

PROJECT MANAGEMENT

MODULE 1 – Winter 2023



**WE ARE
HUMBER**

AGENDA

- **Welcome and Introductions**
- **Course overview / weekly topics / evaluations**
- **Introduction to Project Management**
- **Next class**

Course Objective

This course covers both waterfall and agile methodologies of project management including utilization of scheduling, evaluation, risk assessment and communication tools in preparation for their final capstone project. Focus areas of this course include both classical/waterfall and agile development as a reflection of the fast-paced nature of the cloud computing industry.

Instructor Contact

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Please Note:

- *Mode of communication for all course related matters is via course messages in Blackboard.*
- *Meeting outside class hours can be facilitated by appointment – send me a Course Message in BB and we can set up a BB / Collaborate meeting*

CLASS ROLL CALL!

- **Where you are from (city or country)**
- **Where are you currently living?**
- **Your favourite hobby, interest or pastime! (ie. what do you do to have fun!)**

About you! In the Discussion Board...

- In the Discussion Board, please tell the class a little bit about yourself!
- In BB / Discussions / “Class Introductions”
 - Please create a new thread with your name to post a brief introduction about yourself.
 - **Please provide the following information:**
 1. Your name and where you are from
 2. What you most want to learn from this course
 3. A picture or image you want to share with your classmates (optional)
 4. Any other information you would like to share as part of your introduction

Evaluation Criteria Detail

Evaluation	Weight
Mid Term	15%
Final Exam	25%
Lab Experiments (3 - 5)	10%
Team Contract	5%
System Analysis /Preliminary Design	15%
Project Proposal Report	25%
Project Presentation	5%
Total	100%

- **REVIEW CRITICAL PATH**

Class Norms / Protocol

- Start on time and return from breaks - on time
- Be *here* when you're here
 - Devices off or on vibrate please
 - If you're texting, you're not paying attention
- Please ask questions – that are courteous and supportive to the discussion
- Don't interrupt others - listen for possibilities in the material being discussed
- No side discussions please
- Be positive...we're all here to learn
- Have fun

GROUP DISCUSSION

In your view, what does Project Management mean?
How do YOU define projects?

Definitions

Project

- According to the PMBOK® Guide—the definition of a project is “**a temporary endeavor undertaken to create a unique project service or result.**” Projects are temporary and close down on the completion of the work they were chartered to deliver.
- All projects have a beginning and an end. They have a team, a budget, a schedule and a set of expectations the team needs to meet. Each project is unique and differs from routine operations—the ongoing activities of an organization—because projects reach a conclusion once the goal is achieved.

Project Management

- Project management is the use of specific knowledge, skills, tools and techniques to deliver something of value.

History of Project Management

- People have worked on projects for centuries
- Modern concept of project management began with the Manhattan Project, which the U.S. military led to develop the atomic bomb in World War II. The Manhattan Project lasted about three years and cost almost \$2 billion in 1946.
- In 1917, Henry Gantt developed the famous Gantt chart for scheduling work in factories. A **Gantt chart** is a standard format for displaying project schedule information by listing project activities and their corresponding start and finish dates in a calendar format.
- During the Cold War years of the 1950s and 60s, the military continued to be key in refining several project management techniques
- These diagrams helped managers model the relationships among project tasks, which allowed them to create schedules that were more realistic. ► The concept of determining relationships among tasks is essential in helping to improve project scheduling. This concept allows you to find and monitor the **critical path** the longest path through a network diagram that determines the earliest completion of a project.

Project Management Standards

The **Project Management Institute (PMI)** is an international professional society for project managers founded in 1969

- ▶ Professional certification is an important factor in recognizing and ensuring quality in a profession. PMI provides several certifications - including **Project Management Professional (PMP)**
- ▶ Like in all professions, making ethical decisions is an important part of our personal and professional lives because it generates trust and respect with other people.
- ▶ PMI
Project Management Institute: <http://www.pmi.org/>
CAPM, PMP and other professional standards

Key Project Management Skills

- Application knowledge
 - Industry group
 - Technical specialty
 - Managerial area
- Understanding the project environment
 - Cultural, social, political, international, physical
- Management knowledge and skills
- Interpersonal skills
 - Communication, influence, leadership, motivation, negotiation and problem solving

Project Management in Corporations

In the 1990s, many companies began creating project management offices to help them handle the increasing number and complexity of projects.

A **Project Management Office (PMO)** is an organizational group responsible for coordinating the project management function throughout an organization.

