


# NCLC 475 Multimedia Research and Project Development



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# Team Members



## ⌘ Program Lead

- ☑ Responsible for overall development and implementation of a project (including budgets and schedules). Usually the main interface to client or management

## ⌘ Developer

- ☑ Responsible for technical implementation of project. Sometimes there will be a separation of duties between the developer and the designer

# Team Members



## ⌘ Writer

- ☑ Responsible for documentation, but also for any text appearing within the site. Does the site get its message across?
- ⌘ There will always be some crossover in responsibilities and depending on skill level, more defined roles can be created (A/V specialist, graphics artist, programmer).
- ⌘ Creating a collective synergy is the goal!
- ⌘ Skill assessment page 407

# Planning and Costing



## ⌘ Three steps

- ☑ Clarify the project's objectives
- ☑ Evaluate the possible approaches
- ☑ Assess the cost/effectiveness of each approach

# Planning



- ⌘ You want to use a top down approach
- ⌘ Never lose sight of your goal . . . It is very easy to create something that you did not initially envision
- ⌘ Feasibility . . . CAN this happen?
- ⌘ Use software, EXCEL -> MS Project to schedule (leave a lag)
- ⌘ Follow your model, decide what/when deliverables will be
- ⌘ Time to complete a task also depends on how enjoyable the task is, and who is performing it

# Project Table

<b>Works Tasks</b>	<b>Planned Start</b>	<b>Actual Start</b>	<b>Planned Complete</b>
1.1.1 Identify Needs and benefits			
Meet with customers	wk 1, d 1	wk 1, d 1	wk 1, d 2
Identify needs and project constraints	wk 1, d 2	wk 1, d 2	wk 1, d 2
Establish Product Statement	wk 1, d 3	wk 1, d 3	wk 1, d 3
1.1.2 Define desired Output/Control/Input			
Scope keyboard functions	wk 1, d 4	wk 1, d 4	wk 1, d 5
Scope modes of interaction	wk 1, d 3	wk 1, d 3	wk 1, d 3

*Software Engineering*, Pressman, Roger

# Project Table (con'd)

<b>Actual Complete</b>	<b>Assigned Person</b>	<b>Effort Allocated</b>	<b>Notes</b>
wk 1, d 2	hft	2 p-d	Scoping will
wk 1, d 3	rfs	1 p-d	require more time
wk 1, d 3	hft/aje	1 p-d	
	aje	1.5 p-d	
	hft	2 p-d	

*Software Engineering*, Pressman, Roger

# Costing



- ⌘ While SW Engineers have Source Lines of Code (SLOC) and function points, there is not an industry standard for MM
- ⌘ Categories that must be considered include, but are not limited to (figure 16-9):
  - ☑ Salaries      Contractors      Facilities
  - ☑ Travel      SW/HW      Communications
  - ☑ Distribution Copyright fees      Consumables (ink)

# Costing (con'd)



- ⌘ Break effort down into hourly rate
- ⌘ Match effort to tasks
- ⌘ Look for other sources to find more accurate information

# Operational Concept

- ⌘ Describes the operability of the system
- ⌘ Explains the 'what' as opposed to the 'how'
- ⌘ Should describe how users will interact with the system
  - ☑ Also describe the different actors involved

# Requirements



## ⌘ What is a requirement

☑ A condition or capability needed by a user to solve a problem or achieve an objective [IEEE]

⌘ The requirements phase starts when there is recognition that a problem exists and requires a solution

⌘ The requirements phase ends when you have a *complete* description of the application

# Requirements (con'd)



⌘ Requirements can be derived from stakeholders (SON) or past efforts

☑ It is also the responsibility of the developer to advise the customer of requirements that they may not specifically ask for

☑ Conversely, it is also the responsibility of the developer to advise the stakeholder when requirements are beyond the scope of the project/technology

# Requirements (con'd)



## ⌘ The Requirements Phase

- ☑ Elicitation of requirements as specified by the user
- ☑ Review of these requirements for ambiguities and inconsistencies
- ☑ Transformation of the requirements to a description of what the application will do without describing how it will do it

# Requirements (con'd)



## ⌘ Why are requirements important?

- ☑ The later in the life cycle an error is detected, the more expensive it will be to repair
- ☑ Create an acceptable level of performance for stakeholder evaluation

# Requirements (con'd)



## ⌘ Some requirements define functions:

- ☑ The system shall display the current percentage of questions answered correctly.

## ⌘ Some requirements specify relationships:

- ☑ The system shall enable users to specify the background color on the console

## ⌘ Some requirements define states:

- ☑ The system shall have an interactive tutorial mode

# Requirements (con'd)



⌘ Some requirements limit states:

- ☑ The system shall prompt user if inactive for more than two minutes

# Requirements



⌘ Requirements must be traceable and quantifiable

☑ Group by category

☑ Number each section

☒ 1.0

- 1.1.1 - 1.1.X

⌘ Should provide a baseline for development

# What to hand in



- ⌘ Vaughan pp 420-426 ALSO Operational Concept
- ⌘ Include Table of Contents
- ⌘ Must have a cover . . . Professional quality
- ⌘ 12 point font
- ⌘ System name/team name

# References



- ⌘ Pressman, Roger S. "Software Engineering: A Practitioners Approach" NY:McGraw Hill 1997.
- ⌘ Tannebaum, Robert S. "Theoretical Foundations of Multimedia" NY:Computer Science Press 1998.
- ⌘ Zettl, Robert. "Video Basics" Belmont, CA: Wadsworth 1995.