

INTRODUCTION to SSD10 course

**Senior-lecturer
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OUTLINE OF TALK

1. Course Syllabus
2. What is software project management
3. Software Project Manager position

SYLLABUS: Learning outcomes

- A basic knowledge of software project management principles
- Choose an appropriate project development methodology
- The ability to come up with a project schedule and assign resources
- Identify project risks, monitor and track project deadlines. Demonstrate the use of appropriate network scheduling techniques.
- The capability to work in a team environment and be aware of different modes of communications
- Examine the software project management principles in real life scenarios
- Be able to independently evaluate a particular topic of research interest and critically analyze the issues. Recognize issues in a realistic project scenario

SYLLABUS

Topics and Techniques Covered:

#Software Life Cycles

#Software Project Monitoring,

#Time Management, #Plan Management

#Software Project Quality issues

#Software Project Team Organization and
Managing

COURSE SYLLABUS

1. Lectures: *15 hours (15 weeks)*

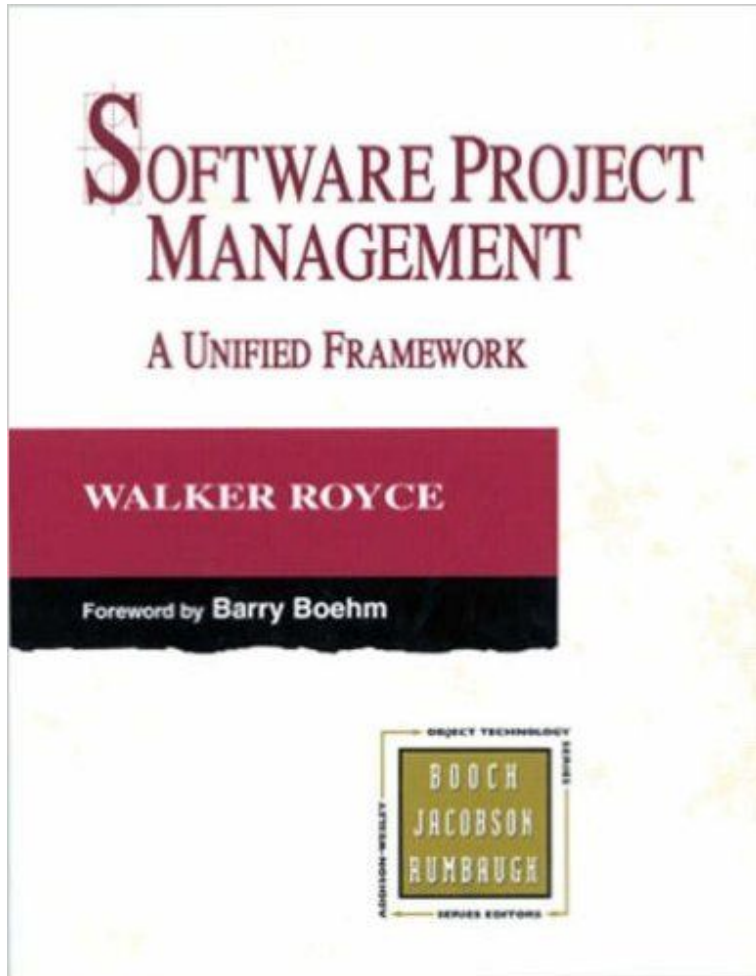
| | | | |
|---------------------------------------|----------------------------|----------------|------------------------------|
| 1 week | Introduction | 8 week | Communication factors |
| 2 week | SW Life cycles | 9 week | Communication |
| 3 week | SM: SPMP, SRS, WBS | 10 week | Negotiation |
| 4 week | TM: Scheduling | 11 week | Conflict Management |
| 5 week | Quality Assurance | 12 week | Decision Making |
| 6 week | Risk Management | 13 week | Leadership |
| 7 week | Review for lec. 2-6 | 14 week | Review for lec. 8-13 |
| 15 week Overall course summary | | | |

COURSE SYLLABUS

1. Laboratory classes: *30 hours (15 weeks) in class*

| | | | |
|---------------------------------------|------------------------|---------|-------------|
| 1 week | Exercise 0 Essay | 8 week | Exercise 6 |
| 2 week | Exercise 1 Life Cycle | 9 week | Exercise 7 |
| 3 week | Exercise 2 SPMP | 10 week | Exercise 8 |
| 4 week | Exercise 3 Gantt Chart | 11 week | Exercise 9 |
| 5 week | Exercise 4 SQA | 12 week | Exercise 10 |
| 6 week | Exercise 5 SRM | 13 week | Exercise 11 |
| 7 week | Midterm | 14 week | Endterm |
| 15 week Overall course summary | | | |

