

Graduate Programmes in Department of Environmental Studies, Geography and Planning

Masters and PhD Studies

The Department of Environmental Studies, Geography and Planning at Maasai Mara University offers graduate programmes designed to equip students with the skills and knowledge necessary to excel in various environmental fields. Our programmes lead to Masters and PhD degrees, providing a strong foundation for both academic and professional careers.

Masters Programmes

MSc. Environmental Science

The Master of Science programme is structured as a two-year degree. It completion of 60 total credit hours, comprising 54 hours of coursework across a minimum of 18 courses, plus a 6-credit thesis component. Throughout the programme, students will complete 754 instructional hours combining theoretical and practical learning.

The programme is divided into two distinct phases. The first year is dedicated to coursework at the host institution, during which students engage in core courses before selecting one of eight specialized tracks. These specializations reflect the programme's interdisciplinary nature, where students can choose to specialize in areas such as Environmental Biology, Environmental Economics, Environmental Health, Environmental Law, Environmental Earth Sciences, Environmental Planning and Management and Human Ecology.

In the second year, students transition to the research phase of their studies. This period focuses on independent research culminating in a thesis, which must be submitted by the end of the second year. Throughout both phases, students benefit from a diverse teaching methodology that emphasizes both theoretical understanding and practical application.

The programme structure spans four semesters, with the first two semesters concentrated on coursework. During the first semester, students focus on core courses that provide a foundation in environmental studies. The second semester introduces specialized coursework aligned with their chosen track. The third and fourth semesters are dedicated to research activities and thesis preparation, allowing students to develop expertise in their selected specialization.

This structured progression ensures students develop both broad environmental knowledge and expertise in their chosen specialization, while

gaining valuable research experience. The combination of coursework and research components prepares graduates for both academic and professional careers in environmental fields.

Admission Requirements for MSc. Environmental Science

Admission to the Master of Science in Environmental Studies programme is governed by the common regulations for Masters degrees in the School of Natural Resources Environmental Studies and Agriculture. Candidates seeking admission must meet one of two qualifying criteria. First, they must possess at least a second-class honors degree (upper division) in relevant fields including Environmental Studies, Environmental Management, Geography, Wildlife Management, Agriculture, Sociology, Forestry Management, or Parks Management. This degree must be from Maasai Mara University or an equivalent qualification from a university recognized by the Maasai Mara University Senate. Alternatively, candidates holding a second-class honors degree (lower division) in any of the aforementioned fields may be considered for admission, provided they have accumulated a minimum of two years of relevant professional experience. This dual pathway to admission ensures both academic excellence and recognizes the value of practical experience in the environmental field, allowing for a diverse student body that brings both theoretical knowledge and practical insights to the programme.

Programme Structure for the Master of Science in Environmental Science

Duration:

Two (2) academic years

Credit Requirements:

- Total credits required for graduation: 60 credits
- Course work: 54 credits
- Thesis: 6 credits
- Minimum number of courses: 18

Programme Structure:

Year One - Semester 1: Core Courses (15 credits) All students must complete:

- Environment and Development (3 credits)
- Earth System Science I (3 credits)
- Research Methods and Field Course (2 credits)
- Ecosystem Structure and Function (3 credits)

- Principles of Environmental Law (2 credits)
- Environmental Impact Assessment (2 credits)

Year One - Semester 2: Specialization Courses (39 credits) Students choose one of eight specializations:

1. Environmental Biology
2. Environmental Economics
3. Environmental Health
4. Environmental Information Systems
5. Environmental Law
6. Environmental Earth Sciences
7. Environmental Planning and Management
8. Human Ecology

Year Two

- Dedicated to research activities in chosen specialization
- Completion and submission of thesis (SES 899: Research Project and Thesis - 6 credits)

Thesis Requirements

- Mandatory research project and thesis in the chosen area of specialization
- Conducted throughout both semesters of the second year
- Worth 6 credits of the total programme requirements

Master of Environmental Planning and Management

This programme emphasizes practical experience and multidisciplinary research, preparing students to address contemporary planning challenges through integrated approaches. The programme's core mission is to develop skilled environmental planners capable of guiding society through policy analysis, plan formulation, and implementation across various sectors and scales. The curriculum, crafted by experts in Environmental Planning and Management, emphasizes critical thinking, communication skills, and self-directed learning while incorporating practical planning techniques and tools.

