CU EMEN 4030
Project Management Systems

Introduction to Project Management Systems Course and PM Professional Update

(Lecture 1-1)

Instructor: Patricia McDonald MBA, PMP, SAPM

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Be Boulder.

Engineering Management Program

UNIVERSITY OF COLORADO BOULDER

Patricia McDonald

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Performed various business roles in Federal Government, Aerospace, Banking, Information Technology and Telecommunications industry. Managed multimillion dollar projects in these industries. Responsible for resources and budgets on US and Global projects including Europe, Asia and the Americas. Developed project management processes, participated on IBM Project Management Certification Board, performed project quality reviews and presented key project management concepts at IBM conferences.

PROFESSIONAL CERTIFICATION
Project Management Professional (PMP), Active member in Denver Mile-Hi Chapter
Stanford Certified Project Manager -Advanced Project Management
IBM Certified Executive Project Manager
Help Desk Institute Manager Certification
ITIL IT Service Management Foundation Certification
Master's Certificate in Project Management-George Washington University

EDUCATION
Southern Illinois University at Edwardsville **Master Business Administration**
University of Missouri-St. Louis **Bachelor of Science in Business-Accounting**

Introduction to Project Management

- Why have a career in project management?
- PM profession key skill requirements
- 5 reasons engineers need to develop PM skills

Introduction to PMI®

Project Management Institute (PMI®)

Founded 1969 - uses “A Guide to the Project Management Body of Knowledge (PMBOK® Guide) ” 6th Edition

960,000+ Project Management Professionals (PMP®) world-wide in 212 countries

Plus 40,000+ Certified Associate Project Managers (CAPM®)

Focus on the future skills and techniques

Emerging Trends in Project Management

- New technologies
- Pace of change
- Increased project complexity
- Changing demographics and global projects
- More uncertainty
- Employee expectations

Course Expectations

What you can expect from this class:

1. Learn a common project management language
2. Required education contact hours toward PMI exam eligibility
3. Real-world examples and Global experiences
4. Work in project teams (5 members)
5. Learn to develop project documents
6. Updates on Job Opportunities and the PM Profession

Course Description

- **Combines:**
  - Lecture and Discussion
  - Textbook pre-reading, homework, and quizzes
  - Team exercises (Project Control Book)
  - Team Case Study and real-world examples

- **Required textbook (Hardcopy or ebook)**

Effective Project Management: Traditional, Agile, Extreme, Hybrid (**Eighth**) Edition) by Robert K. Wysocki ISBN 978-1-119-56280-1 at the CU book store

Grading Information

Grading Criteria: Total points for the course equal 100 as shown below:

Grade Category	Points Avail.	Description / Comments
Individual Quizzes (8 at 4 points each)	**32**	9 Quizzes offered (drop 1 lowest grade)
Individual Homework and Discussion Posts (10 at 4 points each)	**40**	3 Homework assignments and 7 required Discussion Posts
Individual Project Control Book (PCB) (2 submissions at 8 points each)	**16**	2 PCB inputs per student as acting project manager on rotational bases (1 for 1st half of semester and 1 for 2nd half)
Team assignments (3 at 4 points each)	**12**	3 assignments for Team grade
TOTAL POINTS AVAILABLE	**100**	

Grading Information

Scale: **Grades based on % of total points earned (will be posted in Canvas)**

Letter Grade	Point Range
A	94-100%
A-	90-<94%
B+	87-<90%
B	83-<87%
B-	80-<83%
C+	77-<80%
C	73-<77%
C-	70-<73%
D+	67-<70%

1) **Homework assignments and Quizzes are Open-book & must be completed independently (not shared)**
2) **All assignments must be uploaded to the proper Canvas folder by the due date and time or point reductions will be applied.**
3) **Each team member will play the role of acting project manager at different times during class and prepare team assignment results.**

Syllabus Content

Lecture # (week)

Date

Topics/Learning Objective

Assignments

Assignment due dates are posted in Canvas

Primary source for templates is Canvas Assignments or Canvas Modules for most class assignments

Templates are to be used as a guide for assignments. Include your project specific information and template changes to fit your project detail.