COURSE SYLLABUS: References



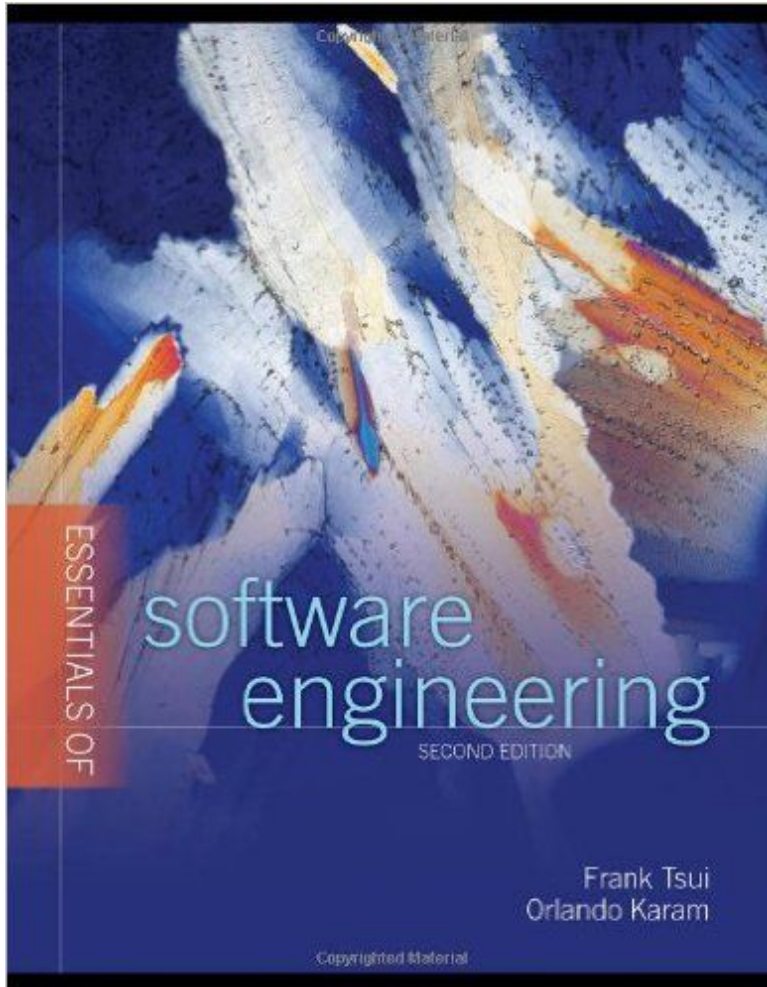
Authors: Walker Royce

Published: Addison -
Wesley

Year: 1998

ISBN: 0-201-30958-0

COURSE SYLLABUS : References



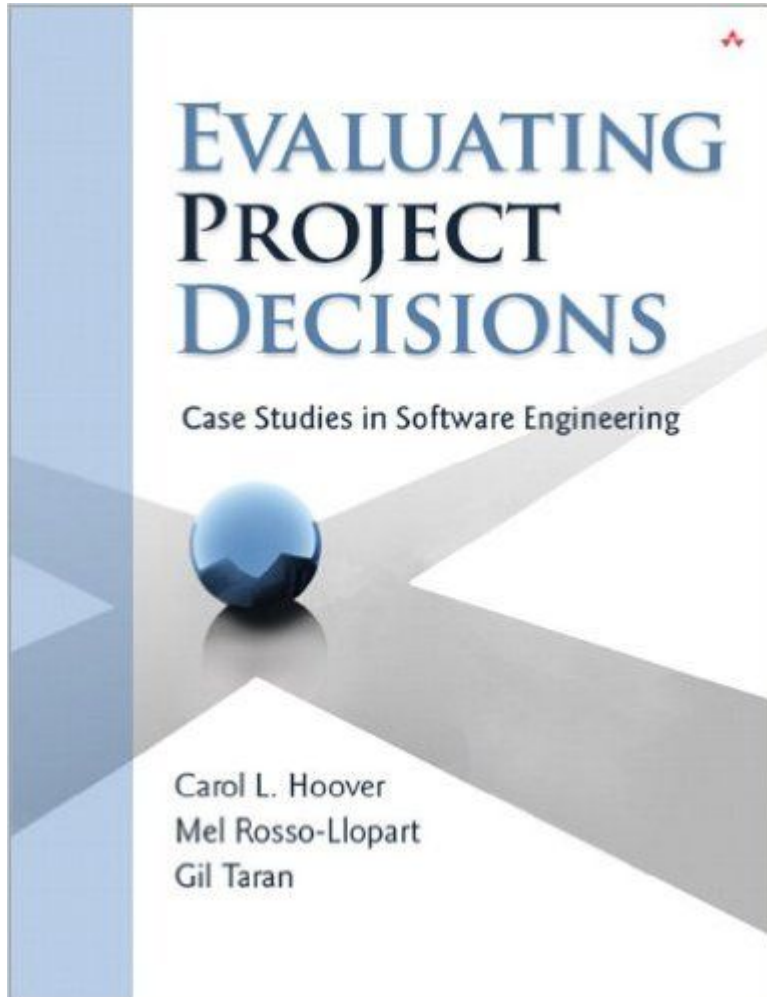
Authors: Frank Tsui,
Orlando Karam

Published: Jones &
Bartlett Learning

Year: 2013

ISBN: 978-0763785345

COURSE SYLLABUS: References



Authors: Carol L. Hoover, Mel Rosso-Llopart, Gil Taran

Published: Pearson Education, Inc.

Year: 2010

ISBN:

978-0-321-54456-8

