# San José State University Lucas Graduate School of Business Master of Science in Transportation Management MTM 260: Project Management for Transportation Fall-B 2022

#### **Course and Instructor Contact Information**

Instructor:	Nigel Blampied
Email:	nigel.blampied@sjsu.edu
Office Hours:	By appointment. Please find a free time on my SJSU Google calendar at least 48 hours ahead, and send an invitation.
Class Day/Time:	Mondays, 5:30 - 9:30 pm (Pacific), October 10 - December 12, 2022.
Classroom:	All classes held on Zoom
Grading rules:	Normal grade rules apply
Units:	3
Course website:	Canvas ( <u>http://sjsu.instructure.com</u> )

### **Course Format**

Students must have regular access to email and the internet in order to communicate with the instructor, submit assignments, and engage in other class activities.

Students will join class using Zoom. During classes, students should:

- Be in a quiet room without distractions (e.g., no family members or colleagues walking through or asking questions)
- Have stable internet access
- Use a video camera and good quality microphone so that you are seen as well as heard
- Follow good "meeting etiquette" principles (one such list: <u>https://blog.gotomeeting.com/7-rules-virtual-meeting-etiquette-every-professional-know/</u>)

To access class sessions by Zoom, click on the following link from your computer or tablet: *A Zoom address will be provided* 

Plan to join at least ten minutes before 5:30 pm, to make sure you are ready when class begins. (The very first time you join from a computer or device, allow extra time for set-up.)

The university has many useful tutorials on how to use Zoom here: <u>http://www.sjsu.edu/ecampus/teaching-tools/zoom/index.html</u>

#### **Course Description**

Reviews the generally recognized good practices for the management of projects, programs, and portfolios, as laid out by the Project Management Institute (PMI) and the International Organization for Standardization (ISO). Considers whether and how those practices apply in transportation. Compares project management practices in the US transportation industry to practices in other industries, such as software engineering, and to practices in other countries. Students will examine in depth the use of a selected practice in an organization of their choice.

#### **Course Learning Outcomes**

Upon successful completion of this course, students will be able to:

- 1. Explain the distinction between project management, program management, and portfolio management.
- 2. Describe how management approaches differ between project management, program management, and portfolio management.
- 3. Describe the five standard project management process groups and the ten standard project management knowledge areas and how they are used in projects.
- 4. Perform basic project scheduling and estimating.
- 5. Describe the five standard program management performance domains and how they are used in project programs.
- 6. Describe the six standard portfolio management performance domains and how they are used in project portfolios.
- 7. Translate the project development terms used in transportation agencies into standard project management terms, and vice versa.
- 8. Identify how transportation projects are similar to and different from projects defined in the American National and International Standards.
- 9. Use library and online resources to expand upon the standards and develop an understanding of the state of the art of selected knowledge areas and performance domains in transportation organizations.
- 10. Evaluate the application of selected knowledge areas and performance domains in a transportation organization.

#### **MSTM Program Goals**

(Note: Not all program learning goals are covered in every course)

**Goal One: Management of Transportation Organizations:** Develop a systems-savvy and global perspective on solving transportation management challenges

**Goal Two: Transportation Policy:** Develop solutions to transportation management challenges that integrate knowledge of the transportation policy environment

Goal Three: Leadership: Identify and analyze leadership styles and traits

Goal Four: Communication Skills: Communicate effectively with a diverse workforce and citizenry

Goal Five: Analytical Skills: Identify and evaluate transportation management issues using appropriate data and methods

#### **Required Texts/Readings**

Readings for this course are available online through library.sjsu.edu using your SJSU log-on or on the Internet. You might also qualify for student membership in the Project Management Institute, for \$32, which would allow you to download .pdf copies of the PMI documents below.