Questions to Ponder

- How will you make a difference and “Change the World” with Engineering and Technology project management?
- What do you expect to be your biggest project management challenge based on emerging business trends?
- Review the significant opportunities at www.linkedin.com/jobs for technical and engineering project management positions in Denver/Boulder, USA and Globally

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What is a Project?

What is ProjectManagement?

(Lecture 1-2)

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Definition of Project?

"Temporary endeavor undertaken to create a unique product, service, or result."

- **<u>Characteristics include:</u>**
  - Has a definite beginning and end date
  - Creates a unique product, service, or result
  - Should have clearly defined goals and objectives
  - Should meet *<u>approved</u>* customer requirements

Text book Definition of a Project

"A project is a sequence of unique, complex, and connected activities having one goal or purpose and that must be completed by a specific time, within budget, and according to specification."

Pg. 4

Text book Improved Definition

"A project is a sequence of finite dependent activities whose successful completion results in the delivery of the expected business value that validated doing the project."

Pg. 7

Project Selection Process Examples

How are projects chosen?

- **Business need**, e.g., reduce cost, increase revenue, expand services, new product or meet regulatory requirements (e.g., OSHA, ISO, SOX, FDA, ITAR etc.)
- **To fix a problem**
  - Unreliable equipment (frequent failures)
  - Quality of service or products not meeting standards
  - Client is dissatisfied with features or function of a product
  - Mistakes being made by people providing services

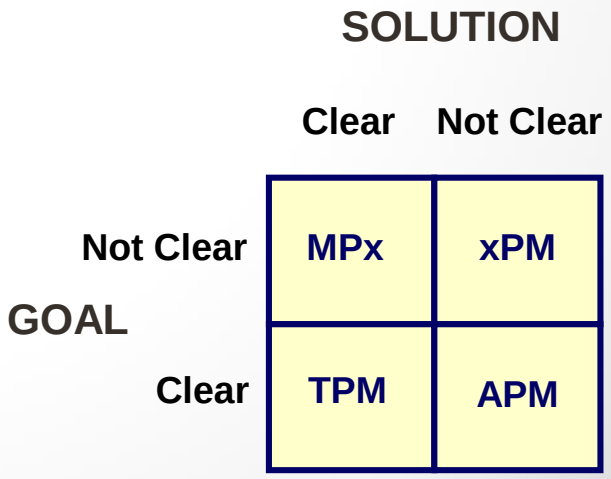
Project Management Life Cycle

TPM Linear and Incremental models

APM Iterative and Adaptive models

xPM Extreme models

MPx Extreme models



What are Constraints?

"Balancing competing demands for scope, quality, schedule (time), budget (cost), resources, risk, etc."

Original view

Triple Constraints

Alternate view

Questions to Ponder

- Compare and contrast the definitions of projects presented in this presentation
- Apply the scope triangle to the following scenarios and consider the changes required to maintain a stable triangle:
  - A vendor is contracted to complete a concrete patio in a backyard. They have experienced 2 weeks of freezing temperatures and snow
  - A Federal Government Agency was just advised of appropriation (funding) reduction for all current projects
  - A cell phone customer has requested new features on their phone

Homework

Read Chapter 1 and 2 in the Textbook

Post Reply to Discussion #1

Complete Quiz #1

Key Concepts-Chapter 1

- Defining a project
- An intuitive view of the project landscape
- Defining a program
- Defining a portfolio
- The enterprise level
- Understanding the scope triangle
- The importance of classifying projects
- The contemporary project environment

Key Concepts-Chapter 2

- Understanding the fundamentals of project management
- Challenges to effective project management
- Managing the creeps
- What are requirements – really?
- Introducing project management life cycles
- The project landscape
- Traditional Project Management (TPM)
- Agile Project Management (APM)
- Extreme Project Management (xPM)
- Emertxe Project Management (MPx)
- Choosing the best-fit PMLC model