COLORADOSCHOOLOFMINES

Subject: Business – Management **Number:** EBGN 553
Course Title: PROJECT MANAGEMENT Section: A
Semester/Year: Fall 2016

Instructor: Mark B. Mondry, Teaching Associate Professor

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Office: 303.384.2359
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Office hours: Mon. & Wed.: 2:00pm - 4:00pm
Tuesday: Noon – 2:00pm
(Other office hours available by appointment)

Class meeting days/times: Mondays & Wednesdays, 12:00pm – 1:15pm

Class meeting location: Berthoud Hall, Room 209

Web Page/Blackboard link: Blackboard course site

Teaching Assistant (if applicable): TBD

Instructional activity: _3_ hours lecture   ___ hours lab   _3_ semester hours

Course designation: ___ Common Core   ___ Distributed Science or Engineering

___ Major requirement   _x_ Elective   ___ Other (please describe _____)

Course description from Bulletin:

Project management has evolved into a business process broadly used in organizations to accomplish goals and objectives through teams. This course covers the essential principles of traditional project management consistent with professional certification requirements (the Project Management Institute's PMP$^{®}$ certification) as well as an introduction to current agile project management methodologies. The traditional project management phases of project initiation, planning, execution, monitoring & control, and project closure are covered including related scheduling, estimating, risk assessment and various other analytical tools. Students will gain experience using Microsoft Project. Organizational structure and culture issues are analyzed to understand how they can impact project management success, and the concepts of project portfolios and project programs are applied from the organizational perspective. Agile project management methodologies are introduced, including adaptive and iterative processes, scrum, lean and other agile tools and techniques. By the end of the course, students will understand how traditional and agile project management approaches differ and in what situations each might be deployed.

The course is 3 credit hours. Prerequisites: Must be enrolled in the M.S. in Engineering and Technology Management (ETM) Program or by permission from the Instructor.

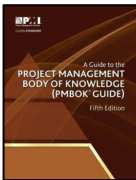**Textbook and/or other requirement materials:**

Required texts:
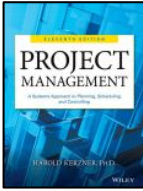
1. Kerzner, *Project Management: A Systems Approach to Planning, Scheduling and Controlling*, Eleventh Edition (2013) Wiley.
ISBN 978-1-118-02227-6 (also available as an e-book)

2. Highsmith, *Agile Project Management*, 2nd edition (2010) Addison Wesley.
ISBN 978-0321658395

Recommended for those students interested in the PMP® professional certification (not required):

3. *A Guide to The Project Management Body of Knowledge (PMBOK Guide),* 5th edition (2013) Project Management Institute.
ISBN 978-1935589679. This book is available in .pdf to all student members of PMI.

Other required supplemental information:

Students are required to access the Mines Blackboard site for this course frequently, usually several times a week. The course Blackboard site will contain supplemental reading materials, other course content, student blogs and discussions, and links to Internet based resources. Students will also be required to perform certain exercises using Microsoft Project 2010 or 2013. A licensed copy of Microsoft Project software is loaded onto the computer lab computers in Engineering Hall for student use. Mines students may also download MS Project via the Mines Dreamspark subscription access at: http://ccit.mines.edu/CCIT-Dreamspark

Student learning outcomes: At the conclusion of the class students will…

1. Identify the role and responsibilities of a Project Manager and the project team.
2. Identify project stakeholders, and define project stakeholder needs and processes for capturing information on those needs.
3. Define the five process groups of traditional project management as defined by the Project management Institute (PMI).
4. Prepare a preliminary project scope document.
5. Create a work breakdown structure for a proposed project.
6. Develop a project schedule, and identify the critical path for the project.
7. Identify project resource needs, and prepare an estimated cost baseline for a set of tasks within a project.
8. Perform a basic project risk assessment.
9. Identify and analyze project scope changes, and identify resulting risk profile changes for the project.
10. Describe agile project management and how it differs from traditional project management.
11. Define the envision, speculate, explore, and the adapt and close phases of agile project management.

