MASENO UNIVERSITY

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

BACHELOR OF SCIENCE IN MATHEMATICS AND COMPUTER SCIENCE

YEAR 4 SEMESTER 1 SEPTEMBER – DECEMBER 2023

CCS 401: SOFTWARE PROJECT MANAGEMENT

COURSE OUTLINE AND SCHEDULE

Instructor:	Michael ondeja Adongo
Contact phone:	0716194067
Contact email:	michaelondeja@gmail.com
Purpose of course	Wednesday: 8am – 10am. Friday: 11am – 1pm.
Important notice:	The course is meant to provide the student with proper skills in planning and managing software development projects
Learning outcomes:	At the end of the course, the student should be able to: 1. Understand the growing need for better project management, especially for software projects. 2. Explain what a project is, provide examples of software projects, list various attributes of projects, and describe the constraint of projects. 3. Describe software project management and discuss key elements of the project management framework, including project stakeholders, the project management knowledge areas, common tools and techniques, and project success factors. 4. Understand the role of the project manager by describing what project managers do, what skills they need, and what the career field is like for software project managers. 5. Understand the need of Quality Assurance in software development process
Grading	• Two assignments constituting 10% of total marks • Two CATs constituting 20% of total marks • Final examination constituting 70% of total marks
Make-up policy	All exams and assignments will have strict due dates.

WEEK	TOPIC	SUB-TOPIC
1	Basic concepts of projects	• Definition of a project • Examples of IT Projects • Project Attributes • The Triple Constraints of a project • Project Stakeholders • Project Management Knowledge Areas • Project Management Tools and Techniques • The Role of the Project Manager • Suggested Skills for Project Managers
2	Project Scope	• Scope planning • Scope definition • Creating the WBS • Scope verification • Scope control
3	Project Time Management	• Project Time Management Processes • Activity definition • Activity sequencing
4	Project Time Management	• Activity duration estimating • Schedule development • Schedule control
5	Project Cost Management	• Project Cost Management Processes • Cost estimating • Cost budgeting • Cost control
		CAT 1
6	Software Cost Estimation approaches	• Empirical • Heuristic • Analytical
7	Project Quality Management	• Software Project quality management processes • Quality planning • Quality assurance • Quality control
8	Scope Aspects of IT Projects	• Functionality • Features • System outputs • Performance • Reliability • Maintainability
9		• Project Human Resource Management processes

	Software Project Human Resource Management	• Human resource planning • Acquiring the project team
10	Software Project Human Resource Management	• Developing the project team • Managing the project team • Sample Organizational Chart for a Large IT Project
11	Software project risk management	• Stages involve in software risk management process • Risk identification • Risk analysis • Risk planning • Risk monitoring • Sample Risk Breakdown Structure
	CAT 2	
12	Project Communications Management	• Importance of Good Communications • Project Communications Management Processes • Communications planning • Information distribution • Performance reporting • Managing stakeholders
13	Project Procurement Management	• Project Procurement Management Processes • Planning purchases and acquisitions • Planning contracting • Requesting seller responses • Selecting sellers • Administering the contract • Closing the contract
14	EXAMINATIONS	
15	EXAMINATIONS	
16	EXAMINATIONS	
Mode of presentation	Lectures, lecture notes, class discussions and group discussions, Lab demonstrations and assignments	
Instructional material and equipments	Audio visual equipments, white board and white board markers	
References	• Roger S. Pressman, Software Engineering: A Practitioner's Approach • Ian Sommerville, Software Engineering, Eighth Edition, Addition-Wesley • M. W. Evans, P. Piazza, and B. Dolkas, Principles of Productive Software Management. Wiley • H. Koontz and C. O'Donnell. Principles of Management: An Analysis of Managerial Functions, McGraw-Hill • Humphrey, Watts S., Managing the Software Process, Addison-Wesley	