AOU Project Management — Lecturer Handbook (Part I)

B.Sc. · PMI PMBOK / PRINCE2 / APM / IPMA · OBE, schemes & course-file requirements

AKPAKIP ORO UNIVERSITY (AU)

Oro Nation, Akwa Ibom State, Nigeria

FACULTY OF SOCIAL SCIENCES

DEPARTMENT OF PROJECT MANAGEMENT

LECTURER HANDBOOK

PART I

B.Sc. Project Management

(with Construction & Infrastructure, Oil & Gas/Energy, ICT & Digital, and Development/NGO Specialisation Tracks)

Teaching Schedule, Scheme of Work, Course-File and Outcome-Mapping Requirements

Curriculum Framework: NUC CCMAS + AU Institutional Curriculum, aligned to PMI PMBOK, PRINCE2, APM and IPMA | Quality Framework: Outcome-Based Education (OBE)

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A. Quality Framework, Programme Educational Objectives and Programme Outcomes

A.1 Accreditation and Quality Framework

This handbook is prepared to meet the Nigerian Universities Commission (NUC) Core Curriculum and Minimum Academic Standards (CCMAS) for the Social Sciences/Management Sciences, and is additionally structured to align with international project management competency standards — the Project Management Institute's PMBOK Guide, PRINCE2, the APM Body of Knowledge and the IPMA Individual Competence Baseline — to support graduates' pursuit of PMP, PRINCE2 and equivalent professional certification.

Delivery follows Outcome-Based Education (OBE): every course, weekly topic and assessment you set must be traceable to stated Course Learning Outcomes (CLOs) and, in aggregate, to the Programme Outcomes (PM-PO1 to PM-PO12) listed below. You are responsible for demonstrating this traceability in your course file (Section E).

A.2 Programme Educational Objectives (PEOs)

Within three to five years of graduation, graduates of the Department of Project Management are expected to:

PEO1: Apply project management principles, tools and techniques to plan, execute, monitor, control and close projects across sectors relevant to Nigeria's development — construction, oil and gas, ICT, and development/NGO work — and to the wider international context.

PEO2: Pursue and attain recognised professional certification (PMP, PRINCE2, APM, IPMA or equivalent) and progress into project management practice, consultancy, or postgraduate study.

PEO3: Practise project management with integrity, ethical judgement and leadership grounded in African cultural values of dignity, empathy, inclusion and justice.

PEO4: Lead and manage multidisciplinary teams and stakeholders to deliver projects that are sustainable, socially responsible and sensitive to host communities, particularly within the Niger Delta and Gulf of Guinea context.

PEO5: Engage in continuous, life-long learning and the confident application of digital project management tools throughout a professional career.

A.3 Programme Outcomes (PM-PO1 to PM-PO12)

Your teaching, assessment design and CLOs must collectively build toward the following twelve outcomes, mapped to internationally recognised project management competency domains:

No.

Outcome

Description

PM-PO1

Integration Management

Coordinate all elements of a project — scope, schedule, cost, quality, resources, risk and stakeholders — into a coherent, deliverable whole.

PM-PO2

Scope Management

Define, document and control what is and is not included in a project, avoiding scope creep while meeting stakeholder needs.

PM-PO3

Schedule and Time Management

Plan, sequence and control project activities and timelines using appropriate scheduling techniques and software.

PM-PO4

Cost Management

Estimate, budget and control project costs, and appraise the financial viability of proposed projects.

PM-PO5

Quality Management

Plan, assure and control project quality against defined standards and stakeholder expectations.

PM-PO6

Resource and Team Management

Plan, acquire, develop and lead project teams and other resources effectively.

PM-PO7

Communications Management

Plan and execute effective project communication with sponsors, teams and stakeholders, in writing, orally and digitally.

PM-PO8

Risk Management

Identify, analyse, respond to and monitor project risks and opportunities throughout the project life cycle.

PM-PO9

Procurement and Contract Management

Plan and manage project procurement, contracts and supplier relationships within relevant legal frameworks.

