Ch1: Intro to Project Management

Project: A temporary undertaken to produce a unique product, service, or result. The 4 project constraints are:

- Start & End points (**time**)
- A **budget** (**cost**)
- A clearly defined scope of the work that must be done **(**Users, Functions, Dimensions, and Constraints**)**
- Performance requirements to be met

Why IT Projects fail: The 3 main reasons are a **poor estimate in planning** and documentation leading to missed deadlines, **changes in scope** mid-project coupled with badly defined goals, and **insufficient resources** usually caused by changes in environment.

From Dr. Tout's course:

UML 2.0: 13 diagram types split into **structure**, **behavior**, and **interaction** diagrams.

Business Use Case Diagram: Represent the functionality provided by an organization as a whole. They are drawn from the organizational perspective. They do not differentiate between manual and automated processes. Unrelated to Use Case diagrams.

Note: There are no specific rules for these, just give a diagram that can be understood by someone who majored in business and not CS and forget what you know about standard use cases; go wild.

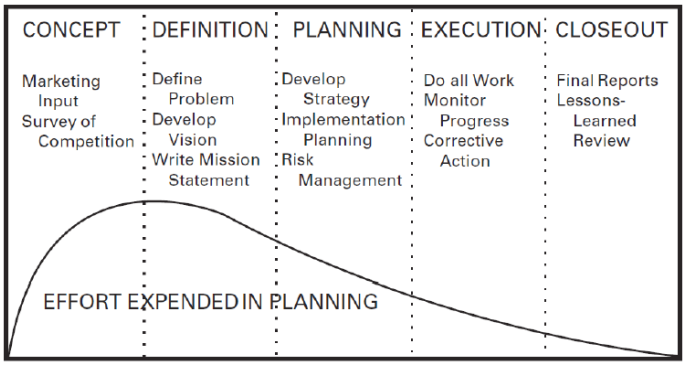
Why IT Projects succeed:

- Correct project management process + commitment from management team
- Well detailed requirements on a realistic schedule
- Good stakeholder relationships and an empowered project manager
- Skilled team members with defined roles & responsibilities
- Availability of funding

Some rules to succeed:

- Do not plan the project for the team, the people working on it should have a hand in planning
- Sponsors shouldn't dictate the four constraints and expect them to be done. Cost is a function of performance, time, and scope so if we know 3, we can compute the fourth. Sponsors get to dictate up to 3 but the fourth is always for the project manager to decide

Project Phases:



Definition Phase: Any mistakes here mean that down the line we will be forming the right solutions for the wrong problems

Planning Phase: tactics & logistics go here including making sure the team has the right materials and other supplies along with defining who will do what and how long each step will take

Execution & Control Phase: Development of what has been planed including monitoring of the process to ensure that work progresses according to plan (deviations will warrant corrective action)

Closeout Phase: "What did we do well?" & "What to improve next

Project Manager: Should be familiar with managing:

- **Integration:** Ensure proper coordination throughout all development processes
- **Scope:**
  - Authorize certain jobs
  - Define boundaries with a scope statement
  - Divide work into components with deliverables
  - Verify that the planned amount of work was achieved
  - Specify any scope changing control procedures (corrective actions to deviations in development)
- **Time:** Managing the schedule of the project
- **Cost:** Estimate resource costs (people, equipment, & material)
- **Quality:** Meet quality requirements and prevent rushed work to meet tight deadlines
- **Human Resources:**
  - Identify people needed for the job
  - Define their roles & responsibilities
  - Acquire/Hire these people
- **Communication:** Make sure everyone is up to date on project status, accomplishments, and events that may affect them
- **Risk:** Identify, quantify, analyze, and respond to any risks to minimize the probability and consequences of negative events
- **Procurement:** Deciding on and issuing requests on what must be procured(bought/acquired)

Leadership: Getting others to want to do something that you believe should be done

Dictatorship: Making others do what you see fit