Subject: Business – Management  Number: EBGN 553/498

Course Title: PROJECT MANAGEMENT

Semester/Year: Fall 2020

Instructor:

David N. Culbreth, Professor of Practice

Contact information: Office: Engineering Hall #130
Office Phone: 303-273-3492
Cell: 720-394-2947
Email: dculbreth@mines.edu

Office hours: Monday: 9:00 – 12:00 noon
Tuesday: 3:30-5:30pm
Wednesday: 9:00 – 12:00 noon
Thursday: 3:30-5:30pm
Office hours are by appointment. Email me to setup a 30 min. meeting.

Class meeting days/times: Tuesday and Thursday, 2:00pm – 3:15pm.
Class meeting location: Remote

Teaching Assistant: N/A

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). 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 programs are applied from the organizational perspective. Leadership principals and soft skills such as communication and conflict management are covered. Agile project management methodologies are introduced, including adaptive and iterative processes, scrum, 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.
Textbooks and/or other requirement materials:

ISBN 978-1-119-14822-7 (Hardback)

Harvard Business Publishing – various Case Study documents

Other required supplemental information:

**CANVAS**: Students are required to access 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, 2013, or 2016. 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. Create a work breakdown structure for a proposed project
2. Define the five process groups of traditional project management as defined by the Project management Institute (PMI)
3. Investigate the role and responsibilities of a Project Manager and stakeholders
4. Compare the tools and techniques for small, medium and large projects.
5. Interpret your own leadership abilities and how to grow as a leader
6. Create a project statement of work document with schedule, and financial analysis
7. Formulate the project issues, scope changes, and the resulting risk profile changes for a project.
8. Perform a basic project risk assessment
9. Assess Agile project management and how it differs from traditional project management.
10. Recognize the golden rules of change management
11. Create a business case and financial justification for a large project.

Brief list of topics covered:

- Defining a project, a program, a portfolio.
- The five process phases in project management (as defined in the PMBOK).
- How to scope a project.
- How to plan a project and apply various planning tools.
- Project pricing and estimating, and cost control methods.
- How to launch a project and manage project teams.
- How to monitor and control a project through closure
- How to apply change management, and financial costing and justification
- Project management of complexity, uncertainty, and quality management.
- Traditional project management vs. Agile project management models.
- Managing crisis projects.
- Learning from real world project management cases
- How to write a professional business case
- Prioritizing value over constraints in Agile project management.
- How Agile applies adaptation, iteration, scaling and governing.
Grading Procedures: Each student’s course grade will be based on the following components:

<table>
<thead>
<tr>
<th>Grading Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>Exercises</td>
<td>80</td>
</tr>
<tr>
<td>Leadership – Self Reflection Paper</td>
<td>20</td>
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<tr>
<td>Personal Project</td>
<td>60</td>
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<tr>
<td>Mid-term Exam</td>
<td>150</td>
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<tr>
<td>Case studies - Quizzes</td>
<td>75</td>
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<tr>
<td>RFID Implementation SOW</td>
<td>100</td>
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<tr>
<td>Project Simulations</td>
<td>35</td>
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<tr>
<td>Large Project (395 points)</td>
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<tr>
<td>• Mid-Point Business Case Presentation</td>
<td>50</td>
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<tr>
<td>• Business Case Document</td>
<td>150</td>
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<tr>
<td>• Presentation</td>
<td>75</td>
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<tr>
<td>• MS Project Schedule</td>
<td>125</td>
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<tr>
<td>Attendance/Participation</td>
<td>100</td>
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<tr>
<td>Total Points</td>
<td>1000</td>
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GRADES

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<tr>
<th>Points</th>
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<tbody>
<tr>
<td>934-1000</td>
<td>A</td>
<td>734-766</td>
<td>C</td>
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<tr>
<td>900-933</td>
<td>A-</td>
<td>700-733</td>
<td>C-</td>
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<tr>
<td>867-899</td>
<td>B+</td>
<td>667-699</td>
<td>D+</td>
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<tr>
<td>834-866</td>
<td>B</td>
<td>634-666</td>
<td>D</td>
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<tr>
<td>800-833</td>
<td>B-</td>
<td>600-633</td>
<td>D-</td>
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<tr>
<td>767-799</td>
<td>C+</td>
<td>&lt;600</td>
<td>F</td>
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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:

Exams – There will be a mid-term exam for this class, and no final exam. It is a class on project management and, therefore, you will be graded on doing individual and group projects.

Attendance/Participation – Attendance will be taken in each class and will account for 50% of this segment grade. Participation - it is especially valuable and appreciated when you come to class with questions about the readings. Your interest and participation in class will be the primary factors for this grade. Your class participation will be worth 50% of this segment.

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 may lose laptop privileges and receive a negative mark for class contribution.

Case Studies, readings – Quizzes - You are encouraged to prepare prior to coming to class to discuss the text and case material. It is expected that you have read everything assigned. Short Quizzes on case studies will be located in Canvas which must be taken before class begins for the assigned day.

Exercises – A variety of individual and team exercises 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. Students can use the MS Project software loaded on one or more of the computers in the Engineering Hall computer lab located on the first or second floor or acquire a copy from the IT department at no charge.

**Late assignments** – assignments are due by the start of class of their due date. A 10% penalty will be assessed for assignments turned in before 12:00 midnight that day. An additional 10% will be taken off for each additional day that it is late.

**Diversity and Inclusion:**
At Colorado School of Mines, we understand that a diverse and inclusive learning environment inspires creativity and innovation, which are essential to the engineering process. We also know that in order to address current and emerging national and global challenges, it is important to learn with and from people who have different backgrounds, thoughts, and experiences.