PM-PO10

Stakeholder Management

Identify, analyse and engage project stakeholders, managing expectations and building support throughout the project.

PM-PO11

Professional Practice and Ethics

Apply the ethical principles, professional standards and codes of conduct expected of a project management professional.

PM-PO12

Life-Long Learning and Digital Fluency

Recognise the need for and engage in independent, life-long learning, including in emerging project management methodologies and digital tools.

A.4 How to Use This Handbook

Use the semester scheme in Part B as the minimum teaching framework for every course you teach, and develop a full course file per Section E. Ensure students can identify, every semester: registered courses (codes/units/status/prerequisites), weekly topics, coursework, continuous assessment requirements, exams/projects/pathway obligations, outcomes (mapped to PM-PO1-PM-PO12), resources required, and next-semester preparation.

A.5 Credit Unit and Grading Convention

One (1) credit unit is equivalent to one hour of lecture/tutorial contact per week, or two-to-three hours of practical/software-laboratory contact per week, over a fifteen-week semester. Indicative total load is approximately 130-140 credit units across the eight-semester programme; final unit-load balancing is subject to Faculty Board/Senate ratification. SIWES is Pass/Fail, no unit weight. Continuous assessment shall typically constitute 30-40% of the total course grade — you must not rely exclusively on the final examination.

B.Sc. Project Management

Delivered by the Department of Project Management, Faculty of Social Sciences, with specialisation pathways in Construction & Infrastructure, Oil & Gas/Energy, ICT & Digital, and Development/NGO Project Management.

Programme Emphasis

The programme develops project management professionals capable of planning, executing, monitoring, controlling and closing projects across construction, energy, ICT and development sectors, with particular attention to stakeholder and community engagement relevant to the Niger Delta and Gulf of Guinea, and grounded in international standards (PMI PMBOK, PRINCE2, APM and IPMA).

Curriculum Structure — Semester-by-Semester Summary

Semester

Level

Academic Theme

Semester 1

100 Level, First Semester

Foundations of Project Management and Social Science

Semester 2

100 Level, Second Semester

Social Science and Management Foundations

Semester 3

200 Level, First Semester

Core Project Management Principles

Semester 4

200 Level, Second Semester

Planning and Scheduling Techniques

Semester 5

300 Level, First Semester

Risk, Finance and Stakeholder Management

Semester 6

300 Level, Second Semester

Agile, Programme and Portfolio Management

Semester 7

400 Level, First Semester

Specialised Project Management Practice

Semester 8

400 Level, Second Semester

Capstone and Professional Readiness

Semester 1 — 100 Level, First Semester

Academic Theme: Foundations of Project Management and Social Science

Registered Courses

Code

Course Title

Units

Status

Prerequisite

GST 101

Communication in English I

2

C

None

GST 103

Nigerian Peoples and Culture

2

C

None

PM 101

Introduction to Project Management

3

C

None

SOC 101

Introduction to Sociology

2

C

None

ECO 101

Principles of Economics I

2

C

None

STA 101

Introductory Statistics I

3

C

None

PM 103

Fundamentals of Business Management

2

C

None

GST 105

Logic, Philosophy and Human Existence

2

C

None

Total Units This Semester

18

Weekly Teaching Scheme of Work

Weeks

Topics / Learning Activities

Weeks 1-2

Orientation; what project managers do; the project life cycle; project vs. operations.

Weeks 3-5

The project management profession; PMI, PRINCE2, APM and IPMA frameworks introduced.

Weeks 6-8

Introductory sociology and social structures relevant to project stakeholders.

Weeks 9-11

Principles of microeconomics; scarcity, cost and decision-making.

Weeks 12-14

Introductory statistics: data types, descriptive statistics, probability basics.

Week 15

Revision; case study presentations.

Coursework Requirements

Project life-cycle case study report

Sociology reflection essay

Economics problem sets

Statistics exercises

Business management case study

Semester Project: "My First Project Charter"

Students draft a simple project charter and stakeholder register for a small hypothetical community project.