Brief list of topics covered:

1. Defining a project, a program, a portfolio, the scope triangle and creep.
2. The five process groups in project management (as defined in the PMBOK).
3. How to scope a project.
4. How to plan a project and apply various planning tools.

5. Project pricing and estimating, and cost control methods.
6. How to launch a project, including managing project management teams.
7. How to monitor and control a project.
8. How to close a project.
9. Project management complexity and uncertainty, and quality management.
10. Traditional project management vs. Agile project management models.
11. Managing crisis projects.
12. The project office.
13. Applying value over constraints in agile project management.
14. Leading teams over tasks in agile.
15. How agile applies adaptation and iteration.
16. Scaling and governing agile projects.

Policy on academic integrity/misconduct: The Colorado School of Mines affirms the principle that all individuals associated with the Mines academic community have a responsibility for establishing, maintaining an fostering an understanding and appreciation for academic integrity. In broad terms, this implies protecting the environment of mutual trust within which scholarly exchange occurs, supporting the ability of the faculty to fairly and effectively evaluate every student's academic achievements, and giving credence to the university's educational mission, its scholarly objectives and the substance of the degrees it awards. The protection of academic integrity requires there to be clear and consistent standards, as well as confrontation and sanctions when individuals violate those standards. The Colorado School of Mines desires an environment free of any and all forms of academic misconduct and expects students to act with integrity at all times.

Academic misconduct is the intentional act of fraud, in which an individual seeks to claim credit for the work and efforts of another without authorization, or uses unauthorized materials or fabricated information in any academic exercise. Student Academic Misconduct arises when a student violates the principle of academic integrity. Such behavior erodes mutual trust, distorts the fair evaluation of academic achievements, violates the ethical code of behavior upon which education and scholarship rest, and undermines the credibility of the university. Because of the serious institutional and individual ramifications, student misconduct arising from violations of academic integrity is not tolerated at Mines. If a student is found to have engaged in such misconduct sanctions such as change of a grade, loss of institutional privileges, or academic suspension or dismissal may be imposed.

The complete policy is available at inside.mines.edu online.

Grading Procedures: Each student's course grade will be based on the following components:

(a) Traditional PM – Quiz #1	10%
(b) Traditional PM – Quiz #2	10%
(c) Traditional PM - Exam	25%
(d) Agile PM – Quiz #1	20%
(e) Agile In-Class Team Exercise	5%
(f) Blog Posts and Comments:	10%
(g) In-class Discussion Participation:	10%
(h) MS Project Tutorial Exercise	10%
Total:	**100%**

Note: The Instructor reserves the right to revise the grading procedures if the course components change during the semester. Any change to the grading procedure shall be announced in advance of any change.

Description of Each Graded Component:

Exams – There will be a cumulative exam on traditional project management (TPM). This exam will be open-book & open notes, but will require you to use critical thinking and apply what you have learned in class to short essay type questions.

Quizzes – The quizzes will be short (approx. 15-20 mins) scheduled (i.e., not a surprise), closed book, in class, and will require that you be caught up with the reading.

Agile Team Exercise – There will be agile team exercises conducted in-class near the end of the semester. More information on the exercises will be provided in our class sessions

Blog Posts and Comments – In some weeks, you will have a blog assignment. The assignment for the week will have two parts: (1) your blog post and (2) a comment on another students post. Each part is due at the beginning of the class assigned in the *Class Schedule and Assignments*. Your post must be a minimum of 50 words, and be responsive the weekly topic/question/exercise posted. Your comment must be a minimum of 25 words and add value to the discussion. You will post your blog and comment in the "Blog Assignments" section of our Blackboard course site. Students should be respectful of each other's blog positions and contributions as would be required in a professional workplace. Your blog input should be original to you (i.e. no plagiarism). Taking contrary or alternative positions is encouraged to broaden the dialogue.