Our students represent every state in the nation and more than 90 countries around the world, and we continue to make progress in the areas of diversity and inclusion by providing Diversity and Inclusion programs and services to support these efforts.

**Disability Support Services:**
The Colorado School of Mines is committed to ensuring the full participation of all students in its programs, including students with disabilities. If you anticipate or experience any barriers to learning in this course, please feel welcome to discuss your concerns with me. Students with disabilities may also wish to contact Disability Support Services (DSS) to discuss options to removing barriers in this course, including how to register and request official accommodations. Please visit their website at disabilities.mines.edu for contact and additional information. If you have already been approved for accommodations through DSS, please meet with me at your earliest convenience so we can discuss your needs in this course.

**Accessibility within Canvas:**
Read the Accessibility Statement from Canvas to see how the learning management system at the Colorado School of Mines is committed to providing a system that is usable by everyone. The Canvas platform was built using the most modern HTML and CSS technologies, and is committed to W3C's Web Accessibility Initiative and Section 508 guidelines.

**Learning Resources:**
Learning resources provided via the course site can only be used for academic purpose and in accordance with copyright law and Mines copyright policy. Abuse of resources such as excessive downloads may lead to the termination of your access.
Discrimination, Harassment, and Title IX:
All learning opportunities at Mines, including this course, require a safe environment for everyone to be productive and able to share and learn without fear of discrimination or harassment. Mines’ core values of respect, diversity, compassion, and collaboration will be honored in this course, and the standards in this class are the same as those expected in any professional work environment. (More information can be found here.) Discrimination or harassment of any type will not be tolerated. As a participant in this course, we expect you to respect your instructor and your classmates. As your instructor, it is my responsibility to foster a learning environment that supports diversity of thoughts, perspectives and experiences, and honors your identities. To help accomplish this:

- Course rosters are provided to the instructor with the student’s legal name. I will honor your request to address you by a preferred name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records.
- If something is said or done in this course (by anyone, including myself) that made you or others feel uncomfortable, or if your performance in the course is being impacted by your experiences outside of the course, please report it to:
  - Me (if you are comfortable doing so)
  - Wellness Center - Counseling (https://www.mines.edu/counseling-center/)
  - Speak Up (https://www.mines.edu/speak-up/) - Anonymous Option

In this course, we will cultivate a community that supports survivors, prevents interpersonal violence, and promotes a harassment-free environment. Title IX and Colorado State law protects individuals from discrimination based on sex and gender in educational programs and activities. Mines takes this obligation seriously and is committed to providing a campus community free from gender and sex-based discrimination. Discrimination, including sexual harassment, sexual violence, dating violence, domestic violence, and stalking, is prohibited and will not be tolerated within the Mines campus community. If these issues have affected you or someone you know, you can access the appropriate resources here: http://www.mines.edu/title-ix/. You can also contact the Mines Title IX Coordinator, Camille Torres, at 303.384.2124 or titleix@mines.edu for more information.

It’s on us, all of the Mines community, to engineer a culture of respect.

CARE @ Mines:
If you feel overwhelmed, anxious, depressed, distressed, mentally or physically unhealthy, or concerned about your wellbeing overall, there are resources both on- and off-campus available to you. If you need assistance, please ask for help form a trusted faculty or staff member, fellow student, or any of the resources below. As a community of care, we can help one another get through difficult times. If you need help, reach out. If you are concerned for another student, offer assistance and/or ask for help on their behalf. Students seeking resources for themselves or others should visit care.mines.edu.

Additional suggestions for referrals for support, depending on comfort level and needs include:
• CARE at Mines: care.mines.edu for various resources and options, or to submit an online “CARE report” about someone you’re concerned about, or email care@mines.edu
• CASA - https://www.mines.edu/casa/ for academic advising, tutoring, academic support, and academic workshops
• Counseling Center – https://www.mines.edu/counseling-center/ or students may call 303-273-3377 to make an appointment. There are also online resources for students on the website. Located in the Wellness Center 2nd floor. Located at 1770 Elm St. (photo below)
• Health Center - https://www.mines.edu/student-health/ or students may call 303-273-3381 for appointment. Located in Wellness Center 1st floor.
• Colorado Crisis Services - For crisis support 24 hrs/7 days, either by phone, text, or in person, Colorado Crisis Services is a great confidential resource, available to anyone. http://coloradocrisisservices.org, 1-844-493-8255, or text “TALK” to 38255. Walk-in location addresses are posted on the website.
• Food and/or Housing - Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the Dean of Students for support. Furthermore, please notify your professor if you are comfortable in doing so. This will enable your professor to provide resources that may be available.

All of these options are available for free for students. The Counseling Center, Health Center, and Colorado Crisis Services are confidential resources. The Counseling Center will also make referrals to off-campus counselors, if preferred.

In an emergency, you should call 911, and they will dispatch a Mines or Golden PD officer to assist.

**Absence Policy:**
The Student Absences webpage outlines CSM's policy regarding student absences. It contains information and documents to obtain excused absences.

**Note:** All absences that are not documented as excused absences are considered unexcused absences. Faculty members may deny a student the opportunity to make up some or all of the work missed due to unexcused absence(s). However, the faculty members do have the discretion to grant a student permission to make up any missed academic work for an unexcused absence. The faculty member may consider the student's class performance, as well as their attendance, in the decision.

In the case of an absence, the student is responsible for determining what work was missed and for putting forth a good faith effort to review the material on their own.

**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 can be found in the Mines' Policy Library.