

**Subject:** Business – Management **Number:** EBGN 553

Course Title: PROJECT MANAGEMENT Section: A

Semester/Year: Fall 2017

Instructor: Richard A. Hunt, Assistant Professor

Contact information: Engineering Hall, room 310

Office: 303.273.3925 rahunt@mines.edu

**Office hours:** Mon. 12:00 – 1:30 p.m.

Wed. 3:30 - 5:00 p.m. Or by appointment

Class meeting days/times: Mondays & Wednesdays, 2:00p.m. - 3:15p.m.

Class meeting location: Alderson Hall 352

Web Page/Canvas link: Canvas course site: https://elearning.mines.edu/courses/3078

Teaching Assistant (if applicable): TBD

Instructional activity: 3 hours lecture hours lab 3 semester hours

Course designation: \_X\_ Common Core \_\_\_\_ Distributed Science or Engineering

\_\_\_ Major requirement \_\_\_ 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*, 2<sup>nd</sup> edition (2010) Addison Wesley. ISBN 978-0321658395



# <u>NOT REQUIRED</u>. Recommended for those students interested in the PMP® professional certification):

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

# Other required supplemental information:

**CANVAS**: Students are required to access to the Mines Canvas site for this course frequently. The course Canvas site will contain supplemental reading materials and links to Internet based resources.

**MS Project**: 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. **Students are not required to purchase a license to Microsoft Project for this course**.

# 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.
- 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:

Total:	100%
(g) MS Project Tutorial Exercise	<u>5%</u>
(f) Class Contribution:	15%
(e) Assignments, In-Class Writings, etc.:	20%
(d) Agile PM – Exam	20%
(c) Traditional PM - Exam	25%
(b) Traditional PM – Quiz #2	10%
(a) Traditional PM – Quiz #1	5%

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

# **Description of Each Graded Component:**

<u>Exams</u> – There will be two exams, one on traditional project management (TPM) and one on agile project management (APM). Each exam will require you to use critical thinking and apply what you have learned in class. The exams will be open-book, open notes.

<u>Quizzes</u> – The quizzes will be short, scheduled, closed book, in class, and will require that you be caught up with the reading.

<u>Class Contribution</u> – Preparation questions are provided to enhance class discussion. Although they <u>will not</u> be handed in for grading (unless otherwise announced in advance in class), these questions are designed to give you "direction" in your preparation of the topic or case to be covered in class. Questions are posted in Canvas. You are encouraged to prepare and discuss in groups prior to coming to class to discuss the text and case material. It is expected that you have read everything assigned. It is especially valuable and appreciated when you come to class with questions about the readings. You will get more out of class when you bring these materials with you as I will be referring to specific pages and exhibits during the discussion. *Often, in-class writings and quizzes will be drawn directly from the Discussion Questions for each unit.* 

You will receive one of three grades every class day:

- 100% for value added comments. Student demonstrates his/her knowledge of the case study facts or textbook material at times relevant for the on-going discussion as well as maintaining personal responsibility for items listed above.
- 2. **80% for attending class,** Student maintains personal responsibility for items listed above, but elects to not contribute value added comments during discussions.

# 3. 0% for non-attendance

All connectivity (mobile phones, PDAs, pagers, and other electronic devices) must be stored away during class. Use of laptops in the class is a privilege, not a right. Laptops are to be used for class activities only. If you are seen surfing, chatting, e-mailing, etc., you will lose laptop privileges and receive a zero for class contribution for the day.

<u>Assignments and In-Class Writings</u> – A variety of individual and team assignments will be made throughout the semester. Some of these will be completed in-class while others will be completed prior to class. The purpose of these assignments is to reinforce the learning aims and to ensure that students remain current in the material, which is key to one's class contribution.

Microsoft (MS) Project Tutorial Exercise – You will use MS Project to complete a tutorial exercise. The tutorial will be posted on our Canvas 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 Canvas 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.

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 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.

**Individual Needs**: The Colorado School of Mines is committed to ensuring the full participation of all students in its programs, including students with disabilities. If you are registered with Disability Support Services (DSS) and I have received your letter of accommodations, please contact me at your earliest convenience so we can discuss your needs in this course. For questions or other inquiries regarding disabilities, I encourage you to visit disabilities.mines.edu for more information.