School of Computing and Informatics

CCC 502: ICT Project Management Course Outline

Learning Outcomes

At the end of the unit learners are expected to:

- *Demonstrate understanding of key concepts in project management*
- *Develop a project plan using a step-wise approach*
- *Perform Project Costing, Scheduling, Resource Allocation and Risk Management*
- *Demonstrate a clear understanding of various activities performed in project environment*
- *Distinguish ICT projects from other types of projects*
- *Apply various techniques to manage project staff*
- *Apply various project scheduling techniques*
- *Evaluate different types of ICT oriented contracts*

Delivery Methodology

This course will use a combination of lectures, tutorials, assignment/practicals, discussion, group work, term papers and case studies.

Detailed Course Description

The course is organized into the following topical area:

1. ***Project Management Concepts***
   - *(a) Introduction*
     - *Definition of a Project*
     - *Project Management Life Cycle*
     - *Project Management in Practice Examples*
   - *(b) Types of ICT Projects*
   - *(c) Project Management Initiation*
     - *Project Selection Models*
       - *Criteria for Selection Models*
       - *Nature of Selection Models*
       - *Types of Project Selection Models*
     - *Project Proposals*
     - *Examples from Practice*
   - *(d) The Project Manager*

- *Project management and the project Manager*
- *Selecting the Project Manager*
- *Cultural Differences issues*
- *Impacts of Institutional Environments*
- *Managerial behavior*
- *Examples from Practice*

(e) The Project Organization

- *Pure Project Organization*
- *Matrix Organization*
- *Mixed Organizational Systems*
- *Choosing the Project Team*
- *Human Factors and the Project Team*

2. *Project Planning , Budgeting and Cost Estimation*

(a) Project Planning

- *Initial Project Coordination*
- *Systems Integration*
- *WBS and Linear Responsibility Charts*
- *Interface Coordination*
- *Examples from Practice*
- *Conflict Negotiation within Project Life Cycle*

(b) Budgeting and Cost Estimation

- *Estimating Project Cost*
- *Improving the costing process*
- *Project appraisal/evaluation*
- *Examples from Practice*

3. *Scheduling and Resource Allocation*

(a) Scheduling

- *Critical Path Method*
- *Gantt Charts*
- *Examples from Practice*

(b) Resource allocation

- *CPM Method*
- *Resource allocation Problem*
- *Resource loading and Resource leveling*
- *Constrained Resource Scheduling*
- *MultiProject Scheduling and Resource allocation*
- *Examples from Practice*

4. Project Risk Management

- *Introducing PERT*
- *PERT in Scheduling and Risk Management*
- *Examples from Practice*

5. *Project Communication and Quality Management*

(a) Project Communication

- *Importance of Communication*
- *Communication Problems and the Process of Communication*
  - *Informal Communication, Non Verbal Communication, Written Communications*
  - *Project Meetings*
  - *Role of Technology*
  - *Communication Links*
- *Examples from Practice*

(b) Project Quality Control –Monitoring and Control and Standards

- *Steps in Control Cycle*
- *Monitoring and Evaluation*
- *Project Audits and the Audit Life Cycle*
- *Configuration Management and Control*
- *Planning and Control Implications for Project Success or Failure*
- *ICT Project Management Standards*
- *Examples from Practice*

6. *Project Stakeholder Management*

- *Who are the Stakeholders and why manage them?*
- *Stakeholder influence*
- *PSM Process and execution*
- *Examples from Practice*

7. Managing Contracts

- *Types of Contracts*
- *Why Manage Contracts*
- *Examples from Practice*

8. Managing Change

- *Defining Culture, Organizational Culture*
- *Why Change? The constancy of change*
- *Trust factor*
- *Influencing Teams Culture*
- *Code of Ethics for Project Professionals*

Course Texts

- *Project Management: A Managerial Approach, 4th Edition, Jack Meredith and Samuel Mantel*
- *Project Management : Strategic Design and Implementation, 4th Edition, David Cleveland and Lewis Ireland*

Reference Text

- *Software Project Management, 4th Edition, Mike Cotterel and Bob Hughes*
- *Project Management for Information systems by James Cadle & Donald Yeates, Prentice Hall, Fourth Edition, ISBN 0-273-68580-5*