Lecture 5: Project Management

What is a project?

Definition:
Every project has a definite beginning and a definite end

- In contrast: Operations are ongoing and repetitive

Core activities and project management

- Applications are neither projects nor operations, but products
PM knowledge areas

PM activities fall into nine Knowledge Areas

- Project Integration Management
- Project Scope Management
- Project Time Management
- Project Cost Management
- Project Quality Management
- Project Human Resource Management
- Project Risk Management
- Project Communications Management
- Project Procurement Management

Project success

Definition:
A project is successful if the specified results are delivered in the required quality and within the predetermined time and resource limits.

Computer scientists tend to focus on scope and quality only
- The development of a technically perfect application is not a success if the cost exceeds the price clients are willing to pay
- Excellent project results often are worthless if they come too late (temporary market windows, external deadlines)

Project management life cycle

Example: time management

Process groups

- Project groups are not discrete one-time events
- They overlap and occur at varying levels of intensity within each phase of the project

Interaction between phases

- Input and output of the processes depend on the phase in which they are carried out
- But processes are not limited to one phase (overlaps)
The triple constraint

- Project objectives are **equally important**
- Actions in one project area usually affect other areas

The triple constraint - changes

Tradeoffs among objectives must be **managed**
Priorities are set by customers and management

More competing objectives

Assumptions

**Definition:**
*Assumptions are factors that, for planning purposes, are considered to be true, real, or certain*

- Assumptions affect all aspects of project planning, and are part of the progressive elaboration of the project
- Project teams frequently identify, document, and validate assumptions as part of their planning process
- Assumptions generally involve a degree of risk