What is the Project?

Some dictionary definitions:

“A specific plan or design”

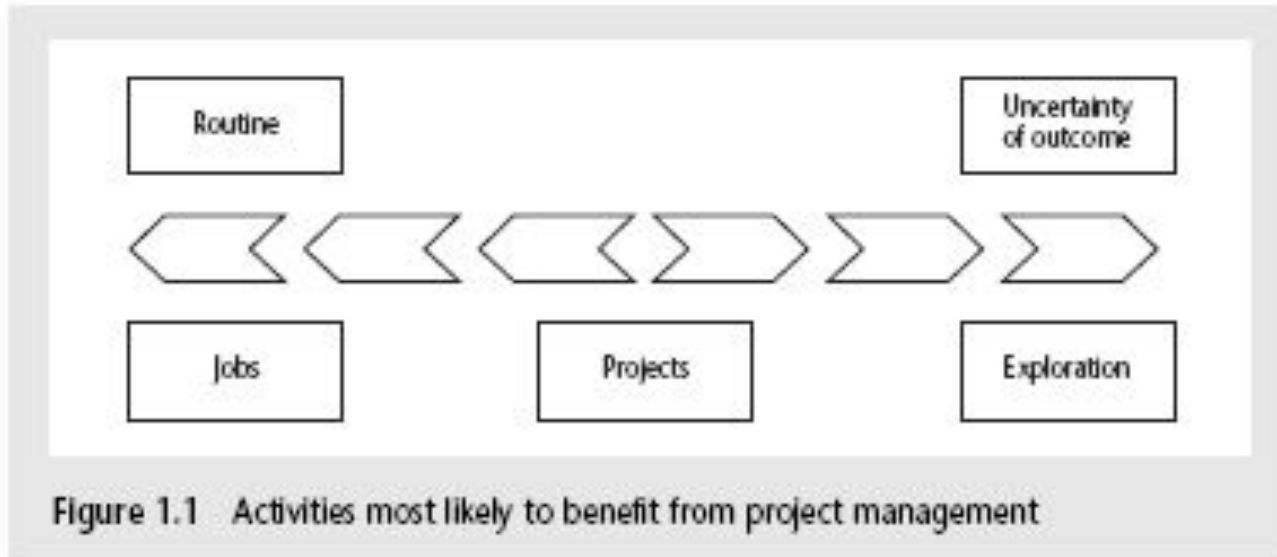
“A planned undertaking”

“A large undertaking e.g. a public works scheme”

Longmans dictionary

Key points above are ***planning*** and ***size*** of task

Jobs versus projects



‘Jobs’ – repetition of very well-defined and well understood tasks with very little uncertainty

‘Exploration’ – e.g. finding a cure for cancer: the outcome is very uncertain

‘Projects’ – in the middle!

