AOU Agricultural & Bioresources Engineering — Curriculum

5-year B.Eng. · 208 units · FSP/EWE options · CCMAS alignment · Draft

AKPAKIP ORO UNIVERSITY (AOU)
Faculty of Engineering — Department of Agricultural and Bioresources Engineering
CURRICULUM (Draft)
Agricultural and Bioresources Engineering
(Food, Seafood and Packaging; Environmental and Waste-to-Energy options)

1. Preamble
Five-year B.Eng. Agricultural and Bioresources Engineering with two options. Meets NUC CCMAS and COREN requirements. Codes/units provisional until reconciled with official CCMAS.

2. Aims and Objectives
• Agricultural and bioresources engineers who design systems for farming, food, water, waste and bioenergy.
• Two options: Food, Seafood and Packaging (FSP); Environmental and Waste-to-Energy (EWE).
• Strong foundations in biology, soil and water science, mechanics and thermo-fluids.
• Preparation for COREN registration, employment or postgraduate study.

3. Graduate Competencies
Agricultural engineering science · Soil and water · Farm power and machinery · Bioresources and biology · Food science and processing · Post-harvest and cold chain · Seafood · Packaging · Waste and bioenergy · Environment, sustainability and professional practice.

4. Programme Structure
80 courses · 208 units across 10 semesters.
Year 1: 37 · Year 2: 45 · Year 3: 44 · Year 4: 43 · Year 5: 39.

Track: Core · FSP · EWE.

5. Option Emphasis
FSP: food process engineering, seafood processing, packaging materials/design, food preservation & safety, cold chain, food product development, food plant design.
EWE: waste management, anaerobic digestion, biogas, waste-to-energy conversion, bioreactor design, composting, solid waste engineering, landfill & waste facility design, EIA.
Shared: soil & water, irrigation, post-harvest, agricultural machinery, environmental engineering, SIWES, final design project.

6–9. Assessment framework · Industrial training & projects · Resource requirements · Quality assurance & CCMAS alignment
Companion documents: Students' Handbook and Lecturers' Handbook.

Draft for departmental, Faculty and Senate review.
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