Op Mgt 550CD
PROJECT MANAGEMENT
Spring Quarter, 2019

Instructor: Ted Klastorin
Office: 551 Paccar Hall
Office Hours: Mon/Wed: 2:00 – 3:30 pm
Thursday: 4:30 – 6:00 pm
and by appointment
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Course Location & Schedule:
Class Time: Thursday: 6:00 – 9:20 pm
Location: Paccar 291

Course textbook:
K&M: Managing Complex Projects: A Risk Management Approach by T. Klastorin
and G. Mitchell (2020)*

* textbook is provided online via Canvas

Course Description:
In recent years, there has been a rapidly increasing emphasis on project management
concepts and expertise. Organizations increasingly recognize that introducing new products,
processes, or programs in a timely and cost effective manner requires professional project
management (PM). This is especially important given recent research indicating that companies
that miss visible milestones (e.g., the announced introduction of a new product) are likely to
suffer significant loss in market value for a considerable period following the
delay. In addition, an increasing number of managers recognize that project management
offers powerful tools to help them change and redirect an organization's strategic direction(s)
and redefine core competencies.

This course examines the management of complex projects and methodologies that can help
managers increase the likelihood of successfully completing these projects. Throughout
the course, we will emphasize the two most important parts of a project manager’s job: (1)
planning a project, and (2) managing project risk. Other topics will include project
initiation and selection (and timing), requirements and scope planning, scheduling, budgeting, forming
and managing project teams, and monitoring and control. In addition, we will discuss
commercial PM software products, and the relationship between these products and the
requirements of managing risky complex projects in today’s economic environment.

Course Prerequisites: MBA core or equivalent.
**Course communication:** All course materials (e.g., problem sets, mid-quarter exam, Excel spreadsheets, powerpoint slides, and the textbook) will be available on Canvas. Please check the Canvas site frequently as I will post notes, comments, and updates on a regular basis. All assignments will be submitted via Canvas.

**Project Management Software**
All students enrolled in ISOM courses are eligible to access Microsoft’s “Imagine” site and download software from that site at no cost. You should receive an email from Bill Burrows indicating how to register and activate your account. Once your account is active, you will be able to download *Project 2013* and *Project 2016* as well as other Microsoft software.

In addition, we will be using numerous Excel spreadsheets throughout the course to illustrate the types of decisions and trade-offs that are faced by project managers. All Excel spreadsheets will be posted on Canvas.

**Problem Sets:** There will be three problem sets. Each problem set will be posted on Canvas. *Each problem set is to be completed and submitted individually.* No late problem sets will be accepted. Solutions to problem sets will be posted on Canvas following their due date.

**Case Studies:** Each study group should prepare a written analysis that responds to the discussion questions that accompany each case; this document must be submitted prior to the scheduled class discussion. While study groups will submit a single written analysis for this case, every class member is responsible for understanding the issues in the case and should be prepared to contribute to the class discussion.

**C. Columbus, Inc. Case Study:** The Columbus case study is the capstone project for this course. Each study team will prepare and present a proposal that responds to the RFP (Request for Proposal) described in the C. Columbus, Inc. case study posted on Canvas. In addition to an oral presentation to the project’s clients (the king and queen of Spain), each team should submit a written document with supporting details and analysis. Oral presentations will be strictly limited to a maximum of fifteen (15) minutes. This case will be graded on several dimensions, including how well you integrate the course concepts into your analysis and proposal.

**Attendance:** If you miss a class, please let me know so that I can help you with any missed materials. Remember that you are responsible for everything discussed in class (whether mentioned in the text or not).

**Incompletes:** Incompletes will only be considered in highly unusual conditions (such as serious illness). Any request for an Incomplete must be stated in writing and submitted before the last day in class. The statement should include a statement of class progress and reasons why the Incomplete is being requested.

**Mid-quarter Exam:** The course exam is open book, open notes; it will be posted on Canvas on May 15 and due on Thursday, May 23. No makeup exam will be given for any reason.
**Final Average and Grade:** Your course grade will be determined from performance on the mid-quarter exam, analyses of case studies, problem sets, and class participation (where quality—not quantity—counts). At the end of the course, I will ask you to confidentially rate the other members of your study group (to discourage the free rider problem); I will use these peer evaluations to adjust case study scores for individuals.