Semester 2 — 100 Level, Second Semester

Academic Theme: Social Science and Management Foundations

Registered Courses

Code

Course Title

Units

Status

Prerequisite

GST 102

Communication in English II

2

C

GST 101

GST 104

Use of Library, Study Skills and ICT

1

C

None

PM 102

History and Evolution of Project Management

2

C

PM 101

SOC 102

Introduction to Social Psychology

2

C

SOC 101

ECO 102

Principles of Economics II

2

C

ECO 101

STA 102

Introductory Statistics II

3

C

STA 101

PM 104

Introduction to Project Planning and Scheduling

3

C

PM 101

POL 101

Introduction to Political Science

2

C

None

Total Units This Semester

17

Weekly Teaching Scheme of Work

Weeks

Topics / Learning Activities

Focus

Evolution of project management as a discipline; social psychology of teams and groups; macroeconomics; inferential statistics; introductory planning and scheduling (Gantt charts, work breakdown structures); political and governance context for projects.

Coursework Requirements

History timeline exercise

Social psychology case study

Economics assignment

Statistics problem sets

Work breakdown structure exercise

Semester Project: "Semester Output"

Portfolio demonstrating basic project planning, statistics and social science literacy.

Semester 3 — 200 Level, First Semester

Academic Theme: Core Project Management Principles

Registered Courses

Code

Course Title

Units

Status

Prerequisite

PM 201

Project Management Principles and Practice

3

C

PM 104

PM 203

Project Scope and Integration Management

3

C

PM 201

ACC 201

Principles of Financial Accounting

2

C

None

BUS 201

Organisational Behaviour

2

C

PM 103

STA 201

Statistics for Project Managers

2

C

STA 102

PM 205

Project Cost Estimating and Budgeting

3

C

ACC 201

GST 201

Entrepreneurship Studies I

2

C

None

PM 291

SIWES I

0

C

Pass/Fail, logged

Total Units This Semester

17

Weekly Teaching Scheme of Work

Weeks

Topics / Learning Activities

Weeks 1-3

Project management principles: the ten PMBOK knowledge areas overview.

Weeks 4-6

Scope definition, work breakdown structures, integration management.

Weeks 7-9

Financial accounting basics for project managers.

Weeks 10-12

Organisational behaviour: motivation, group dynamics, leadership styles.

Weeks 13-14

Cost estimating techniques and budgeting.

Week 15

Integrated case study assessment.

Coursework Requirements

Scope statement and WBS exercise

Accounting problem sets

Organisational behaviour case study

Cost estimate assignment

SIWES

Students begin structured industrial exposure (SIWES) with a project-based organisation, in accordance with the approved SIWES arrangement.

Semester 4 — 200 Level, Second Semester

Academic Theme: Planning and Scheduling Techniques

Registered Courses

Code

Course Title

Units

Status

Prerequisite

PM 202

Project Scheduling and Time Management

3

C

PM 203

PM 204

Project Quality Management

2

C

PM 201

PM 206

Project Procurement and Contract Management

3

C

PM 205

BUS 202

Human Resource Management

2

C

BUS 201

ECO 201

Managerial and Business Economics

2

C

ECO 102

PM 208

Project Management Software Applications I (MS Project)

2

C

PM 202

GST 202

Entrepreneurship Studies II

2

C

GST 201

Total Units This Semester

16

Weekly Teaching Scheme of Work

Weeks

Topics / Learning Activities

Focus

Critical path method and network scheduling; quality planning and control tools; procurement planning and contract types; human resource management; managerial economics; hands-on scheduling software practice.

Coursework Requirements

Network diagram/CPM exercise

Quality management plan

Procurement plan assignment

MS Project schedule file

Semester Project: "Mini Project — Full Schedule and Budget for a Small Project"

Students produce a complete WBS, network schedule, resource plan and budget for a small hypothetical project, using project management software.

