# PROJECT MANAGEMENT

TRMT 415
WEEK 4

# Outcomes for Week 4

1. Finalize content delivery for the Planning Phase
2. Explore the final two stages of a project
3. Assign and review requires for our first case study

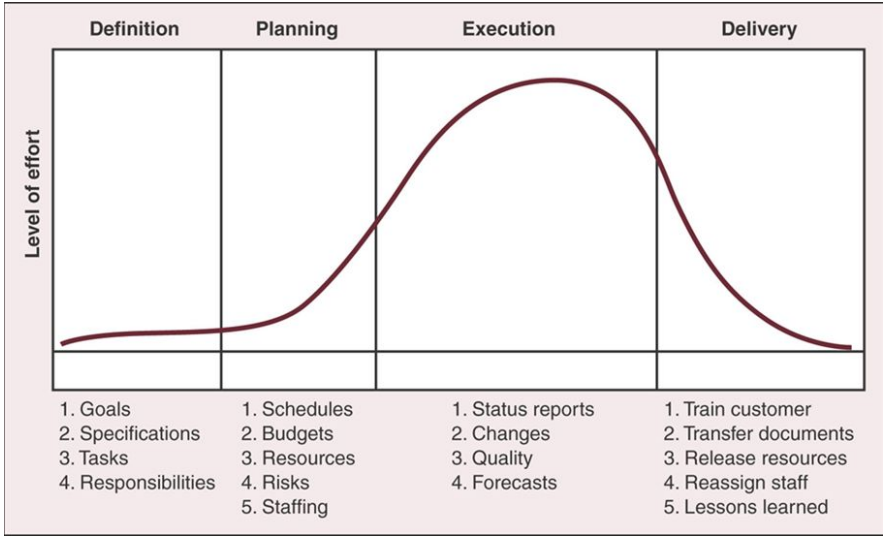
# Class Discussion

- Assignment of Case 1 & SBAR Discussion
- **Question:**
  - ***In thinking about weeks 1-4 of TRMT 415, if you were the Project Manager for BAE Systems, what might you have done differently in the project initiation and planning phases? If nothing, explain.***
- Deadline Discussion
- Pre-Mortem

# Project Management Recap
# Weeks 1,2,3

# Let's Recap Weeks 1, 2 & 3

- A project life cycle typically has 4 major phases:
  - Initiation
  - Planning
  - Implementation
    - Monitor/Controls
  - Closure



# Project Life Cycle: Initiation Phase

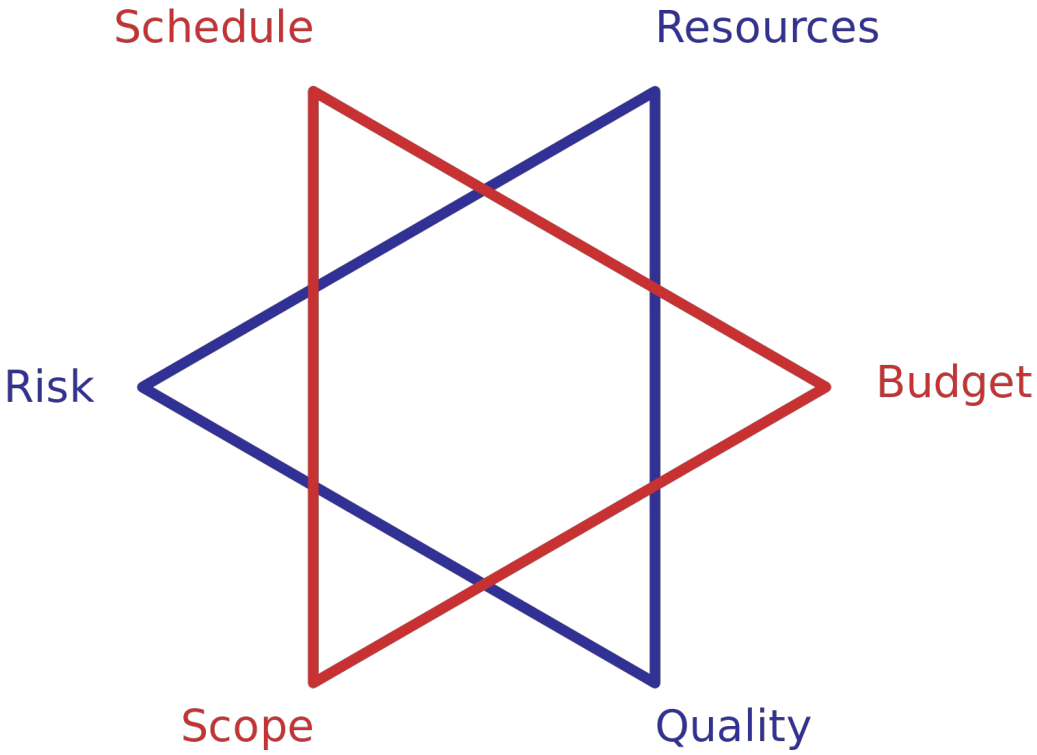
- The first phase explores the project concept.
- Scope is defined during this phase.
- Feasibility studies are made in order to identify if there is a business need and justification to pursue the project.
- Project charter is developed for approval.
- This is the phase that the project team is assembled and the project manager is identified.