At its philosophical foundation, the programme strives for academic excellence through a comprehensive approach that encompasses teaching, research, innovation, extension, and technology transfer. This multifaceted approach aims to promote sustainable development across social, economic, political, and environmental dimensions.

The programme distinguishes itself through several key features. It offers a unique, multidisciplinary research-led curriculum that responds to contemporary planning challenges. Students engage with integrated

coursework spanning social, economic, political, and environmental sciences, enabling them to understand planning processes within Kenyan, regional, and global contexts. This comprehensive approach allows students to develop expertise in their chosen areas while maintaining a broad understanding of environmental planning principles.

A significant strength of the programme lies in its practical orientation. Students develop essential professional skills through field and studio work, workshops, role-playing exercises, and case studies. The curriculum emphasizes hands-on experience and real-world problem-solving, complemented by close interaction with faculty and practicing professionals. While firmly grounded in the Kenyan context, the programme incorporates international planning perspectives and approaches, preparing graduates for both local and global professional opportunities.

Admission Requirements for Master Environmental Planning and Management

Hold at least a second-class honors degree (upper division) in one of the following fields: Environmental Planning and Management, Environmental Studies, Urban and Regional Planning, Science/Arts in Geography, Economics, Surveying and Photogrammetry, Land Economics, Building Economics, Estate Management, Housing Technology, Engineering, Sociology, Agriculture, Forestry and Wildlife, Zoology, Botany, Architecture, Law.

Alternatively, candidates with a second-class honors degree (lower division) in any of the above fields may be considered for admission if they have acquired at minimum two years of relevant professional experience.

All degrees must be from institutions recognized by the Maasai Mara University Senate.

Programme Structure

Duration: 2 years full-time

Credit Requirements: 54 credits

Required Core Courses:

Planning Theory

Management Theory and Techniques

Rural Planning Studio

Research Methodology and Communication

Statistics for Environmental Planners

Development Control

Urban Planning Studio

Environmental Impact Assessment and Auditing

Project Planning and Management

Regional Planning Studio

Environmental Law and Policy

Emerging Issues in Environmental Planning and Management

Research Project

Elective Options:

Environmental Action Planning
Resource Use Planning
Infrastructural Planning and Development
Energy Planning and Management
Waste Management Planning
Participatory and Advocacy Planning
Land Administration and Management
Water Resource Planning and Management
Environmental Systems Analysis, Monitoring, and Modeling
Integrated Environmental Management
Disaster Management
Remote Sensing and GIS Application
Environmental Economics
Conflict Management and Resolution

Thesis/Non-thesis Options

Typically, students will have to prepare a research project equivalent to 3 units in their fourth semester.

Master of Science in Land Resource Management

The Master of Science in Land Resources Management stands as a distinctive interdisciplinary graduate programme designed for students seeking to expand their understanding of land and natural resources or pursue specialized education in the technical, social, or management aspects of land. The programme's foundation rests on a comprehensive definition of land resources, encompassing all physical elements that constitute a nation's natural wealth - from climate and forests to minerals and wildlife - recognizing their fundamental importance to economic, social, and cultural development.

This innovative programme provides a unique platform for interdisciplinary graduate study and research, aiming to equip students with both a broad understanding of land resources and detailed knowledge of related scientific, technical, socio-political, legal, and economic considerations. The curriculum distinguishes itself through several key features that emphasize practical, research-led training in land resources management.

The programme's distinctive character emerges from its multidisciplinary approach, which aligns with contemporary land use practices' evolving needs. Through carefully structured course units spanning natural, social, economic, political, and environmental sciences, students gain insight into planning processes, policies, and tools within Kenyan, regional, and global contexts. This integrated approach allows students to develop expertise in their chosen areas while maintaining a comprehensive understanding of land resource management principles.