In-class Participation – Each class session will have assigned reading to be completed in advance of the class session (see *Class Schedule and Assignments*). It is essential that you keep up with the reading and come prepared for class. The instructor may randomly call on students to participate in the discussion of topics from the assigned reading. Additionally, some classes may have assigned exercises that will be part of our class discussion but do not need to be turned-in. These exercises are listed as "Prep" in the "Assignments Due" column for that class session (note: any exercises to be turned-in are called "Deliverables"). Your participation in class discussions will be graded based on the quality of your participation, i.e., whether you can reflect on the content from the assigned reading in a way that shows you read the material. Students should seek to contribute in the class discussions at a *minimum of once a week*.

Microsoft (MS) Project Tutorial Exercise – You will use MS Project to complete a tutorial exercise. The tutorial will be posted on our Blackboard site several weeks before the due date. On the due date, you will be required to upload a MS Project file and a .pdf of a printed report. These exercises are due on the date indicated on the then-current Class Schedule and Assignments table at the beginning of class. Late submissions will receive a zero grade. There are many free tutorials available on-line for learning the basics of MS Project and some information will be posted on our Blackboard course site. Students can use the MS Project software loaded on one or more of the computers in the Engineering Hall computer lab located on the second floor.

Coursework Return Policy: Coursework submitted by a student in this course that is part of the course grade (i.e., subject to graded evaluation by the instructor and considered as a component of the overall course grade) will be graded by the instructor and returned to the student as promptly as reasonably possible, usually within two (2) weeks from the date of submission. If a submission is at the end of the semester (i.e., part of a final exam, final project or deliverable submitted on or near finals week), a student will receive a grade evaluation only as part of the overall course grade and will not receive a return of the tangible coursework submission (paper, exam, etc.).

Absence Policy: Generally, students are expected to attend every class. Your participation in each class benefits each student in the class as we all learn from each other's contributions, experiences and ideas. It is this sharing of ideas and differing perspectives communicated by class discussions that separate the in-class experience from one that could be provided from merely reading the assigned materials. Therefore, excused or unexcused absences will reflect negatively on your in-class discussion/participation grade component. In the event that you anticipate not being able to attend a class session due to illness or a work related or personal obligation, you are expected to contact the instructor in advance by email or phone notifying of your expected absence. In the event of an unanticipated absence (i.e., emergency or unavoidable circumstances), please contact the instructor as soon as reasonably possible to communicate the nature of the absence. Absences that are reasonable (determined at the discretion of the instructor) will be deemed excused, all others will be deemed unexcused.

Homework: Your homework consists of the items in the "Assignments Due" column for each class session in the current *Class Schedule and Assignments* document for this course. Homework may include assigned reading, prep for class discussions, deliverables, and blog posts.

- Collaboration on Homework: Students are strongly encouraged to work in groups to complete homework and/or deliverables. However, when working in groups students are required to participate in group work activities and not to just copy others work and submit it as their own. If you do work with other students on a deliverable, you are required to list the students you worked with on your deliverable.

Class Schedule and Assignments: The Class Schedule and Assignments is attached and is available as a separate document that will be revised and updated during the course of the semester. The current version of that document will always be posted on our Blackboard course site.

Project Management
EBGN 553 – Fall 2016

Class Schedule and Assignments*
Version 1.0 (8.22.2016)

This schedule is subject to change during the semester by notice by the instructor. Please always refer to the latest version posted on our Blackboard course site.