Semester 5 — 300 Level, First Semester

Academic Theme: Risk, Finance and Stakeholder Management

Registered Courses

Code

Course Title

Units

Status

Prerequisite

PM 301

Project Risk Management

3

C

PM 202

PM 303

Project Finance and Investment Appraisal

3

C

PM 205

PM 305

Stakeholder and Communications Management

3

C

PM 203

PM 307

Research Methods in Project Management

2

C

STA 201

BUS 301

Strategic Management

2

C

BUS 202

PM 309

Project Management Software Applications II (Primavera)

2

C

PM 208

PM 311

Contract Law for Project Managers

2

C

PM 206

PM 391

SIWES II

0

C

Pass/Fail, logged

Total Units This Semester

17

Weekly Teaching Scheme of Work

Weeks

Topics / Learning Activities

Weeks 1-3

Risk identification, qualitative and quantitative risk analysis, risk response planning.

Weeks 4-6

Investment appraisal techniques: NPV, IRR, payback period; project finance structures.

Weeks 7-9

Stakeholder analysis, engagement planning and communications management.

Weeks 10-11

Research methods: quantitative and qualitative approaches for project studies.

Weeks 12-13

Strategic management and alignment of projects to organisational strategy.

Week 14

Contract law essentials.

Week 15

Integrated case study assessment.

Coursework Requirements

Risk register and response plan

Investment appraisal assignment

Stakeholder engagement plan

Research proposal outline

Primavera schedule file

Semester 6 — 300 Level, Second Semester

Academic Theme: Agile, Programme and Portfolio Management

Registered Courses

Code

Course Title

Units

Status

Prerequisite

PM 302

Agile and Scrum Project Management

3

C

PM 301

PM 304

Programme and Portfolio Management

3

C

PM 303

PM 306

Monitoring, Evaluation and Project Control

3

C

PM 305

PM 308

Sustainability and Community-Responsive Project Management

2

C

None

PM 310

Legal and Ethical Issues in Project Management

2

C

PM 311

PM-E1

Specialisation Elective (choose one; see options below)

3

E

Varies

Total Units This Semester

16

Specialisation / Pathway Options

Code

Option Title

PMT-A01

Construction Project Management Fundamentals

PMT-B01

Oil and Gas Project Management Fundamentals

PMT-C01

ICT Project Management Fundamentals

PMT-D01

Development and NGO Project Management Fundamentals

Weekly Teaching Scheme of Work

Weeks

Topics / Learning Activities

Focus

Agile principles, Scrum roles/ceremonies/artefacts; programme and portfolio management; monitoring and evaluation frameworks (logframes, KPIs, earned value); sustainability and community engagement in projects; ethics and legal issues.

Coursework Requirements

Agile sprint simulation

Portfolio prioritisation exercise

M&E framework assignment

Sustainability case study

Ethics case study

Semester Project: "Community-Responsive Project Proposal"

Students design a small project proposal for a host-community context (e.g. within the Oro/Oron Nation area), incorporating stakeholder engagement and sustainability considerations.

Semester 7 — 400 Level, First Semester

Academic Theme: Specialised Project Management Practice

Students formally declare one specialisation pathway at the start of Semester 7, carried through Semester 8: (A) Construction & Infrastructure Project Management, (B) Oil & Gas/Energy Project Management, (C) ICT & Digital Project Management, or (D) Development/NGO Project Management.

Registered Courses

Code

Course Title

Units

Status

Prerequisite

PM 401

Advanced Project Planning and Control

3

C

PM 306

PM 403

Project Leadership and Team Management

3

C

PM 302

PM 405

Professional Practice and Certification Preparation (PMP/PRINCE2)

2

C

None

PM 407

Research Project I (Proposal Development)

3

C

PM 307

PM 409

International Project Management Standards (PMI, PRINCE2, IPMA)

2

C

None

PM-P1

Pathway Course (choose track A, B, C or D)

3

E

Declared pathway

Total Units This Semester

16

Specialisation / Pathway Options

Code

Option Title

A - PM 411

Construction Project Delivery and Site Management

B - PM 413

Oil and Gas Project Execution and HSE Management

C - PM 415

Agile Software and ICT Project Delivery

D - PM 417

Development Project Design, M&E and Donor Compliance

Weekly Teaching Scheme of Work

Weeks

Topics / Learning Activities

Fieldwork

At least one supervised site visit or organisational case study relevant to the declared pathway shall be undertaken.