SOFTWARE ENGINEERING

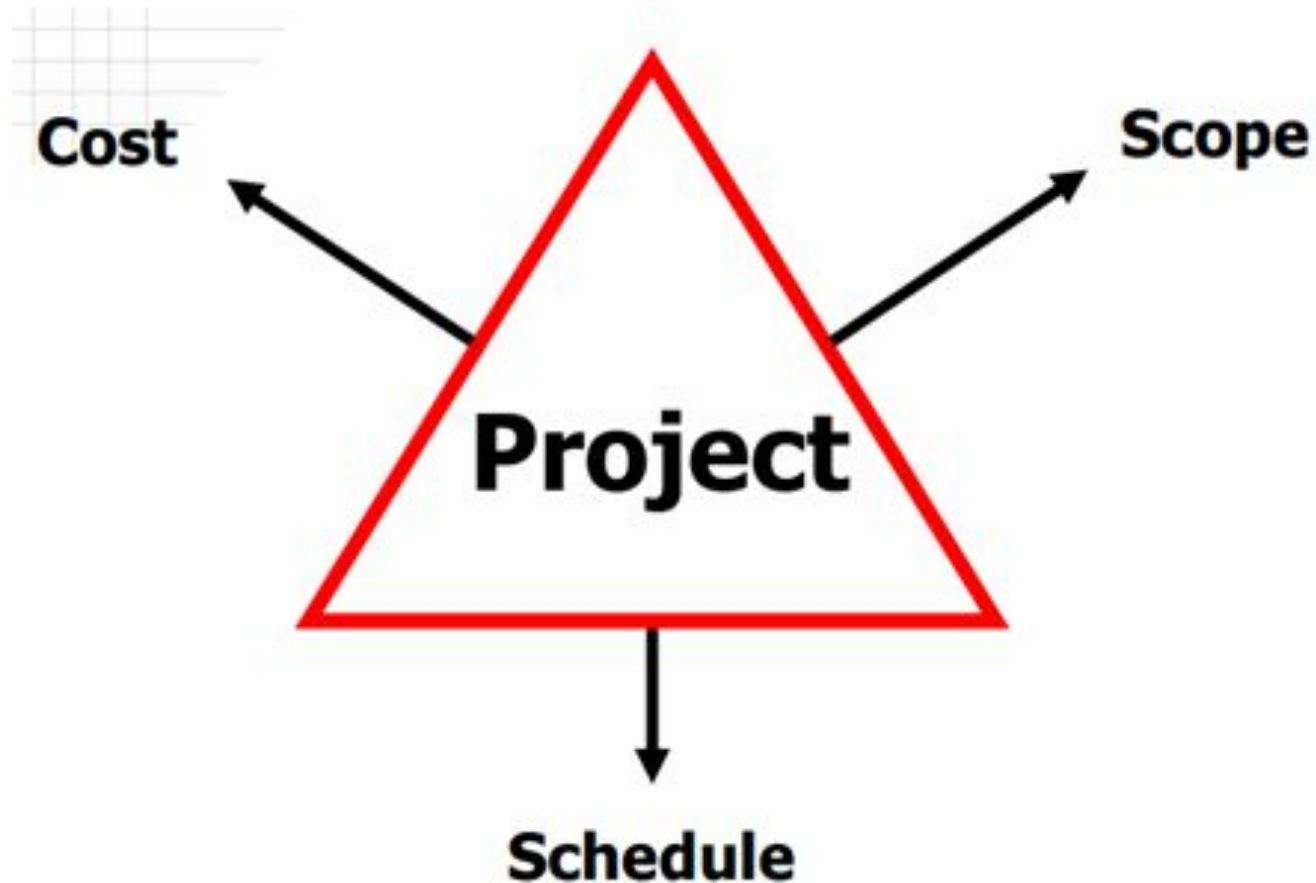
- What is software project management? Is it really different from 'ordinary' project management?
- How do you know when a project has been successful? For example, do the expectations of the customer/client match those of the developers?

Project's characteristics

A task is more 'project-like' if it is:

- Non-routine
- Planned
- Aiming at a specific target
- Work carried out for a customer
- Involving several specialisms
- Made up of several different phases
- Constrained by time and resources
- Large and/or complex