#### **Required reading**

- PMI. 2017a. *The Standard for Project Management*. ANSI/PMI 99-001-2017. Published as Part 2 of PMI 2017a below. Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-184-5
- PMI. 2017b. *The Standard for Program Management Fourth Edition*. ANSI/PMI 08-002-2017. Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-196-8
- PMI. 2017c. *The Standard for Portfolio Management Fourth Edition*. ANSI/PMI 08-003-2017. Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-197-5
- PMI. 2017d. A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition. Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-184-5
- PMI. 2019a. *Practice Standard for Work Breakdown Structures Third Edition*. Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-619-2
- PMI. 2019b. *The Standard for Risk Management in Portfolios, Programs, and Projects*. Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-565-2
- PMI. 2019c. *Practice Standard for Scheduling Third Edition*. Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-561-4
- PMI. 2019d. *Practice Standard for Project Estimating Second Edition*. Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-642-0

#### Student-selected reading

Academic papers selected by students for their term projects though systematic searches of databases such as Scopus and Proquest Dissertations and Theses.

#### **Optional supplemental reading**

Anderson, S., Molenaar, K., and Schexnayder, C. 2007. Guidance for Cost Estimation and Management for Highway Projects During Planning, Programming, and Preconstruction, National Cooperative Highways *Research Program Report 574*, Transportation Research Board, Washington, DC. Available at http://www.trb.org/Publications/Blurbs/158464.aspx

- Anderson, S., Molenaar, K., and Schexnayder, C. 2009. Procedures Guide for Right-of-Way Cost Estimation and Cost Management, National Cooperative Highways Research Program Report 625, Transportation Research Board, Washington, DC. Available at http://www.trb.org/Main/Blurbs/162271.aspx
- ISO. 2015. Project, programme and portfolio management -- Guidance on portfolio management, ISO 21504:2015. International Organization for Standardization, Geneva.
- ISO. 2017a. *Project, programme and portfolio management -- Guidance on programme management,* ISO 21503:2017. International Organization for Standardization, Geneva.
- ISO. 2017b. *Project, programme and portfolio management -- Guidance on governance*, ISO 21505:2017, International Organization for Standardization, Geneva.
- ISO. 2018a. *Earned value management in project and programme management*, ISO 21508:2018. International Organization for Standardization, Geneva.
- ISO. 2018b. *Work breakdown structures for project and programme management*, ISO 21511:2018. International Organization for Standardization, Geneva.
- ISO. 2018c. *Project, programme and portfolio management Vocabulary,* ISO/TR 21506:2018. International Organization for Standardization, Geneva.
- ISO. 2020. *Guidance on project management*, ISO 21502:2020. International Organization for Standardization, Geneva.
- Marshall, K. R., and Rousey, S. 2009. *Guidance for Transportation Project Management*. Transportation Research Board, Washington, DC. https://doi.org/10.17226/23028.
- PMI. 2006. *Government Extension to the PMBOK*® *Guide Third Edition*. Project Management Institute, Newtown Square, PA. ISBN: 978-1-930699-91-5
- PMI. 2013a. Organizational Project Management Maturity Model Third Edition. ANSI/PMI 08-004-2013. Project Management Institute, Newtown Square, PA. ISBN: 978-1-935589-70-9
- PMI. 2013b. *Managing Change in Organizations: A Practice Guide*. Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-015-2
- PMI. 2013c. Software Extension to the PMBOK® Guide Fifth Edition. Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-013-8
- PMI. 2014a. *Implementing Organizational Project Management: A Practice Guide*. Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-035-0
- PMI. 2014b. *Navigating Complexity: A Practice Guide*. Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-036-7
- PMI. 2015. *Business Analysis for Practitioners: A Practice Guide*. Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-069-5
- PMI. 2016a. *Construction Extension to the PMBOK® Guide*. Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-090-9
- PMI. 2016b. *Governance of Portfolios, Programs, and Projects: A Practice Guide*. Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-088-6

