

Department of Agricultural and Bio-Resources Engineering
Faculty of Engineering
Ahmadu Bello University, Zaria

**AGRICULTURAL AND BIO-RESOURCES ENGINEERING EDUCATIONAL
OBJECTIVES**

In line with the philosophy of the Department and the objectives of the University as articulated in Article 4 of its 1962 and 1975 Laws, and in consistency with the aforementioned mission and vision of both Ahmadu Bello University and Agricultural and Bio-Resources Engineering Department, the Programme Educational Objectives (**PEOs**) are to:

1. train students through a well-established training curriculum and facilities that reflect professionalism in agricultural and bio-resources engineering practice (**PEO1**);
2. provide sufficient knowledge to apply engineering principles to the practice of agriculture, feedstock production, food processing and conservation of land and water resources (**PEO2**);
3. provide sufficient knowledge in agricultural power and machinery usage and management (**PEO3**);
4. provide sufficient knowledge in bio-product process engineering, biotechnology, biofuels, waste treatment and by-product utilization (**PEO4**);
5. train competent professionals with sufficiently broad-based knowledge to tackle day to day Agricultural and Bio-Resources Engineering problems and continuously relate their acquired skills to the needs of the society (**PEO5**);
6. provide sufficient knowledge in tools and machineries development that assist in reducing drudgery in production and encourage import substitution (**PEO6**);
7. contribute to value addition in agricultural products and at affordable prices to end-users (**PEO7**).

The Programme Educational Objectives (PEOs), published in the Undergraduate Student Handbook and Departmental Web Page, describe the professional accomplishments that are expected of graduates of our programme after a few years of completing the programme. They are formulated in line with the requirements of COREN Outcome Based Education (OBE) Benchmark Minimum Academic Standards (BMAS) and Accreditation Scoring Criteria for Undergraduate Engineering Programmes in Nigerian Universities. These objectives were developed after a series of consultations by the Department, taking into consideration, as much as possible, inputs from stakeholders.

Programme Educational Objectives Consistency with ABU Vision and Mission

The consistency of the PEOs for the Bachelor of Engineering in Agricultural and Bio-Resources Engineering with the Vision and Mission of the Ahmadu Bello University are as follows:

PEO1: By producing competent engineers who are trained using a well-established training curriculum and facilities that reflect professionalism in agricultural and bio-resources engineering practices, the department is contributing to the vision of Ahmadu Bello University *in*

the area of being a world-class university comparable to any other, engaged in imparting contemporary knowledge, using high-quality facilities and multi-disciplinary approaches, to men and women of all races, as well as generating new ideas and intellectual practices relevant to the needs of its immediate community, Nigeria and the world at large.

PEO2: By providing sufficient knowledge to apply engineering principles to the practice of agriculture, feedstock production, food processing and conservation of land and water resources, the department is contributing to the vision of Ahmadu Bello University in the area of *producing high-level human power and enhance capacity-building through re-training in order to meet the needs of the catchment area, Nigeria and the rest of the world.*

PEO3: By producing competent Engineers with sufficient knowledge in agricultural power and machinery usage and management, the department is contributing to the mission of Ahmadu Bello University in *producing high-level human power and enhancing capacity-building through re-training in order to meet the needs of the catchment area, Nigeria and the rest of the world.*

PEO4: By producing competent engineers with sufficient knowledge in bio-product process engineering, biotechnology, biofuels, waste treatment and by-product utilization, the department is contributing to the mission of Ahmadu Bello University in *advancing the frontiers of learning and break new grounds while still promoting the African local traditions and cultures.*

PEO5: By training competent professionals with sufficiently broad-based knowledge to tackle day to day Agricultural and Bio-Resources Engineering problems and continuously relate their acquired skills to the needs of the society, the department is contributing to the mission of Ahmadu Bello University in *advancing the frontiers of learning, and break new grounds, through teaching, research, and dissemination of knowledge of the highest quality.*

PEO6: By producing Engineers with sufficient knowledge in tools and machineries development that assist in reducing drudgery in production and encourage import substitution, the department is contributing to the mission of Ahmadu Bello University in *producing high-level human power and enhancing capacity-building through re-training in order to meet the needs of the catchment area, Nigeria and the rest of the world.*

PEO7: By training experienced Agricultural and Bio-Resources Engineers that contribute to value addition in agricultural products and at affordable prices to end-users. the department is contributing to the mission of Ahmadu Bello University in *producing high-level human power and enhancing capacity-building through re-training in order to meet the needs of the catchment area, Nigeria and the rest of the world.* One of the greatest needs of the immediate community and Nigeria is trained Engineers that will add value to agricultural produce coming from the vast arable land and to mineral resources deposited in different communities in the country.