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<th><strong>Grading Policy</strong></th>
<th><strong>No. of Items</strong></th>
<th><strong>Max Points/Item</strong></th>
<th><strong>Max Total Points</strong></th>
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<tr>
<td>Mid-Quarter Exam</td>
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<tr>
<td>Case Studies</td>
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<td>Problem Sets</td>
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<td>Columbus case - proposal and presentation</td>
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<td>Class Participation</td>
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Your final grade will be based on the number of points you earn (from a maximum of 500 points as indicated in the following table).

**PMP Certification:** This course satisfies the 35 hours of PM coursework that is required to take the PMP (Professional Project Manager) certification examination offered by PMI (Project Management Institute). You must also complete an application demonstrating your experience in the project management field. I will be happy to assist with your application and will briefly discuss PMI and the certification exam in class. (Disclaimer: This class is not a PMP preparation course…)
Op Mgt 550CD Course Outline  
Spring, 2019

**Week 1: Thursday, April 4: Intro to Project Management (PM).**  
Topics: Why course is important; definition of projects; success/failure metrics; program versus project management; project trade-offs; risk management; Project Management Institute (PMI) and the PMP exam  
Reading: K&M: Chapter 1  
Reading: Dubner, Stephen. “Here’s Why All Your Projects Are Always Late—And What to Do About It” Freakonomics Radio Podcast (March 7, 2018)

**Week 2: Thursday, April 11: Project Initiation and Selection**  
Topics: aligning project selection and organizational strategy; simple numerical metrics; risk adjusted discount rates; the need for options thinking; How to time project initiation; ranking/scoring methods for evaluating project proposals; project portfolios  
Reading: K&M: Chapter 2  

**Week 3: Thursday, April 18:**  
**Defining a Project Plan**  
Topics: Elements of a project plan; identifying project requirements; planning to manage risks; Agile PM  
Reading: K&M: Chapter 3  
Assignment Due: Problem Set #1

**Defining Project Content**  
Topics: Defining tasks and estimating task durations and resource costs; work breakdown structures (WBS); Gantt charts  
Reading: K&M: Chapter 4
**Week 4: Thursday, April 25: Scheduling a Deterministic Project**
Topics: precedence networks; CPM; slacks (floats) defined; CPM linear programming model; Scheduling to max NPV; MS Project demonstrated
   
   **Reading:** K&M: Chapter 5
   
   **Assignment Due:** Problem Set #2

**Week 5: Thursday, May 2: Optimizing Project Trade-offs**
Topics: Project budgets and non-critical tasks; time-cost trade-off concepts and models; IT project example; Time-cost trade-off as a risk mitigation tool (vanAllen case); Brook’s Law in IT projects; Parallel versus sequential processing

   **Reading:** K&M: Chapter 6
   
   **Reading:** Pryne, E. “Strike slows downtown construction projects” The Seattle Times, July 3, 2008.

   **Assignment Due:** Applied Materials Case Study

**Week 6: Thursday, May 9: Planning Stochastic Projects**
Topics: Proactive versus reactive scheduling; Classic PERT model defined; Monte-Carlo simulation; cycles in projects; Monte-Carlo simulation; cycles in projects and probabilistic branching; risk pooling

   **Reading:** K&M: Chapter 7

   **Assignment Due:** Problem Set #3

**Week 7: Thursday, May 16: Resource Management**
Topics: introduction to resource leveling and resource allocation; rate-constrained resource allocation; critical chain methodology; Buffers, supply chain management, capacity constrained resource allocation

   **Reading:** K&M: Chapter 8
   

   **Assignment Due:** AirShip Technologies Case Study
Week 8: Thursday, May 23

Project Teams
Topics: Team member selection; optimal team size and trade-offs; worker behavior and team performance

Reading: K&M: Chapter 9
Reading: Richtel, M. “That Neurotic on the Team? Give Him Time” The New York Times (Feb 1, 2014)

Assessing Project Progress
Topics: Monitoring project progress; Earned value analysis (EVA/EVM); quality control

Reading: K&M: Chapter 11
Assignment Due: EXAM

Week 9: Thursday, May 30

Managing Decentralized Projects
Topics: Subcontracting parts of a project; contract types; defining an optimal/coordinating contract

Reading: K&M: Chapter 10
Reading: Packham, C and J. Regan. “Tesla Wins Giant Battery Contract in Australia, has 100-day deadline” Reuters Business News (July 6, 2017)

Guest Speaker (TBA)

Week 10: Thursday, June 6

Project Proposal Preparation and Presentations
Case due: Christopher Columbus, Inc.
(in-class presentation required by all study groups)

Managing multiple projects; maturity models
Topics: Managing multiple projects; conclusion and review