- PMI. 2016c. *Requirements Management: A Practice Guide*. Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-089-3
- PMI. 2017e. *Agile Practice Guide*. Published with PMI 2017a above. Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-199-9
- PMI. 2017f. *PMI Guide to Business Analysis*. Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-198-2
- PMI. 2017g. Project Manager Competency Development Framework Third Edition Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-091-6
- PMI. 2018. *The Standard for Organizational Project Management*. Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-200-2
- PMI. 2019c. *The Standard for Earned Value Management*. Project Management Institute, Newtown Square, PA. ISBN: 978-1-62825-638-3
- Shane, J.S., Gransberg, D.D., and Strong, K.C. 2014. Project Management Strategies for Complex Projects, Report S2-R10-RW-1. Transportation Research Board, Washington, DC. Available from https://www.nap.edu/catalog/22755/guide-to-project-management-strategies-for-complex-projects
- Shane, J.S., Strong, K.C., and Gransberg, D.D. 2013. Guide to Project Management Strategies for Complex Projects, Report S2-R10-RW-2. Transportation Research Board, Washington, DC. Available from http://www.trb.org/Publications/Blurbs/167482.aspx
- Trauner Consulting Services. 2007. Innovative Procurement Practices: Alternative Procurement and Contracting Methods, contract No. 53A0104, Task 3.2 and 3.3. Prepared for California Department of Transportation, May 9, 2007. Sacramento, CA.
- US Department of Defense. 2003. Extension to A Guide to the Project Management Body of Knowledge (PMBOK® Guide) – First Edition, version 1.0. Defense Acquisition University Press, Fort Belvoir, VA. Available from https://permanent.access.gpo.gov/lps44091/DoDExtPMBOK--June+03.pdf

### **Citation Style and File Name Convention**

It is important to properly cite any references you use in your assignments. For this class, use the American Society of Civil Engineers citation style, which is a version of the Author-Date Style described in Kate Turabian's *A Manual for Writers of Research Papers, Theses, and Dissertations*, 9th edition. See <a href="https://ascelibrary.org/doi/pdf/10.1061/9780784479018">https://ascelibrary.org/doi/pdf/10.1061/9780784479018</a>.

### Library Liaison

The Library Liaison for the Lucas Graduate School of Business is Christa Bailey (christa.bailey@sjsu.edu).

#### **Course Requirements and Assignments**

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course for instruction, preparation/studying, or course related activities, including but not limited to internships, labs, and clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus.

These course requirements and assignments conform to the details found from University Syllabus Policy S16-9 at <u>http://www.sjsu.edu/senate/docs/S16-9.pdf</u>.

*Research Assignment:* Students will prepare a paper on a selected project, program, or portfolio management process group, knowledge area, or performance domain in an organization of their choice. The final paper should be between 5,000 and 7,500 words, 12 point, 1.5 spaced, and should:

- 1. Begin with an executive summary.
- 2. Introduce your topic.
- 3. Describe the current practice in the organization.
- 4. Review at least ten sources that address the selected process group, knowledge area, or performance domain. These should include sources from the required and optional supplemental reading lists plus other relevant professional sources and academic research.
- 5. Evaluate the organization's practices in the light of the reviewed sources.
- 6. Propose steps that the organization could take to improve its practices.
- 7. Explain the anticipated results that the organization can expect from improving its practices.
- 8. Provide the reference for each source that you cited.

. The assignment is broken into the following steps, each due before class begins on that day:

- 1. Submit the topic and organization for approval (October 24).
- 2. Submit an intended list of sources relating to the topic (October 31).
- 3. Submit a draft paper (November 21).
- 4. Submit the final paper (December 12).

Students must schedule a 30-minute meeting with the instructor to get feedback on the draft paper. Scheduling should be done using the SJSU Google calendar. Find a free time on my calendar at least 48 hours ahead, and send an invitation.

5. In-Class Presentation: Students will deliver a summary of the paper (using a PowerPoint presentation) on December 12, in an oral presentation of no more than ten (10) minutes, followed by a question/answer session.

*Reading Reflections/In-Class Participation*: Students will also be assigned chapters in the reading list. Students will write brief reviews of each week's readings, with each review being between 300 and 500 words, 12 point, 1.5 spaced, in the student's own words. Reviews should provide:

- 1. A summary of the readings.
- 2. The student's analysis of, and reaction to, the reading.

Points will be deducted for:

- Not having the two sections, with a heading for each section.
- Not using your own words.
- Writing fewer than 300 words.

