

MAKERERE UNIVERSITY BUSINESS SCHOOL
FACULTY OF COMPUTING AND INFORMATICS
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE OUTLINE

COURSE NAME: Project Management Software

PROGRAMME: MBA II

SEMESTER : I

ACADEMIC YEAR: 2026/27

CREDIT UNITS: 3

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Course Description

This course provides a comprehensive introduction to project management principles with an exclusive, hands-on focus on Microsoft Project as the primary software tool. In today's dynamic business environment, projects drive organizational change and value creation. Students will explore the entire project lifecycle—from initiation and planning to execution, monitoring, and closure—while developing practical proficiency in MS Project for scheduling, resource allocation, budgeting, tracking, and reporting. The course integrates theoretical frameworks with intensive lab-based training in MS Project. It is designed to equip future managers with the digital and analytical competencies needed to lead projects that deliver strategic objectives in both the public and private sectors in Uganda and beyond.

Learning Objectives

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

1. Analyze the project management lifecycle and apply its core processes to business scenarios.

2. Proficiently use Microsoft Project to build comprehensive project plans, including task lists, dependencies, timelines, and calendars.
3. Develop and manage project budgets, assign and level resources, and optimize schedules using MS Project's analytical features.
4. Apply risk management frameworks and document risk responses within MS Project.
5. Monitor project progress using MS Project's tracking tools, Earned Value Management (EVM) reports, and dashboard features.
6. Generate professional project status reports and presentations directly from MS Project for stakeholder communication.

Learning Outcomes

Upon successful completion of the course, students should be able to demonstrate the following outcomes:

1. **Knowledge & Understanding:** Articulate key project management concepts (scope, time, cost, quality, risk).
2. **Practical Application (MS Project):** Create a detailed Work Breakdown Structure (WBS), network diagram, and resource-loaded schedule using MS Project.
3. **Analysis & Evaluation:** Critically evaluate project performance using MS Project's EVM analytics and propose corrective actions to keep projects on track.
4. **Digital Competence:** Confidently use MS Project's advanced features (baselines, custom fields, filters, reports) to manage complex project information.

Course Content:

Module 1: Foundations of Project Management

Introduction: Definition of a project vs. routine operations; the role of a project manager.

The Project Lifecycle: Initiation, Planning, Execution, Monitoring & Control, Closing.

Module 2: Project Planning & Scheduling

Scope Management: Defining project scope, objectives, and deliverables.

Work Breakdown Structure (WBS): Decomposing projects into manageable tasks.

Scheduling Fundamentals: Defining activities, sequencing, and estimating durations.

Practical Lab (MS Project):

Creating a new project file and setting the project start date.

Entering tasks, creating a WBS (outlining), and setting task durations.

Creating dependencies (Finish-to-Start, Start-to-Start, etc.) and lead/lag time.

Understanding critical path and slack using MS Project's Gantt Chart and Network Diagram views.

Module 3: Resource & Cost Management

Resource Management: Allocating human, material, and equipment resources.

Resource Leveling & Smoothing: Resolving over-allocation conflicts.

Cost Estimation: Bottom-up, top-down, and analogous estimating techniques.

Practical Lab (MS Project):

Creating resource sheets (work, material, cost resources).

Assigning resources to tasks.

Analyzing resource overallocation using the Resource Usage view and Resource Graph.

Applying resource leveling (manual vs. automatic) to resolve conflicts.

Entering cost rates and fixed costs; viewing the project budget and cost table.

Module 4: Project Monitoring, Control & Risk

Performance Measurement: Earned Value Management (EVM) - Planned Value (PV), Earned Value (EV), Actual Cost (AC).

Performance Reporting: Creating status reports and dashboards.

Risk Management: Identification, analysis, and response planning (documentation focus).

Practical Lab (MS Project):

Setting and saving a project baseline.

Entering actual progress (percentage complete, actual work, actual costs).

Tracking variances using the Tracking Gantt and Variance tables.

Generating EVM reports and interpreting Cost Performance Index (CPI) and Schedule Performance Index (SPI).

Using built-in report templates (Dashboard, Resource Overview, Cost Overview).

Module 5: Advanced MS Project Features & Integration

Multiple Projects: Consolidating projects, creating master projects, and managing shared resource pools.

Customization: Creating custom fields, tables, filters, and views.

Collaboration: Exporting MS Project data to Excel and PowerPoint for stakeholder presentations.

Practical Lab (MS Project):

Inserting sub-projects into a master project.

Creating custom reports and visual reports.

Exporting project data to Excel for advanced analysis.

Integrating MS Project with other Office 365 tools (Teams, SharePoint) for collaboration.

Teaching and Learning Methods

The course employs a mixed-mode approach designed for working professionals:

- **Theoretical Lectures:** Face-to-face or virtual lectures to introduce key concepts and frameworks.
- **Hands-on Computer Labs (MS Project):** Intensive, scheduled lab sessions where students work directly with MS Project to complete practical exercises.
- **Case Studies & Group Work:** Analysis of real-world project case studies and development of a comprehensive group project plan using MS Project.
- **Discussions:** Online discussion forums and in-class debates to share

professional experiences and problem-solving approaches.

Assessment Methods

Coursework One and Two 40%

Practical Final Exam 60%

Recommended Texts and Resources

Kerzner, H., & Kerzner, H. R. (2022). Project Management: A Systems Approach to Planning, Scheduling, and Controlling (13th ed.). Wiley.

Project Management Institute. (2021). A Guide to the Project Management Body of Knowledge (PMBOK® Guide) (7th ed.). PMI.

MS Project-Specific Guide: Marmel, E. (2023). Microsoft Project For Dummies. Wiley. (or latest edition covering MS Project 2021/Online).

Software Resources:

Microsoft Project (Desktop version 2021 or Microsoft Project Online) – provided via the MUBS computer labs or contact MUBS MIS Unit for installation on personal computers.