



VIETNAM NATIONAL UNIVERSITY OF HO CHI MINH CITY
UNIVERSITY OF NATURAL SCIENCES
FACULTY OF INFORMATION TECHNOLOGY

COURSE SYLLABUS

Course Code:	TH113
Title:	Project Management
Credits:	2
Workload:	Lecture hours: 3 periods * 10 weeks = 30 periods Preparative hours: 3 periods * 10 weeks = 30 periods
Prerequisites:	TH110 - Introduction to Software Engineering

Course Objectives:

The course is to provide students with the fundamental knowledge of managing and organizing all phases of software development. It consists of two parts. The first part is about documentation of software feasibility (requirement gathering, strategy suggestion, cost estimation, and risk analysis). The second part is about skills of software development (planning, personnel management, and implementation supervision).

Main Text: N/A

References:

- *Software Engineering - A Practitioner's Approach*
Roger S. Pressman - International Edition, 1997.
- *Software Engineering with Student Project Guidance*
Barbee Teasley Mynatt. Prentice-Hall International Editions, 1991.
- *Software Project Management for Small to Medium Sized Projects*
John J. Rakos - Prentice-Hall, 1990.

Course Outline:

Chapter 1 Project Management Overview

- 1.1 Basic Concepts
 - 1.1.1 Software Projects
 - 1.1.2 Software Project Management
- 1.2 Project Phases
 - 1.2.1 Pre-Feasibility Phase
 - 1.2.2 Developing Phase
 - 1.2.1 Testing Phase
- 1.3 Some Issues in Software Project Management
 - 1.3.1 Strategy Suggestion
 - 1.3.2 Risk Analysis
 - 1.3.3 Cost Estimation
 - 1.3.4 Personnel Management
 - 1.3.5 Planning
 - 1.3.6 Implementation Supervision
 - 1.3.7 Testing

Chapter 2 The Pre-Feasibility Phase

- 2.1 Requirement Gathering
 - 2.1.1 Objectives
 - 2.1.2 Methods
 - 2.1.3 Business Modeling
 - 2.1.4 Problems
- 2.2 Requirement Specification
 - 2.2.1 Functional Requirements
 - 2.2.2 Non-Functional Requirements
 - 2.2.3 Planning and estimations
- 2.3 Strategy Suggestion
 - 2.3.1 Strategies
 - 2.3.2 Hardware Strategies
 - 2.3.3 Software Strategies
 - 2.3.4 Personnel Strategies
 - 2.3.5 Exploiting Process
- 2.4 Risk Analysis
 - 2.4.1 Introduction to Risks
 - 2.4.2 Categorizing Risks
 - 2.4.2.1 Risk Management
- 2.5 Cost estimation
 - 2.5.1 Different Approaches
 - 2.5.2 Expert Judgment (Expertise Based)
 - 2.5.3 Estimation by Analogy
 - 2.5.4 Algorithmic (Parametric) Models

Chapter 3 The Developing Phase

- 3.1 Planning
 - 3.1.1 Objective
 - 3.1.2 The PERT diagrams
 - 3.1.2.1 Constructing diagrams
 - 3.1.2.2 Activity time and cost trade-offs
 - 3.1.3 The GANTT diagrams
 - 3.1.3.1 Constructing diagrams
 - 3.1.3.2 The Minimum Personnel Requirements
- 3.2 Personnel Management
 - 3.2.1 Different Approaches
 - 3.2.2 Project-Oriented Approach
 - 3.2.3 Specialty Oriented Approach
 - 3.2.4 Combinations of Different Approaches
- 3.3 Implementation Supervision
 - 3.3.1 Principles in Work Assignments
 - 3.3.2 Reports
 - 3.3.3 Changing plans

Grading

Final exam : 50%

Assignments: 50%