OLUSEGUN AGAGU UNIVERSITY OF SCIENCE AND TECHNOLOGY

CENTRE FOR BLUE ECONOMY AND INNOVATION

DOCTORATE DEGREE IN ENVIRONMENTAL MANAGEMENT (*DEM*)

INTRODUCTION

The Doctorate Degree in Environmental Management (DEM) programme is designed to provide training needed for an understanding of the environmental issues. It builds upon this foundation by exploring specific theory and philosophy of environmental management, research methods in environmental management, computer applications in environmental management, population and gender issues in environmental management, environmental law, environmental policies and decision making, impacts of science and technology on the environment, and thesis etc.

Philosophy

The primary focus of the programme is the training of personnel to the highest professional standards in the identification and resolution of environmental issues.

The programme will provide higher capacity skilled manpower, trained specifically for finding solutions to teething environmental problems through identification by applying scientific tools and skills to solving real life problems and better management of environmental hazards.

Aim

To impart relevant knowledge and skills needed for promotion and sustenance of the ecosystem balance in restoring healthy biodiversity.

Objectives

i. Impart the basic knowledge of physical, sociological and biological theories, concepts and principles as well as the application of these in the practice of environmental management.

ii. To impart skills and relevant methods used in the identification, classification and management of environmental problems.

iii. To impart to the students, attitude of teamwork, leadership and scientific enquiry in relation to every aspect of their professional activities as they affect the environment.

iv. To equip students with relevant knowledge and skill for advanced training and research in environmental management.

Admission Requirement

1. Five O'level credits at no more than two sittings including Mathematics and English Language.

2. Masters in Environmental Planning and Protection or any Environmental related discipline obtained with a CGPA of not less than 3.00 from any approved institution.

3. Prepare and submit to the Centre a brief satisfactory statement of area of intended research

4. Candidate shall demonstrate ability to carry out independent research with minimum supervision.

Thesis Requirements

Once the course work is completed, candidates begin working on their thesis.

This has three stages: Seminar I, Seminar II and final stage for external examination.

Duration of the programme

DEM is offered on full time basis. It runs for a minimum of six semesters and a maximum of ten semesters. At the end of the programme, the thesis is subjected to external examination duly organised for that purpose by the Postgraduate School

Table 1: Course Title and Credit Units

S/No	Course code	Course Title	Unit	Status
1	**DEM 901**	**Theory and Philosophy of Environmental Management**	3	C
2	**DEM 903**	**Environmental Management Research Methodologies**	3	C
3	**DEM 904**	**Environmental Law**	3	E
4	**DEM 905**	**Environmental Policy and Decision making**	3	E
5	**DEM 906**	**Population and Gender issues**	3	E
6	**DEM 907**	**Integrated Applications of Geospatial Data**	3	E
7	**DEM 910**	**Postgraduate Seminar I (Proposal)**		C
8	**DEM 911**	**Postgraduate Seminar II (Post Field)**		C
9	**DEM 950**	**Thesis**	6	C
		TOTAL CREDIT	15	

6 units of compulsory courses, 3 units of electives, 6 units of thesis = 15 units Total

Course Description

1. DEM 901: Theory and Philosophy of Environmental Management. 3 Credit Units (C)

Theory and philosophy of management as a course exposes the students to the basic fundamental theoretical issues that are essential to the understanding of environmental management with the view of maintaining sustainable environment. The specific topics include origin of environmental philosophy, gender, development and nature, perception and environmental resource management, environmental cognition and behaviour, system Theory, ethics and environment, equator principle, sustainable development, polluter pay principle, classical and neoclassical thought on resources exploitation and management and indigenous ecological knowledge.

2. DEM 903: Environmental Management Research Methodologies: 3 Credit Units (C)

This course shall focus on various research methods, fields and laboratory techniques for analysis of the aspects of the environment (air, water, soil, flora, fauna and other environmental resources). Topic to be covered include: types of environmental research, environmental research design, model steps of environmental research, environmental research problem definition, role of literature review in environmental research, theories in environmental studies, hypothesis formulation and testing in environmental studies, data collection and analysis in environmental studies as well as presentation of environmental research findings. Other topics to be covered are instrumentation in environmental research, instrumentation for field observations, laboratory techniques and instrumentation, remote sensing and GIS application in environmental investigations.

3. DEM 904: Environmental Law: 3 Credit Units (C)

This course shall focus on various laws enacted promulgated to plan and protect the environment are to be examined with the view to establishing their strength and weakness, and identify areas of improvement: emphasis is to be given to all legislations relating to the various components of the Nigerian environment such as water, land atmosphere, vegetation and mineral resources. Other issues to be covered include Nigerian Land Use Decree and how the provisions of the decree are affecting land administration in Nigeria constitute significance issues are to be covered in the course.

4. DEM 905: Environmental Policy and Decision making: 3 Credit Units (C)

This course explores the protection of long-term natural resource use and **environmental** quality through changes in human behavior and **policy**. Students study the economic and social forces that impact **decision making** across society. The Essentials of Environmental Policy; Environmental Communication, Decision Support and Participatory Process, Leadership for change (Personal leadership competencies and styles; Group dynamics, inclusion, and team facilitation; Strategies for engaging diverse stakeholders; and the capacity of creative leadership to facilitate large-scale systemic change).

5. DEM 906: Population and Gender issues: 3 Credit Units (C)

This is an advanced course focusing on population and resources relationships and how such relationships impact the environment. The areas to be covered includes, dynamics of human population, population growth and utilization, labour and resources, theories of population and resources relationship, measurement of resources consumption and environmental degradation, impacts of population on the environment and gender issues in sustainable environmental conservation and measurement.

6. DEM 907: Integrated Applications of Geospatial Data: 3 Credit Units (C)

This course is to examine the major types of geospatial data (remote sensing, topographic and GPS) and their characteristic features and utilities for applications in GIS environment. Major application areas of GIS based geospatial data integration such as buffering, neighbourhood and overlay operations, digital terrain evaluation, other modelling systems, routing (navigational) operations and locational analysis.

7. DEM 910: Postgraduate Seminar I

In this course, students shall develop a research proposal and get it defended before a departmental seminar board. The proposal should be in the student's area of specialization.

8. DEM 911: Postgraduate Seminar II

In this course, students are to make presentation of the major findings and conclusions of the research work they have undertaken for their Doctorate thesis. It IS thus a follow-up of the presentation to be made in **DEM 910**.

9. DEM 950: Thesis: 6 Credit Units (C)

Students are to write a thesis under guided supervision of two supervisors, which should be a product of their own research work undertaken in line with the research proposal he/ she has developed and defended.