# Project Life Cycle:  Initiation Phase

**Complex project needs coordination of:**

- Multiple people
- Multiple resources (labs, equipment, etc.)
- Multiple tasks – some must precede others
- Multiple decision points – approvals
- Phased expenditure of funds
- Matching of people/resources to tasks

# Managing Constraints



# Initiation Phase: Critical Takeaways

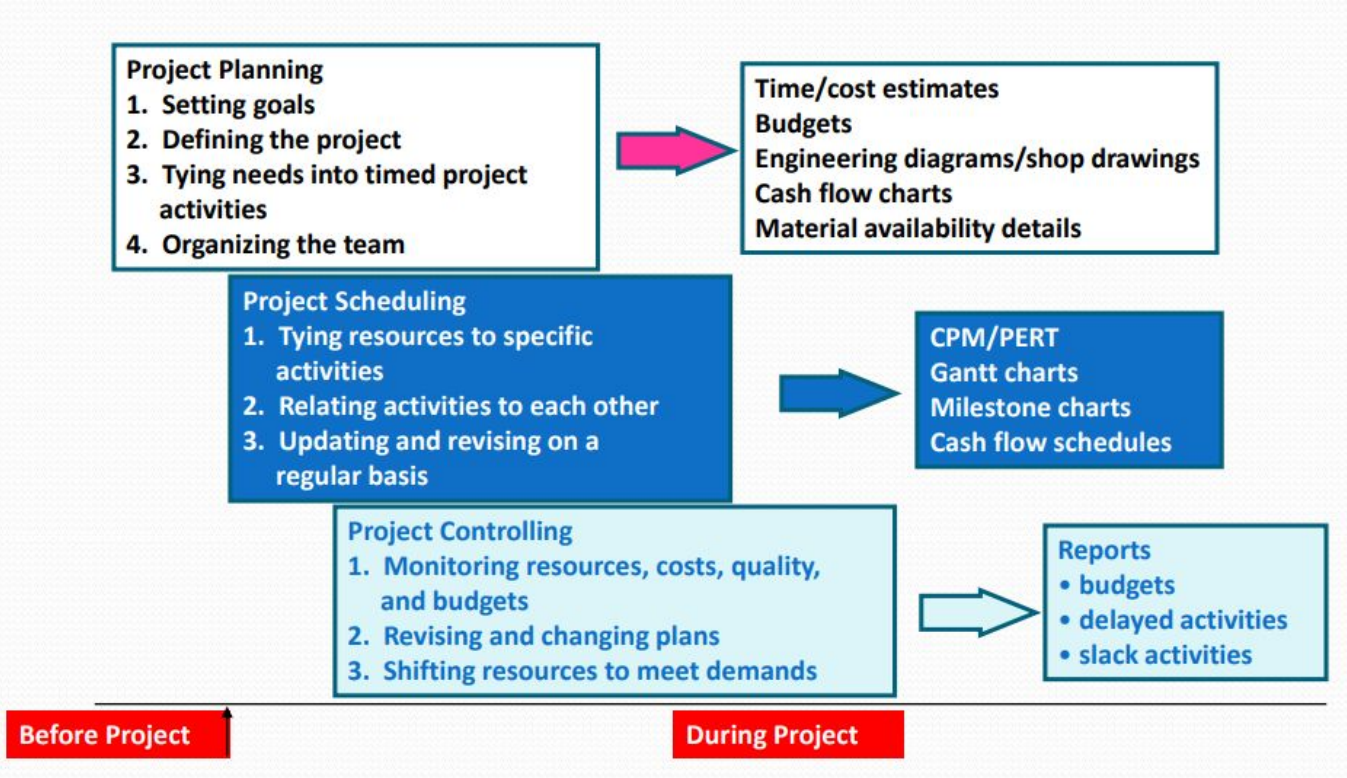
- **Keys to Phase 1**
  - **Clarity and Alignment on the Project**
    - What does success look like?
    - What are the expected deliverables required by stakeholders?
    - Establish a communication channel to manage scope
  - **Clarity and Alignment People**
    - Roles
    - Accountabilities
    - Communication Projects
    - Clarity and Alignment Agreements and/or Project Charters
  - **Risk Management**
    - Critical thinking of the risks that will impact the project planning phase
    - Structured assessment and strategy development