Coursework Requirements

Advanced schedule/control exercise

Leadership case study

Certification mock examination

Research proposal

Pathway case study report

Semester 8 — 400 Level, Second Semester

Academic Theme: Capstone and Professional Readiness

Registered Courses

Code

Course Title

Units

Status

Prerequisite

PM 402

Project Management Capstone (Comprehensive Project Simulation)

4

C

PM 401

PM 404

Research Project II (Dissertation)

4

C

PM 407

PM 406

Entrepreneurship and Consultancy in Project Management

2

C

None

PM-P2

Pathway Course (continuation of declared track)

3

E

Declared pathway

PM 408

Seminar in Project Management

1

C

None

Total Units This Semester

14

Specialisation / Pathway Options

Code

Option Title

A - PM 412

Construction Contract Administration

B - PM 414

Oil and Gas Project Cost and Schedule Control

C - PM 416

DevOps and Digital Product Delivery

D - PM 418

Grant Writing and Donor Reporting

Weekly Teaching Scheme of Work

Weeks

Topics / Learning Activities

Requirements

Complete a comprehensive capstone project simulating full project life-cycle management (initiation through closure); complete and defend a research dissertation; prepare a professional portfolio; present both before a panel.

Graduation Portfolio Requirements

Transcript

Capstone project report

Dissertation

SIWES evidence

Professional certification preparation record

Selected coursework portfolio

D. Common Teaching and Assessment Schedule

A normal fifteen-week teaching semester shall generally follow:

Week(s)

Activity

Week 1

Orientation / course introduction.

Weeks 2-5

Core theory and guided tutorials.

Week 6

Continuous assessment / test.

Weeks 7-10

Advanced theory plus case studies and software/practical labs.

Week 11

Practical/coursework assessment.

Weeks 12-13

Integrated problem-solving/project simulation work.

Week 14

Revision and project presentation.

Week 15

Final revision / course completion.

Examination period

As separately published by the University.

D.1 Coursework Principle

Every course should normally contain a balanced combination of:

Individual assignments

Group problem-solving/project simulations

Tutorials

Software/practical labs (e.g. MS Project, Primavera)

Case studies

Quizzes/tests

Stakeholder role-play exercises

Technical reports

Presentations

Lecturers shall not rely exclusively on final examinations.

E. Lecturer Course-File Requirement

For every course, you shall compile and maintain a course file containing:

Course specification (aims, CLOs, credit load, contact hours).

Course Learning Outcomes (CLOs), mapped to Programme Outcomes (PM-PO1-PM-PO12).

Weekly scheme of work.

Lecture materials.

Tutorial questions.

Software/practical laboratory manual, where applicable.

Assignment and case-study questions.

Quiz/test instruments.

Examination paper.

Marking scheme.

Attendance record.

Student feedback.

CLO attainment analysis.

PM-PO mapping evidence.

Course review report.

F. Student Weekly Study Model (For Lecturer Awareness)

Students are expected to plan their week across lectures, tutorials, software/practical labs, independent study, coursework and group work, and to maintain a personal Project Management Learning Portfolio across the eight semesters. Lecturers should design workloads with this model in mind, and remind students to retain evidence (case studies, software outputs, SIWES evidence) for later PMP/PRINCE2 certification use.

Appendix I: Course Learning Outcome (CLO) to Programme Outcome (PM-PO) Mapping — Template and Worked Example

Every course specification in your course file (Section E) must include a CLO-PO mapping matrix of this form. A worked example is provided below.

Worked Example — PM 401: Advanced Project Planning and Control

Course Learning Outcome

Mapped Programme Outcome(s)

CLO1: Develop an integrated project management plan covering scope, schedule and cost baselines.

