**COURSE OUTLINE**

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| *Course name* | **SOFTWARE Project MANAGEMENT** |
| *Course code* | **CSC 4101** |
| *Semester* | **January – April 2023** |
| *Lecturer/email address* | [wmusyoka@spu.ac.ke](mailto:wmusyoka@spu.ac.ke) |
| *Time* | **2 – 5 PM Tuesday** |
| *Day of the week* |

1. **Course objectives**

To introduce the student to the understanding of project management principles and practices. This includes:

* Explain how a project can be broken down into stages and what each stage contributes to the project
* Appropriate techniques for use in the stages of a project
* Justify the appropriateness of these techniques, and apply them to practical situations
* Explain the limitations of the project approach in developing information/software systems
* Understand and practice the process of project management and its application in delivering successful IT projects;
* Evaluate a project to develop the scope of work, provide accurate resources estimates using various techniques.
* Understand and use risk management analysis techniques that identify the factors that put a project at risk and to quantify the likely effect of risk on project timescales
* Identify the resources required for a project and to produce a work plan and resource schedule
* Distinguish between the different types of project and follow the stages needed to negotiate an appropriate contract.

1. **Course content**

Basic project management skills with a strong emphasis on issues and problems associated with delivering successful IT projects. The module is designed to provide an understanding of the particular issues encountered in handling IT projects and to offer students methods, techniques and 'hands-on' experience in dealing with them.

1. **Detailed course content**

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| **Week** | **Subject area** | **Discussion topics** | **Assignments/Reading guide** |
| Week 1 | Introduction to project management, | What is a project, project management, defining project success, Types of projects, | Chapter 1 p.g 1-16 course text **(3)**  Chapter 1 p.g 1-13 course text **(2)** |
| Week 2 | Traditional project management | Project stages and what each stage contributes to the project   initiation   Planning or development   Production or execution   Monitoring and controlling   Closing  Traditional linear phase–centric approach, the advantages and disadvantages. | Research on why IT project fails  And best practices |
| Week 3 | Planning systems development | Adaptive Project Framework;  PRINCE 2 approach,  SSADM (Structured Systems Analysis and Design  Method)  Open source methodology.  Best practice for selecting a methodology. | READ ON strength and weaknesses of each discussed approach. |
| Week 4 | Project monitoring and control cycle | Limitations of the project approach in developing information/software systems | - |
| Week 4 | Capability Maturity Model (CMM) | CMM as a strategy for improving software process in projects, levels of process maturity for an organization: |  |
| Week 5 | Project cost estimates | Estimating in IS/IT projects, estimating methods (analogy, effort analysis, programming, Delphi, COCOMO, Functional point analysis). Estimating project supporting activities and proportional activities, practical experiences in estimating. | Research on:  Factors influencing estimates in IS/IT projects. |
| Week 6 | Risk planning and Management in projects | Risk management plan, identifying risk, assessing risks, risk response development, risk response control.  Risk ownership, components of a risk register | Research on:  Risk response actions used in project management |
| Week 7 |  | **CAT 1** | ” |
| Week 8 | Project Management personnel | Roles and responsibilities , skill required | Assignment: writing job and persons specification for various project management roles. |
| Week 9 | ” | Adaptive (leadership-collaboration-accountability) Management,  Planning adaptive development cycles | ” |
| Week 10 | Project Quality assurance | Process, product, and perception as measures of quality, CMM level 2 Practices on quality assurance, quality assurance inputs, tools, techniques and outputs. | ” |
| Week 11 | Configuration Management.  Project library.  Work plan and resource schedule | Resources required for a project and to produce a work plan and resource schedule.  Scope creep and feature creep | Take back the assignment |
| Week 12 | The process of project management and its application in delivering successful IT projects | Critical project factors,  Selling the project, managing stakeholders and project climate |  |
| Week 13 | Managing Projects | Managing Project Time Cycles.  Work state life cycles management.  Post project review |  |
| Week 14 |  | Revision and exams |  |
| Week 15 |  | Revision and exams |  |

1. **Teaching methodology**

The module will be taught using a combination of mini lectures, problem solving and discussions, topic discussions, team work, supported by assignment work.

1. **Course evaluation**

Final Semester Examination 70%

Continuous Assessment Tests (1) 20%

Class presentation and Assignments 10%

1. **Course texts and recommended reading**

**Course Text**

1. Cadle, J & Yeates, D (2001) Project Management for Information Systems (3rd Ed.) Pearson Education ISBN: 0273651455
2. Meredith Jack R. (2004) Project Management: A Managerial Approach. 5th Ed - John Wiley & Sons, Inc.: New Jersey ISBN 0-471-07323-7
3. Maylor Harvey (2003) Project Management 3rd Ed. - Pearson Education, Ltd.: New Delhi ISBN 81-7758-036-1
4. Jason Charvat (2003) Project Management Methodologies: Selecting, Implementing, and Supporting Methodologies and Processes for Projects by ISBN:0471221783 John Wiley & Sons © 2003

**Recommended Reading:**

* 1. Schwalbe, K. (2006) Information Technology Project Management, Thomson,
  2. Jones, C. (2000)Software Assessments, Benchmarks, and Best Practices, Addison-Wesley,
  3. Brandon, Dan .(2006) Project management for modern information systems IRM Press ISBN (hardcover) 1-59140-693-5
  4. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) Third Edition 2004 Project Management Institute, Four Campus Boulevard, Newtown Square, PA 19073-3299 USA ISBN 1-940699-45-X

1. **Journals and periodicals**

White papers, journals and cases from the internet

1. **Websites**

1. http://www.utexas.edu/academic/cit/howto/tutorials/project/index.html [Accessed on 1st sep 2009]
2. <http://www.coerdelion.demon.co.uk/pm/index.htm>

[Accessed on 1st Sep 2009]

1. http://www.construx.com/survivalguide/

[Accessed on 1st Sep 2009]

1. http://www.mariosalexandrou.com [Accessed on 1st Sep 2009]
2. **Ground rules**
   1. ***Late assignments will not be accepted***
   2. ***You must achieve 80% class attendance***
   3. ***You will work in groups and change groups periodically if need be.***
   4. ***Group work must be completed on time as required***
   5. ***You will do a Mid-Term Test in week 7.***
   6. ***Switch off your mobile phones while in class.***
   7. ***Academic Honesty- plagiarism is NOT accepted in academic endeavors.***

**Note**: Handouts will be supplied either in Hard or soft or via e-mail.