There are different ways to structure a PMO, and they can have various roles and responsibilities. Below are possible goals of a PMO:

- ▶ Collect, organize, and integrate project data for the entire organization.
- ▶ Develop and maintain templates for project documents.
- ▶ Develop or coordinate training in various project management topics.
- ▶ Develop and provide a formal career path for project managers.
- ▶ Provide project management consulting services.
- ▶ Provide a structure to house project managers while they are acting in those roles or are between projects.

Group work

Random Breakout Rooms:

In small groups, try to identify the **LARGEST** project each of you have been involved with.

You do not have to have been the project manager—if not, what was your role? (team member, volunteer, purchaser, ??)

Discuss how the follow topics for your project :

- Unique

- Temporary

- How did you know it was complete?

- What was the criteria for success?

Project Completion and Success

Completion:

- Objective is achieved
- Time limit is reached
- Objective is abandoned

Successful

- Traditionally: on time, within budget and delivers the promised scope
- More effective measure: satisfied customer

Project Success

**Customer Requirements
satisfied/exceeded**

**Completed within allocated
time frame**

**Completed within allocated
budget**

Accepted by the customer



Project Failure

Scope Creep

Poor Requirements Gathering

**Unrealistic planning and
scheduling**

Lack of resources

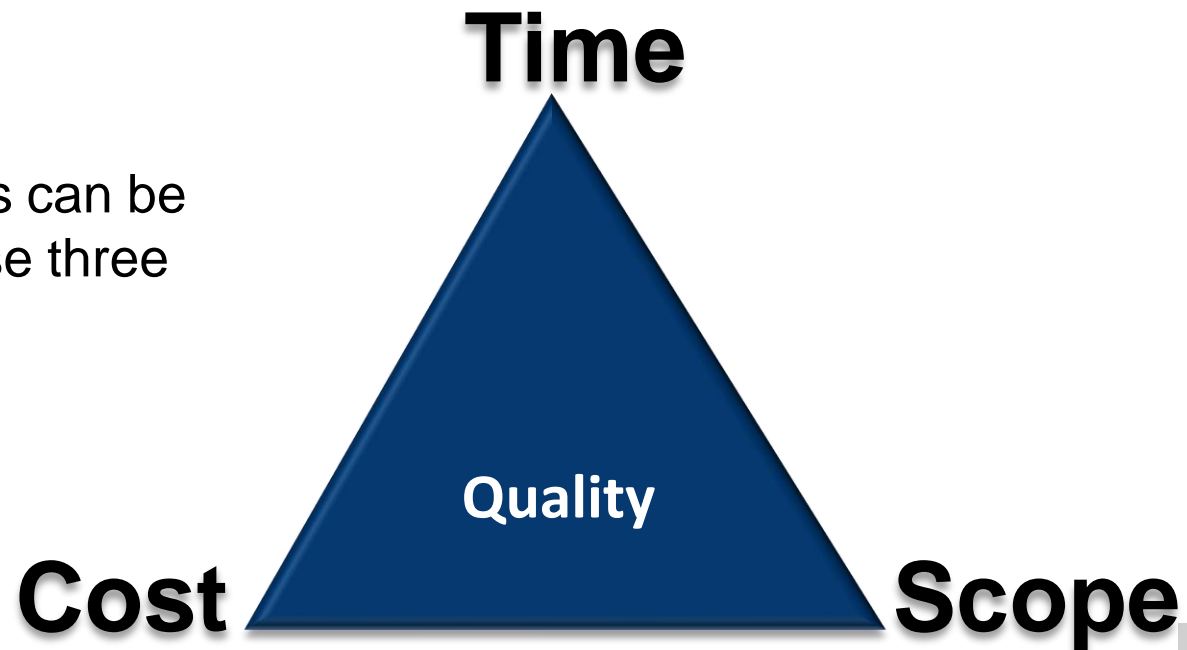


Project Constraints

- Cost
- Scope
- Quality
- Risk
- Resources
- Time

Triple Constraint

- All the constraints can be grouped into these three



Managing the Triple Constraint

Only 2 of the 3 constraints can be fixed

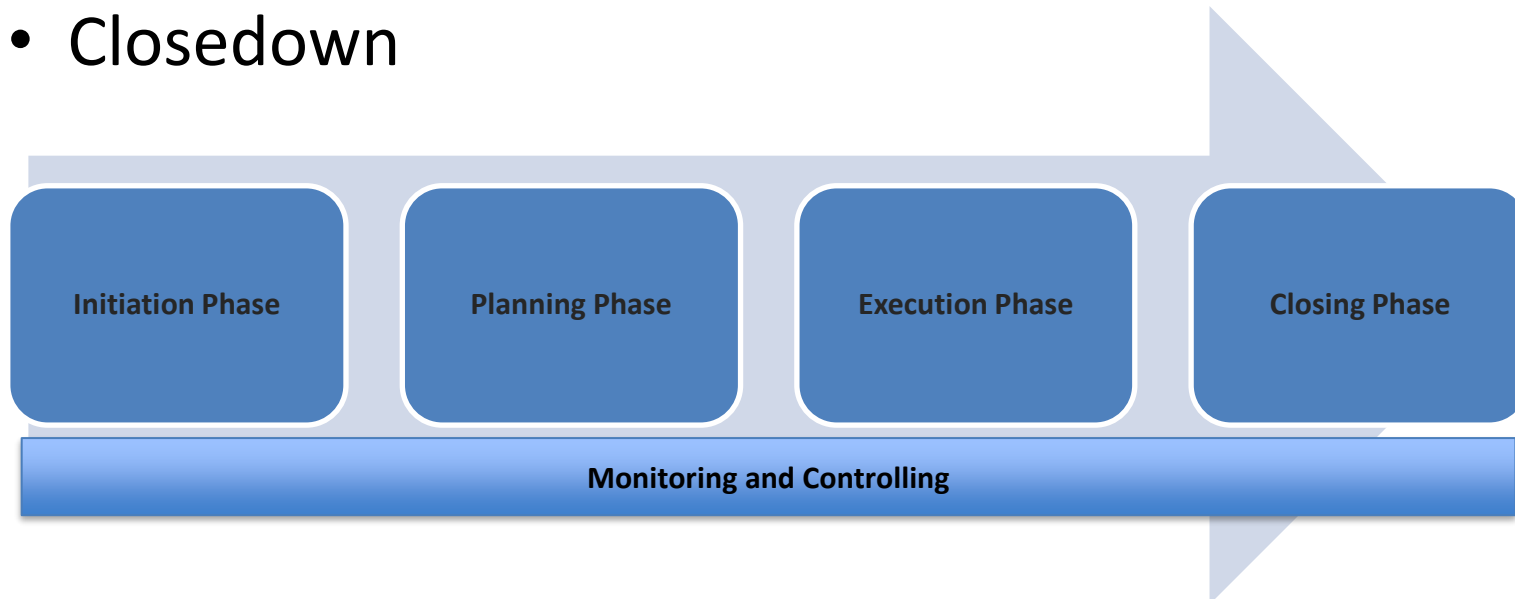
Relationship of the triple constraints:

- Increased **Scope** = increased time + increased cost
- Tight **Time** = increased costs + reduced scope
- Tight **Budget** = increased time + reduced scope.

The Project Life Cycle

Standard phases of the Project lifecycle

- Initiation
- Planning
- Execution