Each student will also provide an example that illustrates the week's topic, for discussion, in a discussion page that will be set up in Canvas.

#### **Grading Information**

The course assignments will be weighted as follows:

Task	
(P/F = "Pass/Fail" grading)	% of Course Grade
Initial survey (P/F)	2%
Weekly examples for	16% (up to 18%
discussion (2% per week, P/F)	with extra credit)
Online test	4%
Reading reflections (4% per	24%
week, P/F with conditions)	
Research paper topic and	2%
organization (P/F)	
Reading list (P/F)	2%
Draft research paper (P/F with	10%
conditions)	
Final research paper	30%
Final powerpoint	10%

#### **Determination of Grades**

- All assignments except the test, final research paper, and final powerpoint will be graded pass/fail.
- Students may omit one example for discussion and two reading reflections and still achieve 100% credit. Extra credit will be given for completing more than the minimum number of weekly examples for discussion.
- Late assignments will not be accepted for full credit unless students have a compelling reason, for example illness or family emergency. A grade reduction of 1% of the course grade will be applied to reading reflections and the draft research paper for every day or part-day that the assignment is late. A grade reduction of 3% of the course grade will be applied to the final research paper for every day or part-day that the paper is late. No credit will be given for late surveys, discussion questions, research paper topics, test, or final powerpoints. All assignments may be submitted early.

Percentage	Grade
94% and above	А
93% to 90%	A-
89% to 87%	B+
86% to 84%	В
83% to 80%	B-
79% to 77%	C+
76% to 73%	С
72% to 70%	C-
69% to 67%	D+
66% to 63%	D
62% to 60%	D-
below 60%	F

### **Classroom Protocol for the Lucas College Graduate School of Business**

http://www.sjsu.edu/cob/Students/policies/index.html

#### **University Policies**

Per <u>University Policy S16-9</u> (http://www.sjsu.edu/senate/docs/S16-9.pdf), information relevant to all courses, such as academic integrity, accommodations, dropping and adding, consent for recording of class, etc. is available on Office of Graduate and Undergraduate Programs' <u>Syllabus Information web page</u> at <u>http://www.sjsu.edu/gup/syllabusinfo/</u>". Make sure to visit this page, review, and be familiar with these university policies and resources.

#### Lucas College and Graduate School of Business Mission

We are the institution of opportunity in Silicon Valley, educating future leaders through experiential learning and character development in a global business community and by conducting research that contributes to business theory, practice and education.

## **Course Schedule**

As a portion of each class period will be devoted to discussion of the readings, the reading reflections and discussion questions for the assigned readings must be posted to Canvas by 8AM on class meeting days.

*Note*: This schedule is subject to change with at least one week notice via email. The instructor will confirm at the end of each class the topic and assignments for the next class. Topics may be re-arranged to focus first on the students' greatest interests and facilitate early preparation of the draft paper.

*Guest speakers*: This class may have a guest speaker for the first portion (approximately 60 minutes) of each class who will discuss the topic for that class.

Date	Class Topics, Activities, Readings, & Assignments
Monday, October 10	Pre-reading:
	Chapter 1, PMI. 2017d. A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition. Project Management Institute, Newtown Square, PA.
	Chapter 1, 2017a. <i>The Standard for Project Management</i> . ANSI/PMI 99-001-2017. Published as Part 2 of PMI. 2017d.
	<ul> <li>Assignments: <ol> <li>Respond to a survey on Canvas before 8 am on the day of the class.</li> <li>Submit an example for discussion before 8 am on the day of the class, on the week's discussion page in Canvas.</li> </ol> </li> <li>Topics: Why use standards? What is a project? What is a transportation project? What is the difference between project management, program management, and portfolio management? What are industry sectors? Class activities: <ul> <li>Self introductions: Name. Employment and academic background. Why you are taking this course.</li> <li>Review syllabus, expectations, assignments, final project and presentations: Weekly assignments (see Canvas). Final project. Presentations. <ul> <li>Review the standards development process and why this class uses standards.</li> <li>Discuss project management certification.</li> <li>Consider the standard definitions of a project.</li> <li>Discuss projects as production systems.</li> <li>Define a "transportation project."</li> <li>Review the distinction between project management, program management, and portfolio management.</li> <li>Discuss the examples given on the discussion page.</li> <li>Discuss industry sectors.</li> <li>Take-aways.</li> </ul></li></ul></li></ul>
Monday,	• Take-aways. Pre-reading:
October 17	Chapter 13, PMI. 2017d. A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition. Project Management Institute, Newtown Square, PA.