Abbreviations:

BB = Blackboard EBGN 553 course site Weekly Content Folders content.
PM = Kerzner, *Project Management*, 11th ed., textbook
APM = Highsmith, *Agile Project Management, 2nd ed., textbook*

Week #	Class #	Date:	Topics:	Assignments Due:
Week 1	#1	Mon. 8/22	What is Project Management? - Course Syllabus, Expectations and Outcomes. - PM Professional Certs.	**None.**
	#2	Wed. 8/24	- Project Management Overview - The 5 Phases of Traditional Project Management ("TPM")	**Read:** PM chapter 1; Dorale Products Case (A) [in PM Appendix C starting on p. 1217]; and BB Week #1 Content folder. **Prep:** Dorale (A) questions 1, 3-5 (p. 1218) (be prepared to discuss generally in class).
Week 2	#3	Mon. 8/29	Project Management: History of Concepts and Methodologies.	**Read:** PM chapter 2 (note section 2.18 in particular); BB Week 2 Folder. **Blog:** Post your Week 2 Blog entry on Blackboard (under "Blog Assignments").
	#4	Wed. 8/31	Organizational Structures and Managing Projects - Why it Matters.	**Read:** PM chap. 3; BB Week 3 folder. **Prep:** PM chap problems (starting on p. 161) 3-1, 3-20, 3-25, 3-29, 3-38 (be prepared to discuss in class). **Blog:** Post a comment to another student's week 2 blog entry.
		Mon. 9/5	**Labor Day – No Class**	
Week 3	#5	Wed. 9/7	- Organizing and Staffing Project Teams and the Project Office. - The MS Project Tutorial Exercise (due on 10/3)	**Read:** PM chap. 4; and Dorale Case (I) (p.1225); BB Week 3 folder. Review week 2 blog entries/comments. **Prep:** Responses to Dorale Case (I) questions 1-2, and 5 -8 (pp. 1225-1226). **No Blog this week.**
Week 4	#6	Mon. 9/12	Management Functions - Teams, Authority and Decision Processes - Organizational Culture: - Netflix	**TPM QUIZ #1 (chaps 1-4: PMP questions, closed book)** **Read:** PM chap. 5; BB week 4 folder. **Prep:** Chap. 5 Problems 5-1; 5-8; and 5-19. **Blog:** Post your week 4 Blog entry.
	#7	Wed. 9/14	Managing Project Members - Time & Stress Management - Addressing Conflicts - Brainstorm Exercise	**Read:** PM chaps. 6 & 7; BB week 4 folder. **Prep:** Chap. Problem 7-14; Get ready to brainstorm! Work on MS Project Assignment (optional) **Blog:** Post a comment to another student's week 4 blog entry.
Week 5	#8	Mon. 9/19	The Project Sponsor The Planning Phase – Part I - The Work Breakdown Structure (WBS)	**Read:** PM section 10.1 (pp. 464-474), PM chapter 11 sections 11.1-11.14 (pp. 505-540); BB Week 5 folder. **Deliverable:** WBS Exercise (in class exercise). **No Blog this week.**