At its core, the programme aims to train experts who will guide society in land resource planning and management across various levels and sectors. The curriculum emphasizes the interconnected nature of land resources, fostering an understanding of how different elements of the natural environment interact and influence human development and sustainability.

The programme prepares graduates to address complex challenges in land resource management while contributing to sustainable development initiatives at local, national, and international levels. The combination of theoretical knowledge and practical skills ensures graduates are well-equipped to take on leadership roles in various sectors related to land resource management and environmental conservation

Admission Requirements for Master of Science in Land Resource Management

Prospective students must meet specific academic criteria: either holding a Bachelor's degree with at least Second Class Honours (Upper Division) in a relevant field from a recognized university, or possessing a Bachelor's degree with Second Class Honours (Lower Division) complemented by a minimum of two years of relevant work experience after graduation.

Duration: 2 years full-time

Credit Requirements: 24 credits (12 units per year)

Required Core Courses:

Year 1 Semester 1:

Management Theory and Techniques
Research Methodology and Communication
Applied Statistics and Computer Application
Land Use and Natural Resource Management
Project Planning, Implementation and Management
Spatial Analysis and Modeling Techniques
Emerging Issues in Land Planning and Management
Agricultural Systems Planning and Management

Elective Options:

Land Degradation and Productivity Management
Meteorology and Climatology
Irrigation and Drainage Technologies
Soil Resource Management
Water Resource Management
Dry Land Agriculture

Year 2:

Thesis:

Every student must complete a thesis in the second year of study equivalent to 12 units.

Comprehensive Examination Requirements:

The general regulations for the Master's degree in the School of Tourism and Natural Resource Management shall apply. The examination consists of two parts:

Part I:

Each course shall be examined by continuous assessment and a final written examination lasting three hours at the end of the semester.

The final examination in each course shall count for 60% and continuous assessment for 40% of the total marks.

Courses of purely practical nature and/or seminars shall be based on continuous assessment only, and total marks will be 100%.

The pass mark for each course is 50%.

A candidate who fails in more than two units at the first attempt in the final examination shall be discontinued.

A candidate shall be permitted to proceed to Part II (research and thesis) only after passing all required courses.

A candidate who fails in one or two units shall be permitted to sit for a supplementary examination in those courses.

A candidate who fails in a supplementary examination shall be discontinued.

Part II:

Thesis submission by the end of the second year of study.

The thesis shall be submitted and examined as specified in the common regulations for the Board of Postgraduate Studies.

Master of Arts in Geography

The Master of Arts (MA) in Geography at Maasai Mara University offers a study of geographical principles and their application in environmental and resource management contexts.

The underlying philosophy of this MA programme is to provide creativity within geographic and geospatial sciences. This is essential in addressing the challenges associated with managing national and regional resources effectively. The rationale behind the programme stems from the recognition of a significant gap in competent training within the field of geography at the

university level. As the country increasingly requires specialists in planning and development, this programme aims to produce well-trained professionals who can analyze spatial arrangements and contribute to effective resource management.

The primary goal of the MA in Geography is to prepare candidates to adeptly utilize geographic knowledge and skills in various professional settings. By the end of the programme, students are expected to demonstrate competence in geographic principles and methodologies, advance their knowledge in specialized fields of geographic inquiry, apply their expertise to meet both personal and professional needs, and actively participate in disseminating geographic knowledge across different academic levels.

Admission Requirements

To be eligible for admission into the MA in Geography programme, candidates must possess relevant Bachelor's degrees or postgraduate diplomas in fields such as Geography, Environmental Studies, or Education, among others. The admissions committee may also consider other qualifications deemed relevant.

Masters Degree in Geography Programme Structure

Duration: 2 years full-time

Credit Requirements: 60 credits

Required Core Courses:

Year One, Semester I: 2 core courses

Year One, Semester II: 2 core courses

Year Two: Master Thesis (spanning Semesters III & IV)

Elective Options:

Year One, Semester I: Choose up to 3 electives

Year One, Semester II: Choose up to 3 electives

Thesis

Thesis: Required (spanning Year Two, Semesters III & IV)