AOU Civil Engineering (RTTI) — Curriculum

5-year B.Eng. structure · 198 units · CCMAS alignment · Draft

AKPAKIP ORO UNIVERSITY (AOU)
Faculty of Engineering — Department of Civil Engineering
CIVIL ENGINEERING CURRICULUM (Draft)
Railway, Tunnel and Transport Infrastructure (RTTI) Option

1. Preamble
Five-year B.Eng. Civil Engineering with RTTI option. Designed to meet NUC CCMAS and COREN professional requirements. Course codes, units and status provisional until reconciled with official CCMAS.

2. Aims and Objectives
• Competent engineers for railways, tunnels and transport infrastructure.
• Strong foundations in mathematics, physical sciences, mechanics and materials.
• Professional practice, ethics, safety and sustainability.
• Preparation for COREN registration, employment or postgraduate study.

3. Graduate Competencies
Engineering science · Structural design · Geotechnical engineering · Highway engineering · Railway engineering · Tunnel engineering · Construction management · Sustainability · Digital engineering · Professional practice.

4. Programme Structure
80 courses · 198 units across 10 semesters.
Year 1 (100): 34 units · Year 2 (200): 43 · Year 3 (300): 41 · Year 4 (400): 40 · Year 5 (500): 40.

Option-specific emphasis (Years 3–5): Railway Engineering I & II · Tunnel Engineering Fundamentals · Tunnel Construction and Support Systems · Railway and Highway Systems Integration · Advanced Bridge or Tunnel Design · Technical Electives from railway/tunnel/transport list.

5. Assessment Framework
Written examinations · Assignments · Laboratory reports · Surveying fieldwork · Design projects · Presentations/defences · Industrial training · Final-year project.

6. Industrial Training and Projects
SIWES (Sem 8, 3 units) · Research Project I & II · Final-Year Design Project and Defence (Sem 10, 4 units).

7. Resource Requirements for Accreditation
Human resources · Surveying · Materials / Geotechnical / Hydraulics / Structural laboratories · Transport infrastructure tools · Digital facilities (CAD, GIS) · Library · Industry partnerships.

8. Quality Assurance and CCMAS Alignment
Map courses to NUC CCMAS · Verify codes/units/prerequisites · COREN checks · Curriculum review committee · Evidence pack for staffing, facilities and industrial training.

Companion documents: Students' Handbook and Lecturers' Handbook (same review cycle).
Draft for departmental, Faculty and Senate review.
Ojei Bari Avañ Ki

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