Date	Class Topics, Activities, Readings, & Assignments
	PMI. 2017b. <i>The Standard for Program Management – Third Edition</i> . ANSI/PMI 08-002-2017. Project Management Institute, Newtown Square, PA.
	<ul> <li>Assignments:</li> <li>Submit reading reflection.</li> <li>Submit an example for discussion before 8 am on the day of the class, on the</li> </ul>
	week's discussion page in Canvas. <b>Topics:</b> Program Management and Stakeholder Management
	Class activities:
	• Guest speaker: Monica Tanner "Stakeholder Engagement on VTA's BART Phase II".
	<ul> <li>Discuss different perspectives on programs:</li> <li>a. Standard three-phase lifecycle.</li> <li>b. Five "performance domains"</li> </ul>
	<ul> <li>b. Five "performance domains".</li> <li>c. "program activities" and their relationship to project "knowledge areas".</li> <li>d. Morris, IPMA, and European perspective on "Management of Projects"</li> <li>e. Addition of stakeholder management as a PMBOK® knowledge area in 2012/2013.</li> </ul>
	<ul> <li>Blampied research on external activities, building on "Management of Projects".</li> <li>Discuss the examples given on the discussion page.</li> <li>Take-aways.</li> </ul>
Monday,	Pre-reading:
October 24	<i>The Standard for Portfolio Management – Third Edition.</i> ANSI/PMI 08-003-2017. Project Management Institute, Newtown Square, PA.
	Assignments:
	<ul> <li>Submit reading reflection.</li> <li>Submit an example for discussion before 8 am on the day of the class, on the week's discussion page in Canvas.</li> </ul>
	• Submit your research paper topic and organization for approval.
	<b>Topics:</b> Portfolio management.
	Organizational project management.
	<b>Class activities:</b> Guest speaker: Jim Davis, retired Caltrans Chief Deputy Director, leadership coach, and
	former project management instructor.
	Discuss Portfolio Performance Domains:
	Strategic Alignment and Governance
	Capacity Management     A Resource inclusticity
	<ul><li>a. Resource inelasticity</li><li>b. Resource levelling</li></ul>
	c. Obstacle removal

Date	Class Topics, Activities, Readings, & Assignments
	<ul> <li>Capability management: Recruiting (capability assessment &amp; building new capabilities); Training (building new capabilities and sustaining existing capabilities); Plant and equipment acquisition</li> <li>Stakeholder engagement</li> <li>Value management</li> <li>Risk management</li> <li>Portfolio lifecycle: Execution and optimization         <ul> <li>a. Little's Law</li> <li>b. Theory of Constraints</li> <li>c. Variability                 <ul> <li>i. Single-piece flow</li> <li>ii. Single-second exchange of die</li> <li>iii. California Incident command system</li> <li>v. Buffers</li> <li>d. Lean Production</li> <li>e. Central role of schedule management</li> </ul> </li> </ul> </li> <li>Roles and responsibilities of:         <ul> <li>a. Executives and managers</li> <li>b. Project managers and work package mangers</li> <li>Discuss the examples given on the discussion page. Take-aways.</li> </ul> </li> </ul>
Monday, October 31	<ul> <li>Pre-reading:</li> <li>Chapters 2 and 5, PMI. 2017d. A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition. Project Management Institute, Newtown Square, PA.</li> <li>PMI. 2019a. Practice Standard for Work Breakdown Structures – Second Edition. Project</li> </ul>
	<ul> <li>Management Institute, Newtown Square, PA.</li> <li>Assignments: <ul> <li>Submit a list of at least 10 sources relating to your chosen final paper topic, that you intend to read for the final paper.</li> <li>Submit reading reflection.</li> <li>Submit an example for discussion before 8 am on the day of the class, on the week's discussion page in Canvas.</li> </ul> </li> <li>Topics: <ul> <li>Project lifecycle and scope management.</li> </ul> </li> <li>Class activities: <ul> <li>Guest speaker: Michael Hass, "Quality Control on the East Bay BRT".</li> <li>Discuss project charter.</li> <li>Discuss project vs. product scope.</li> <li>Discuss project lifecycle.</li> <li>Discuss the five standard project management process groups.</li> <li>Discuss Work Breakdown Structures.</li> <li>Discuss Work packages.</li> </ul> </li> </ul>