Week #	Class #	Date:	Topics:	Assignments Due:
Week 5 (cont.)	#9	Wed. 9/21	The Planning Phase – Part II - The Project Plan	**Read:** PM chap. 11 sections 11.15-11.35 (pp. 541-582); BB week 6 folder contents. **Prep:** Chap 11 problem #11-36 (p.589). Work on MS Project Assignment (optional)
Week 6	#10	Mon. 9/26	Network Scheduling - Finding the Critical Path	**Read:** PM chap 12; BB week 6 folder. **Prep:** Watch videos in week 6 folder. Work on MS Project Assignment (optional) **Blog:** Post your week 6 Blog entry.
	#11	Wed. 9/28	Pricing and Estimating for Projects.	**Read:** PM chap. 14; BB week 6 folder. **Prep:** Chap. 14 questions 14-13 (p. 733) and 14-16 (p. 734). Work on MS Project Assignment (optional) **Blog:** Post a comment to another student's week 6 blog entry.
Week 7	#12	Mon. 10/3	Trade-Off Analysis (Time, Cost, Scope/Performance)	**Deliverable: MS Project Tutorial Assignment Due at Beginning of Class (& upload on BB).** **Read:** PM chap. 16; BB week 7 folder. **Blog:** Post your week 7 blog entry.
	#13	Wed. 10/5	Risk Management	**Read:** PM chap. 17; BB week 7 folder. **Deliverable:** **Blog:** Post a comment to another student's week 7 blog entry.
Week 8	#14	Mon. 10/10	PM Contract Management Negotiation Exercise	**TPM Quiz #2 (PMP multiple-choice, chaps. 5, 10-12, 14, 16, 17)(closed book)** **Read:** PM chap. 19; BB week 8 folder. **No Blog this week**
	#15	Wed. 10/12	Quality Management - Discussion of QM tools in class	**Read:** PM chap. 20; BB week 8 folder
Week 9		Mon. 10/17	**Fall Break – No Class**	
	#16	Wed. 10/19	- Modern Developments in PM. The DIA Baggage Case VA Hospital in Denver	**Read:** PM chap. 21; BB week 9 folder (DIA Baggage Case, VA Hospital). **Blog:** No Blog this week.
Week 10	#17	Mon. 10/24	- Scope Changes - The Project Office - What to expect on the TPM exam	**Read:** PM chaps. 22 & 23; BB week 10 folder. **Note:** Do you have the APM book? **Prep:** KEMKO Case (p. 1094); Work on MS Project Assignment (optional) **Blog:** Post your week 10 blog entry.
	#18	Tues. 10/26	The Rise, Fall and Resurrection of Iridium: A Project Management Perspective.	**Read:** PM chap. 26 – **the Iridium Case.** **Prep:** Iridium Case for class discussion. **Blog:** Post a comment to another student's week 10 blog entry.
Week 11	#19	Mon. 10/31	**Traditional Project Management Exam**	**Exam will be open book, open notes.** **No Blog this week.**
	#20	Wed. 11/2	Agile Project Management: The Agile Revolution; Value over Constraints and Teams over Tasks.	**Read:** APM chapters 1, 2 & 3 **Prep:** Work on MS Project Assignment (optional)
Week 12	#21	Mon. 11/7	Agile PM: Adapting Over Conforming and the Agile Model.	**Read:** APM chapters 4 & 5; BB week 12 folder. **Blog:** Post your week 12 blog entry.
	#22	Wed. 11/9	Agile PM: The Envision Phase And the Speculate Phase	**Read:** APM chapters 6 & 7; BB week 13 folder. **Blog:** Post a comment to another student's week 12 blog entry.

Week #	Class #	Date:	Topics:	Assignments Due:
Week 13	#23	Mon. 11/14	Agile PM: Advanced Release Planning Agile PM: The Explore Phase - Iteration Planning & Monitoring	**Read:** APM chapters 8 & 9; BB week 13 Folder. **Blog:** Post your Week 13 blog entry.
	#24	Wed. 11/16	Agile PM: The Adapt & Close Phases Agile PM: Scaling Projects	**Read:** APM chapters 10 & 11; BB week 14 content folder. **Blog:** Post at least one comment to another students' week 13 entry.
Week 14	#25	Mon. 11/21	SCRUM – Methods, tools and techniques	**Quiz – Agile PM (at beginning of class)** **Read:** BB Week 14 content folder. **No Blog this week.**
		Wed. 11/23	**Thanksgiving Break**	**No Class – Enjoy!**
Week 15	#26	Mon. 11/28	Governing Agile Projects Measuring Agile Performance The Wikispeed case	**Read:** APM chapters 12 & 13; BB week 15 folder (the Wikispeed Case). **No Blog this week**
	#27	Wed. 11/30	Agile Project Exercise	In class exercise
Week 16	#28	Mon. 12/5	Agile Project Exercise	In class exercise **No Blog this week**
	#29	Wed. 12/7	Agile Project Exercise	In class exercise
Week 17			**FINALS WEEK**	**There is <u>NO final</u> for this class, but our Final Exam time will be a class discussion on PM**