### SUBJECT DESCRIPTION FORM

Subject Title: Software Project Management

Subject Code: COMP5221

Credit Value: 3

<u>Pre-requisite</u>: (Subject title and code no, if any)

Nil

# Recommended background knowledge:

Some working experience or basic understanding of project environment is desirable.

# **Mutual Exclusions:**

Managing Software Development and Quality (COMP517), Advanced Topics in Software Engineering (COMP548)

# Learning Approach:

42 hours of Class activities including - lecture, tutorial, lab, workshop seminar where applicable

#### Assessment:

Term Project/assignment 60% Test, and Examination 40%

# Objectives:

This subject aims to provide students with a systematic approach to initiating, planning, executing, controlling and closing a software project. Students will develop a basic understanding of the nine project management areas and the role of a typical project manager. Students will learn the best practices and techniques used in project management processes.

### **Learning Outcomes:**

After completing this subject, students should be able to:

- 1. describe project life cycle;
- 2. write a project plan;
- 3. estimate project effort with COCOMO method and other common techniques;
- 4. monitor and report on project progress;
- 5. know the 9 knowledge areas of Project Management Institute's body of knowledge;
- 6. apply risk management techniques;
- 7. apply time and cost management techniques; and
- 8. understand quality management concepts and models.

### **Keyword Syllabus:**

### **Project Management Process & Technique**

Project conception; Project definition; Project Life Cycle; Roles and Responsibility of project manager, Principle of Software Development.

Project Management Processes: Initiating, planning, executing, controlling, and closing

Project management techniques: planning, organizing, controlling, evaluating, reporting, costing, sizing, cost/benefit analysis, and earned value analysis

Methods for project planning: Estimation of project size, schedule and cost.

Methods for project control: Checkpoints, Reviews, Change Management, Reporting, Issues management, Team building, High performance team.

#### **Project Management Knowledge Areas**

Integration Management, Scope Management, Time Management, Cost Management, Quality Management, Human Resource Management, Communication Management, Risk Management, Procurement Management

## Indicative reading lists and references:

# **Books**

A Guide to the Project Management Body of Knowledge, PMBOK Guide 2000 Edition, Project Management Institute.

Cadle, J., Yeates, D., 2004, Project Management for Information Systems, Prentice Hall.

Hughes, B. and Cotterell, M., 1999, Software Project Management, McGraw-Hill.

Kerzner, H., 2001, Project Management, A systems approach to Planning, Scheduling, and Controlling, John Wiley & Sons.