issues, risks)
			<b>WEEK 8, LECTURE 2:</b>
			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.
			<b>WEEK 8, LECTURE 3:</b>
			Case Study: Boeing 737 Max 8 Quality issue recovery
			<b>WEEK 8, LECTURE 4:</b>
			Case Study: Johnson & Johnson COVID-19 vaccine quality issue
			<b>WEEK 8, LECTURE 5:</b>
			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	WEEK STARTING DATE (MON)	WEEK ENDING DATE (SUN)	ACTIVITIES/ASSIGNMENTS
Week 9	6/3/2024	6/9/2024	<b>WEEK 9, LECTURE 1:</b>
			<b>Taking a project through its life cycle: case study, templates</b>
			<b>Phase 0: Concept (Initiating). Review a sample phase gate slide deck</b>
			<b>Phase 1: Planning. Review a sample phase gate slide deck</b>
			<b>WEEK 9, LECTURE 2:</b>
			Continuation of prior lecture: Taking a project through its life cycle: case study
			Phase 2: Design/Developing
			Phase 3: Testing/Evaluation
			<b>Phase 4: Release to Market/General Availability. Review a sample phase gate slide deck</b>
			<b>WEEK 9, LECTURE 3:</b>
			<b>Presenting to the Project Steering Committee/Governance Board</b>
			...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	WEEK STARTING DATE (MON)	WEEK ENDING DATE (SUN)	ACTIVITIES/ASSIGNMENTS
Week 10	6/10/2024	6/16/2024	<b>WEEK 10, LECTURE 1:</b>
			Monitoring and Controlling: Part 2 (continuation)
			Preparing change requests, taking them to approval, incorporating changes into baselines
			Validate scope
			<b>WEEK 10, LECTURE 2:</b>
			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?
			<b>WEEK 10, LECTURE 3:</b>
			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	WEEK STARTING DATE (MON)	WEEK ENDING DATE (SUN)	ACTIVITIES/ASSIGNMENTS
Week 11	6/17/2024	6/23/2024	<b>WEEK 11, LECTURE 1:</b>
			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.
			<b>WEEK 11, LECTURE 2:</b>
			Dealing with conflict: conflict resolution techniques
			<b>WEEK 11, LECTURE 3:</b>
			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	WEEK STARTING DATE (MON)	WEEK ENDING DATE (SUN)	ACTIVITIES/ASSIGNMENTS
Week 12	6/24/2024	6/28/2024	Note: 6/28/2024 is Friday, the last day of the Fall term.
			<b>WEEK 12, LECTURE 1:</b>
			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.
			<b>WEEK 12, LECTURE 2:</b>
			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
			<b>WEEK 12, LECTURE 3:</b>
			Review of course material in preparation for the final
			No Exercise this week.
			<b>Final Examination (Thursday 6/27/2024 8am-Friday 6/28/2024 11:59pm)</b>
			<b>End of Course Survey (10 points)</b>

### **Important Dates Spring 2024 (Academic Calendar)**

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

[Academic Calendar \(deanza.edu\)](http://www.deanza.edu/calendar/)

<https://www.deanza.edu/calendar/index.html>

<b>JANUARY 30</b>	<b>View schedule of classes for spring 2024</b>
<b>FEBRUARY 1</b>	<b>Application for admission open</b>
<b>FEBRUARY 20</b>	<b>Registration opens based on Priority Registration group</b>
<b>FEBRUARY 20</b>	<b>Group 1-A registration opens</b>
<b>FEBRUARY 21</b>	<b>Group 1-B registration opens</b>
<b>FEBRUARY 22</b>	<b>Group 2 registration opens</b>
<b>FEBRUARY 23</b>	<b>Group 3 registration opens</b>
<b>FEBRUARY 26</b>	<b>Group 4 registration opens</b>
<b>FEBRUARY 27</b>	<b>Group 5 registration opens</b>
<b>FEBRUARY 28</b>	<b>Group 6 registration opens</b>
<b>FEBRUARY 29</b>	<b>Group 7 registration opens</b>
<b>MARCH 1</b>	<b>Group 8 registration opens</b>
<b>APRIL 8</b>	<b>Spring classes begin</b>
<b>MAY 25-27</b>	<b>Memorial Day Weekend - no classes, offices closed</b>
<b>MAY 31</b>	<b>Last day to drop classes with a W</b>
<b>JUNE 19</b>	<b>Juneteenth Holiday - no classes, offices closed</b>
<b>JUNE 24-28</b>	<b>Final exams</b>
<b>JUNE 29</b>	<b>Graduation</b>

### **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](mailto:DSS@deanza.edu)

### **Student Success Center:**

**Need help?** Meet with tutors and attend workshops in the Student Success Center: [www.deanza.edu/studentsuccess](http://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](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>