PM-PO1, PM-PO2, PM-PO3, PM-PO4

CLO2: Apply earned value management to monitor and control project performance.

PM-PO3, PM-PO4, PM-PO5

CLO3: Identify and respond to schedule and cost variances using appropriate control techniques.

PM-PO3, PM-PO4, PM-PO8

CLO4: Communicate project status and control decisions to stakeholders through a professional report.

PM-PO7, PM-PO10

Appendix II: Course Specification Template

Use this template as the first page of every course file (Section E):

Course Code and Title:

Credit Units / Status (Core or Elective):

Pre-requisite(s):

Level and Semester:

Course Aim(s):

Course Learning Outcomes (CLO1-CLOn):

CLO-to-PO Mapping Matrix (see Appendix I):

Weekly Topics (15-week scheme):

Teaching Methods (lecture/tutorial/software-lab/case-study ratio):

Assessment Breakdown (continuous assessment % / examination %):

Recommended Textbooks and References:

Required Equipment/Software (e.g. MS Project, Primavera):

Appendix III: Recommended Textbooks and References

This master reading list supports the 'Recommended Textbooks and References' field of the Course Specification Template (Appendix II). Lecturers shall select and cite the specific titles, editions and chapters relevant to their own course in the course file, and may supplement with current PMI/PRINCE2/APM/IPMA publications and case studies as appropriate.

Appendix III.1 — B.Sc. Project Management

Project Management Foundations and Standards

Project Management Institute (PMI) — A Guide to the Project Management Body of Knowledge (PMBOK Guide), current edition.

AXELOS — Managing Successful Projects with PRINCE2, TSO.

Association for Project Management (APM) — APM Body of Knowledge, current edition.

International Project Management Association (IPMA) — Individual Competence Baseline (ICB), current edition.

General Project Management Practice

Kerzner, H. — Project Management: A Systems Approach to Planning, Scheduling and Controlling, Wiley.

Meredith, J.R., Shafer, S.M. and Mantel, S.J. — Project Management: A Strategic Managerial Approach, Wiley.

Maylor, H. — Project Management, Pearson.

Scope, Schedule and Cost Management

Lock, D. — Project Management, Routledge.

Gray, C.F. and Larson, E.W. — Project Management: The Managerial Process, McGraw-Hill.

Risk, Quality and Procurement Management

Hillson, D. and Simon, P. — Practical Project Risk Management: The ATOM Methodology, Management Concepts Press.

Turner, J.R. — The Handbook of Project-Based Management, McGraw-Hill.

Agile, Programme and Portfolio Management

Schwaber, K. and Sutherland, J. — The Scrum Guide, Scrum.org (current edition).

Layton, M.C. and Ostermiller, S.J. — Agile Project Management for Dummies, Wiley.

Project Management Institute (PMI) — The Standard for Program Management, current edition.

Finance, Economics and Accounting for Project Managers

Lasher, W.R. — Practical Financial Management, Cengage.

Brigham, E.F. and Houston, J.F. — Fundamentals of Financial Management, Cengage.

Organisational Behaviour, Leadership and Human Resource Management

Robbins, S.P. and Judge, T.A. — Organizational Behavior, Pearson.

Armstrong, M. — Armstrong's Handbook of Human Resource Management Practice, Kogan Page.

Sector-Specific Practice (Specialisation Tracks)

Construction: Walker, A. — Project Management in Construction, Wiley-Blackwell.

Oil and Gas: Merrow, E.W. — Industrial Megaprojects: Concepts, Strategies and Practices for Success, Wiley.

ICT: Wysocki, R.K. — Effective Project Management: Traditional, Agile, Extreme, Wiley.

Development/NGO: Gosling, L. and Edwards, M. — Toolkits: A Practical Guide to Monitoring, Evaluation, Planning and Impact Assessment, Save the Children.

Research Methods and Professional Practice

Kothari, C.R. — Research Methodology: Methods and Techniques, New Age International.

PMI — Code of Ethics and Professional Conduct, current edition.