Date	Class Topics, Activities, Readings, & Assignments
	<ul> <li>Discuss Activities vs WBS.</li> <li>Discuss the concept of Control Account Manager, Functional Manager, or Resource Manager.</li> <li>Discuss progressive elaboration / rolling wave planning.</li> <li>Discuss reliable promises.</li> <li>Discuss project management concepts.</li> <li>Discuss the examples given on the discussion page</li> <li>Take-aways.</li> </ul>
Monday, November 7	Pre-reading:Chapter 7, PMI. 2017d. A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition. Project Management Institute, Newtown Square, PA.
	PMI. 2011a. <i>Practice Standard for Project Estimating</i> . Project Management Institute, Newtown Square, PA.
	<ul> <li>Assignments: <ul> <li>Complete online test.</li> <li>Submit reading reflection.</li> <li>Submit an example for discussion before 8 am on the day of the class, on the week's discussion page in Canvas.</li> </ul> </li> <li>Topics: <ul> <li>Cost management and estimating.</li> <li>Class activities:</li> <li>Guest speaker: Marissa Brown, " Stakeholder Management and the Caltrans District 4 State Route 9 Saratoga Creek Bridge Project".</li> <li>Discuss methods of estimating: <ul> <li>Analogous.</li> <li>Parametric.</li> <li>Bottom-up.</li> </ul> </li> <li>Discuss three point estimating.</li> <li>Discuss three point estimating.</li> <li>Discuss the examples given on the discussion page.</li> <li>Take-aways.</li> </ul> </li> </ul>
Monday, November 14	Pre-reading:Chapter 6, PMI. 2017d. A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition. Project Management Institute, Newtown Square, PA.
	<ul> <li>PMI. 2011b. <i>Practice Standard for Scheduling – Second Edition</i>. Project Management Institute, Newtown Square, PA.</li> <li>Assignments: <ul> <li>Submit reading reflection.</li> <li>Submit an example for discussion before 8 am on the day of the class, on the week's discussion page in Canvas.</li> </ul> </li> <li>Topics:</li> </ul>

Date	<b>Class Topics, Activities, Readings, &amp; Assignments</b>
	<ul> <li>Project schedule management.</li> <li>Class activities: <ul> <li>Guest Speaker: Laurie Berman, retired Director of Caltrans and former project manager.</li> <li>Discuss activity sequencing and network diagrams.</li> <li>Discuss schedule development methods include: <ul> <li>Critical path method.</li> <li>Resource optimization.</li> <li>Leveling.</li> <li>Smoothing.</li> <li>Compression.</li> <li>Time-cost trade-off.</li> <li>Vertical production / linear / location based / line of balance scheduling</li> <li>Agile</li> <li>Lean scheduling / Last Planner®</li> </ul> </li> </ul></li></ul>
	<ul><li>Discuss the examples given on the discussion page</li><li>Take-aways.</li></ul>
Monday, November 21	Pre-reading:Chapters 9 and 12, PMI. 2017d. A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition. Project Management Institute, Newtown Square, PA.
	<ul> <li>Assignments: <ul> <li>Submit reading reflection.</li> <li>Submit an example for discussion before 8 am on the day of the class, on the week's discussion page in Canvas.</li> <li>Submit draft research paper.</li> </ul> </li> <li>Topics: <ul> <li>Human resources. Project organization. Reliable promises. Procurement. Contracting methods. Artificial intelligence and projects.</li> <li>Class activities: <ul> <li>Guest Speaker: Matthew Starkey "Portfolio Governance at the Presidio Trust".</li> <li>Discuss the theory of make-or-buy based on transaction cost economics and the work of Ronald Coase, Herbert Simon, Douglass North, and Oliver Williamson.</li> <li>Discuss how organizations, and particularly public organizations, get their in-house human resources to make products, based on the writing of Chester Barnard.</li> <li>Discuss production in civil service, based on the writings of James Q. Wilson, Philip Selznick, and Woodrow Wilson.</li> <li>Discuss organizational change (Douglass North and John Kotter)</li> <li>Discuss Williamson's "efficient governance" model for choosing the best make-orbuy and contracting approach.</li> <li>Discuss the application of Williamson's model using Caltrans and Highways England as case studies.</li> </ul> </li> </ul></li></ul>