# Planning Phase

# Project Success....

- **Project Management Success Factors**
    - Stakeholder involvement
    - Executive management support
    - Clear statement of requirements
    - Proper planning
    - Realistic expectations
    - Smaller project milestones
    - Competent staff
    - Ownership
    - Clear vision and objectives
    - Hard working and focused staff

# Planning Phase



# Project Life Cycle: Planning Phase

- Step 1: Recognizing the need
  - Listen to the customer's needs. Dissatisfaction with an existing situation/product? Needs to accomplish new functionality? What is the ultimate purpose of the project?
- Step 2: Defining the problem
  - Translate needs to a problem statement:
    - Objectives – A quantifiable set of performance expectations

# Project Life Cycle:  Planning Phase

- Step 3: Planning the project
  - How do we do it? How do we organize ourselves? How do we get from here to there?
    - WBS
    - Project management and controls
- Step 4: Gathering information
  - Solutions to similar problems?
  - Background research? Patents?
  - This could be an empty set for some problems

# Project Life Cycle:  Planning Phase

- Step 5: Conceptualizing alternative approaches
  - “Concept generation”
  - Generate wide range of design options
  - Suspend judgment, anything goes, let creativity run wild
- Step 6: Evaluating the alternatives
  - Use analysis to quantify expected performance of design options
  - Predict cost of each alternative

# Project Life Cycle:  Planning Phase

- Step 7: Selecting the best alternative
  - Develop criteria to select “best” alternative (must match customer’s needs and input)
  - Create a formal selection process (decision matrix)
- Step 8: Communicating the design
- Step 9: Implementing the preferred design
  - Final (detailed) design
  - Construction and test

# Planning Phase:
# Tools for Managers

# Common Tools for Project Planning


- Work Breakdown Structure (WBS)
- Critical Path Method (CPM)
- Program Evaluation & Review Technique (PERT)
- Gannt Chart
- Logical Framework Analysis (LFA)

# Planning Phase:  Work Breakdown Structure

- A “System” (and the design activities that go with it) is “broken down” into sub-systems.
- The breakdown is arbitrary, yet it must follow some logic when it comes to the design activities
- The general criterion is to select sub-systems with clearly defined interfaces (tracking concern – most problems come from “unmatched” interface issues)
- The resulting set of sub-systems define a set of design activities or “Work Breakdown Structure” (WBS)

# Planning Phase:  WBS


- Must be clear and simple (tree structure)
- Must follow the structure of major sub-systems in a logical way
- Once created it cannot change for the duration of the project (yet it needs some flexibility to accommodate the unexpected)

# WBS Example

- Level 1 “Prepare and eat a meal”
- Level 2 Break it down
    - Preparation
        - Boil soup
        - Boil rice
        - Boil peas
        - Brown chicken
        - Prepare sauce
        - Bake chicken, rice and sauce
        - Open wine and let it breathe
    - Eating
        - Eat soup
        - Eat entrée
- Level 3 Incorporate into a schedule (timing element)

# See you next week