SOFTWARE ENGINEERING

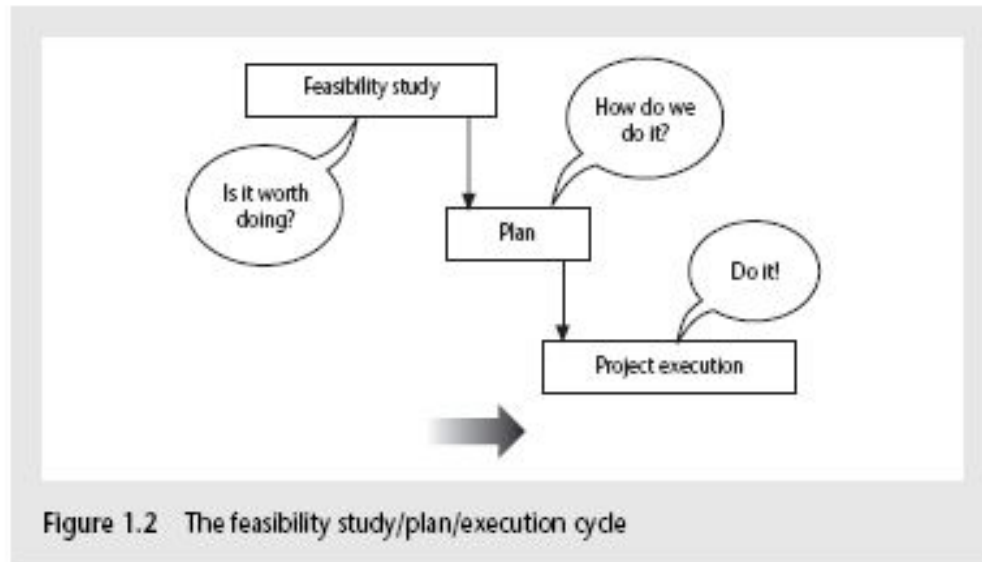


Project types

Distinguishing different types of project is important as different types of task need different project approaches e.g.

- Voluntary vs compulsory
- Information systems versus embedded systems
- Objective-based versus product-based

Activities covered by project management



Feasibility study

Is project technically feasible and worthwhile from a business point of view?

Planning

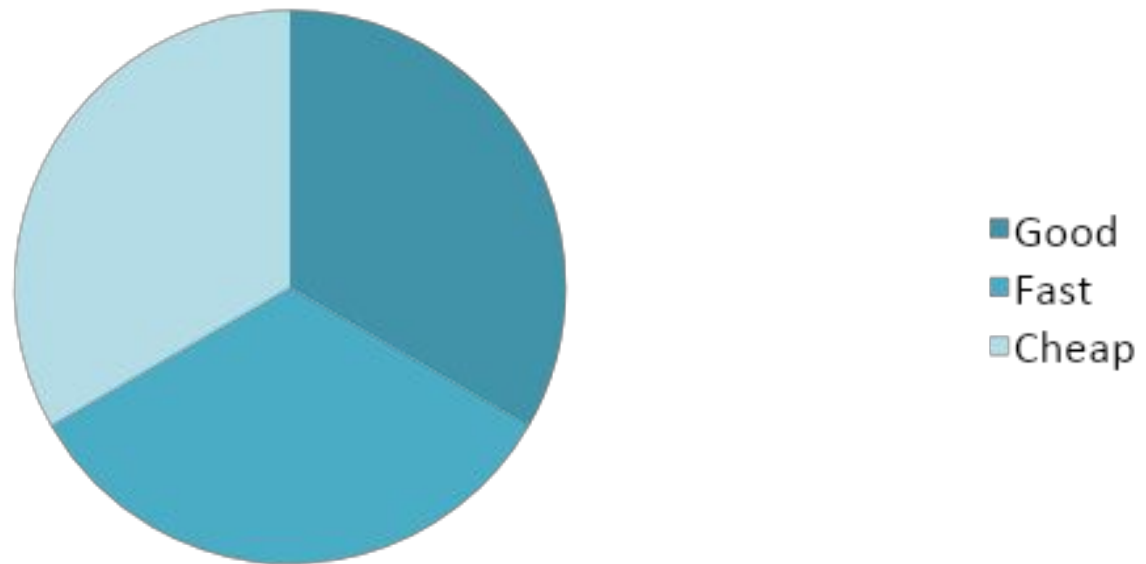
Only done if project is feasible

Execution

Implement plan, but plan may be changed as we go along

SOFTWARE ENGINEERING: Management

- Management is a balancing act, a continuous stream of **decisions** under changing conditions.



SOFTWARE ENGINEERING: Management

This involves the following activities:

- Planning – deciding what is to be done
- Organizing – making arrangements
- Staffing – selecting the right people for the job
- Directing – giving instructions

continued...

SOFTWARE ENGINEERING: Management

- Monitoring – checking on progress
- Controlling – taking action to remedy hold-ups
- Innovating – coming up with solutions when problems emerge
- Representing – liaising with clients, users, developers and other stakeholders

MANAGEMENT ROLE

- Why do we need manager?
- When we do not need manager?

SOFTWARE PROJECT MANAGER POSITION

Team Leader vs Project Manager

Emphasizing
Encouraging
Collaborating
The best
specialist in his
case

Planning
Organizing
Staffing
Directing
Controlling

SOFTWARE ENGINEERING

- **Principles :**

- Alan Davis (15 most important princip.)
- Royce Walker (top 10 princ.)
- Anthony Wasserman

Readings

- Management principles