Date	Class Topics, Activities, Readings, & Assignments
	<ul> <li>Suggest Elinor Ostrom's work on the commons as possible alternative to Williamson when considering government contracting.</li> <li>Discuss the examples given on the discussion page</li> <li>Take-aways.</li> </ul>
Monday,	Pre-reading:
November 28	Chapters 8 and 10, PMI. 2017d. A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition. Project Management Institute, Newtown Square, PA.
	<ul> <li>Assignments: <ul> <li>Submit reading reflection.</li> <li>Submit an example for discussion before 8 am on the day of the class, on the week's discussion page in Canvas.</li> </ul> </li> <li>Topics: <ul> <li>Quality. Built-in quality. ISO 9000. Communications.</li> </ul> </li> </ul>
	<ul> <li>Class activities:</li> <li>Guest Speaker: Roberto Ayala "Public-Private Partnerships: Examining the Procurement Approach in Denver".</li> <li>QUALITY</li> </ul>
	<ul> <li>a. Discuss the two types of quality:</li> <li>i. "Quality of Design", also referred to as "Built-in quality" which is quality of the work which, in our case, refers to the project or program / work quality,</li> <li>ii. "Quality of Conformance" also referred to as "Quality by Inspection" which is quality of the product or output of the work.</li> </ul>
	<ul> <li>b. Distinguish between grade and quality.</li> <li>c. Note that there is an expectation that Quality of Design ("Built-in Quality") will remove or decrease the need for in Quality of Conformance ("Inspect-in Quality").</li> </ul>
	<ul> <li>d. Discuss and give examples of the three types of efficiency: Economy, Effectiveness, Productivity.</li> <li>e. Offer Choosing by Advantages as a preferred tool for alternatives analysis / decision making.</li> </ul>
	<ul> <li>COMMUNICATION         <ul> <li>a. Note that communication is discussed in depth in MSTM course 214, a required course for the degree.</li> <li>b. Discuss the fact that government communications may be confidential in the short term, but all except personnel matters will become public records.</li> </ul> </li> <li>Discuss the examples given on the discussion page.</li> <li>Take-aways.</li> </ul>
Monday,	Pre-reading:
December 5	Chapters 4 and 11, PMI. 2017d. A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition. Project Management Institute, Newtown Square, PA.
	Assignments: 1. Submit reading reflection.

Date	Class Topics, Activities, Readings, & Assignments
	<ol> <li>Submit an example for discussion before 8 am on the day of the class, on the week's discussion page in Canvas.</li> <li>Topics:         <ul> <li>Risk. Integration.</li> <li>Class activities:</li> <li>Guest Speaker: Meredith Park "Lessons from the UK: The Failed Public Private</li> <li>Partnership Program for London Underground's Modernization".</li> <li>Discuss Risk management in projects, programs, and portfolios:</li></ul></li></ol>
	Take-aways.
Mondays, December 12 and 19	Pre-reading:         None.         Assignments:         1. Submit final research paper.         2. Submit final powerpoint.         Class activities:         Presentations.