- Monitoring and Controlling (throughout lifecycle)
- Closedown



Project Initiation Phase

- Project sponsor is identified
- Scope and deliverables are defined
 - Relationship to organizational goals is key
- Budget is approved (may be a phase approval/release)
- Broad statements are made about risks, approach, timelines
- Stakeholders are identified
- Project Manager is assigned
- At end of phase, approved project charter is the approval to proceed to the planning phase

Project Planning Phase

- Deliverables are clearly defined
- Based on the deliverables, a work breakdown structure or WBS defines the “work packages”
- The work packages are used to develop a schedule
- Plans are made for management of stakeholders, communication, quality, costs, risks, procurement, resources including human resources
- Project requirements are documented
- Project is Baselined (scope, budget, schedule)
- Project is approved to begin execution (build) phase

Project Execution Phase

- Procurements take place
- Project solution/deliverables work is underway
- Communication to stakeholders is an important ongoing activity (Status Reporting / Steering Committee)
- The solution/product is built
- The built solution/deliverables are tested
- The solution/product is implemented/deployed/delivered
- Project is approved to begin closedown phase

Project Monitoring and Controlling

- Project is actively monitored, and progress is tracked and reported
- Performance against baseline is tracked and reported
- Changes managed via a formal change request process
- Risks/issues are actively managed
- Stakeholder engagement is executed - Communication to stakeholders is an important ongoing activity
- Monitoring and controlling activities occur throughout the lifecycle of the project

Project Closedown Phase

- Final Reporting
- Closing out procurements—final payments
- Identify lessons learned
- Celebrate

NEXT WEEK:

- Project Feasibility
- Identifying Roles & Assigning Responsibilities
- Stakeholders
- SWOT Analysis
- System Architecture

THANK YOU.



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