**CENTRAL UNIVERSITY**

**FACULTY OF ENGINEERING**

**DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY**

**FIRST SEMESTER 2021/2022 ACADEMIC YEAR**

**COURSE OUTLINE**

**Course: ITEC305: IS Project Management Credits: 3**

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**Course description:**

This course covers the skills required for implementing projects, with emphasis on IT applications. This course covers both the theory, and actual practice, of how to successfully manage projects. Topics to be covered will include: leadership development skills, interdisciplinary collaboration, change management, project management software, and communication skills required across various IT disciplines. Others are review the concepts, methodologies, integration management, costing, quality, collaboration, project life cycles, control, risk management, procurement, and evaluation.

**Course objectives:**

By the end of the course, students will be able to:

1. Demonstrate knowledge of project management concepts, methodologies and techniques
2. Actively participate as a manager or member of an Information Technology Project
3. Plan, develop and implement information system projects successfully.

**Teaching Approaches:**

There would be formal lectures, practical lab work, assignments, reflections and discussions

**Minor Modifications:**

When minor modifications are made to this syllabus, those will be reflected in the Virtual Learning Environment (VLE).

**Online Learning Materials and Activities:**

You can access all learning materials in the VLE, if you are a registered student. It is very important to participate in learning activities given in the VLE to learn this course

**Assessment:**

There would be two quizzes, two an unannounced quiz and a number of class exercises and assignments. These would constitute 40% of the total scores for the final grade. In addition, there is a final end of semester examination which would constitute 60% of the total scores for the final grade.

**Online Assignments:**

Online assignments, quizzes and other related form of assessment could be conducted on the VLE as well.

**Content:**

Introduction to Project Management (WEEK 1)

1. What is a Project
2. Advantages of project management
3. Examples of information technology projects
4. Project attributes
5. The triple constraint
6. Project stakeholders
7. Project management knowledge areas
8. The Role of the Project Manager
9. Ethics in Project Management

Information Technology Context and Process Groups in Project Management (WEEK 3- WEEK 2)

1. A Systems View of Project Management
2. What is a systems approach?
3. The three-sphere model for systems management
4. Stakeholder management
5. The importance of top management commitment
6. The need for organizational commitment to information technology
7. The need for organizational standards
8. Project Phases and the Project Life Cycle
9. The nature of information technology projects
10. Characteristics of information technology project team members
11. Diverse technologies
12. Project Management Process Groups

Project Integration Management (WEEK 4)

1. What is Project Integration Management?
2. Strategic Planning and Project Selection
3. Identifying potential projects
4. Methods for Selecting Projects
5. Focusing on broad organizational needs
6. Categorizing information technology projects
7. Performing Net Present Value Analysis, Return on Investment and Payback Analysis
8. Project Charters
9. Preliminary Scope Statement
10. Project Management Plans
11. Project Execution
12. Monitoring and Controlling Project
13. Integrated Change Control
14. Closing Projects

Project Scope Management (WEEK 5)

1. What is Project Scope Management?
2. Scope Definition and the Project Scope Statement
3. Creating the Work Breakdown Structure
4. Scope Verification
5. Scope Control How to improve user input
6. Suggestions for reducing incomplete and changing requirements

Project Time Management (WEEK 6)

1. Importance of Project Schedules and Time Management
2. Activity Definition
3. Activity Sequencing
4. Activity Resource Estimating
5. Activity Duration Estimating
6. Schedule Development
7. Gantt Charts
8. Critical Path Method
9. Program Evaluation and Review Technique

Project Cost Management (WEEK 7)

1. Importance and Principles of Project Cost Management
2. Cost Estimating
3. Types of cost estimates
4. Cost estimation tools and techniques
5. Typical problems and examples

Project Quality Management (WEEK 8)

1. Importance of Project Quality Management
2. What is Project Quality Management?
3. Quality planning
4. Quality assurance
5. Quality control
6. Pareto analysis
7. Testing
8. Deming fourteen points for management
9. Cost of Quality

Project Human Resource Management (WEEK 9 AND 10)

1. What is project Human Resource Management?
2. Project organizational charts
3. Responsibility assignment matrices
4. Management plans and resource histograms
5. Resource assignment
6. Resource loading
7. Resource leveling
8. Developing the Project Team
9. Managing the Project Team

Project Communications Management (WEEK 10 AND 11))

1. Introduction to Project Communications Management
2. Communications Planning
3. Using technology to enhance information distribution
4. Formal and informal methods for distributing information

Project Risk Management (WEEK 10)

1. The Importance of Project Risk Management
2. Risk Management Planning
3. Qualitative Risk Analysis
4. Quantitative Risk Analysis

Project Procurement Management (WEEK 10)

1. What is Project Procurement Management?
2. Tools and Techniques for Planning Purchases
3. Procurement Management Plan
4. Requesting Seller Responses and Selecting Sellers
5. Administering and Closing the Contract

Reference

1. Cadenhaed, R. (2011). *Sams Teach yourself java in 24hours (covering Java 7 and Android)*. London: Pearson.

2. “Managing Information Technology Projects” Kathy Schwalbe,Sixth Edition, Course Technology, 2011 (ISBN 81-315-1630-X).

3. Software Project Management” Bob Hughes and Mike Cotterell,FourthEdition, Tata McGraw-Hill

4. <http://en.wikipedia.org/wiki/List_of_project_management_software>

5. http://www.niwotridge.com/PDFs/PM%20Chapter%20%28short%20no%20email%29%20Update%202.pdf