

FACULTY OF FORESTRY AND NATURE CONSERVATION MAKERERE UNIVERSITY



Academic Programmes for Review:

1. BSc Forestry

2. MSc Forestry

By Gerald Eilu



History

- Training in the Forestry profession in Uganda started at Makerere University in 1970.
- Forestry was a department (Forestry Department) in the Faculty of Agriculture and Forestry offering only the B.Sc. Forestry Degree
- The department evolved to become the Faculty of Forestry and Nature Conservation (FFNC) in October 1999 with four departments:
 - Community Forestry & Extension
 - Forest Biology & Ecosystems Management
 - Forest Management
 - Forest Products Engineering

Mandate

The mandate of the Faculty of Forestry and Nature Conservation is: To undertake training, research and outreach activities in forestry and related natural resources fields

Academic Programmes

Bachelor of Community Forestry (3 years)



- Provides the link between forestry and the local community
- Focus is on forestry practices that meet local community needs for forests and tree products for improved livelihoods.
- This programme is very important in attracting the private sector and local community involvement in forestry

B.Sc. Wood Science and Technology (4 years)



- Emphasis is on wood properties, processing, preservation, diversified use, energy and marketing of wood and non-wood products.
- Develops strategies for minimising wastage and misuse of the scarce wood in Uganda
- Aimed at halting the rapid loss of forest and degradation

Various skills



B.Sc. Forestry (4 years)



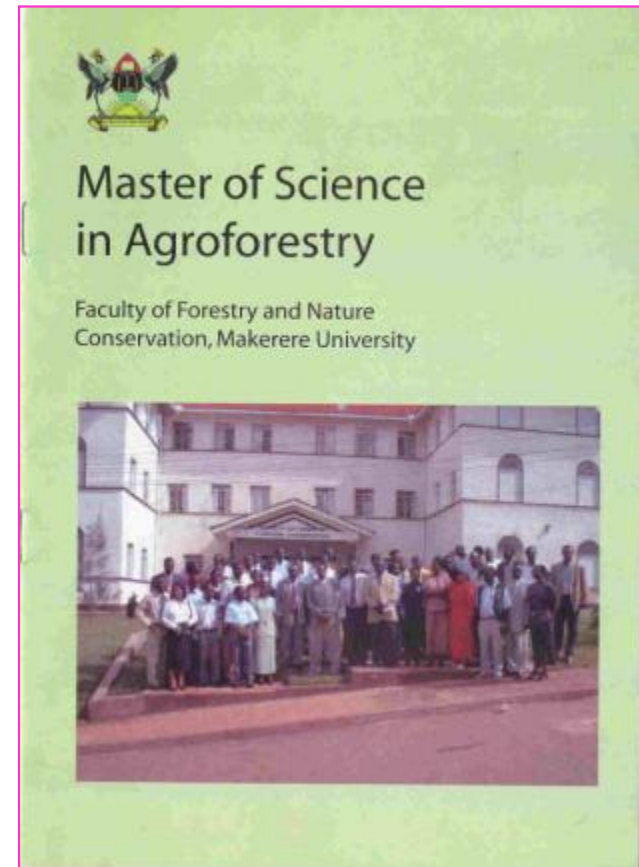
- Provides knowledge and skills for managing forest resources and allied natural resources (biodiversity and environment)
- Prepares graduates to pursue and specialize in various aspects of forest sciences

MSc. Forestry

- This is a two-year program comprising one year of coursework and one year of research and dissertation writing
- Offers training in various aspects of forestry i.e. builds research and analytical capacity needed to address forestry related challenges

MSc. Agroforestry

- Links forestry and agriculture
- The focus is to address farmers needs in a robust and holistic manner
- Aspects covered include:
 - Ecophysiology and tree-crop interactions
 - Agroforestry business
 - Entrepreneurship
 - conservation for sustainable agriculture
- Graduates acquire research and analytical skills for identifying and addressing problems faced by farmers as they seek to increase farm productivity



PhD Forestry/Agro-forestry

- The PhD programmes build on the skills acquired during the MSc Forestry/Agroforestry programmes
- The duration is 3-4 years
- Graduates acquire research and analytical skills that can be used to address various natural resource related problems

Nature of the Academic Programs

- Lectures
- In-Semester Practicals
- Recess term Practical training
- Attachment and skills enhancement
- Exhibitions and academic fairs

Review of BSc. Forestry

- The programme is anchored in the Department of Forest Biology and Ecosystems Management
- This is the department that is responsible for teaching biological courses in forestry and undertaking research in the same.
- Started in 1970
- Course Duration: 3 years up to 1989
- 1990 to date 4 years
- 50 students per class
- 5-10 female students per class

	Yrl: Semester I	
<i>Core Courses</i>		
Codes	Course Name	CUs
FBM1101	Forest Botany & Plant Physiology	3
FOM1102	Introductory Statistics	3
FPE 1101	Biochemistry I	3
FBM1102	Introductory Soil Science	3
<i>Electives</i>		
FOM1101	Introductory Economics	3
FPE 1102	Basic Mathematics	3
	Yrl: Semester II	
<i>Core Courses</i>		
FBM 1201	Introductory Genetics	3
FBM 1202	Introductory Entomology	3
FBM 1203	Introductory Plant Ecology	3
FOM 1201	Basic Computing Skills	3
FPE 1201	Biochemistry II	3
<i>Electives</i>		
AEN 1201	Climatology and Field Engineering	
FPE 1202	Wood Anatomy	
	Recess Term	
FBM 1301	Practical in Forest Soils	3
FOM 1301	Field Attachment for general Forestry practices	5
FPE 1301	Practical Skills in Forestry Survey and GIS	3

	Year II: Semester I	
Core Courses		
Codes	Course Name	CUs
FBM2101	Silviculture	4
FPE2101	Forestry Engineering	4
FOM2101	Biometrics	3
FPE 2102	Surveying	3
Electives		
CFE2103	Forestry Extension Methods	3
FOM2102	Forestry Economics	3
	Year II: Semester II	
Core Courses		
SOS 2201	Soil Fertility & Plant Nutrition	3
FOM 2201	Forest Resource Assessment & GIS	4
FBM 2201	Reproductive Biology & Tree Improvement	3
FBM 2202	Dry Land Forestry Practices	3
Electives		
EEE 2204	Rural Sociology	3
FPE 2201	Work Science and ergonomics	3
	Recess Term	
FBM 2301	Practical Skills in Biodiversity Conservation	3
FBM 2302	Practical Skills in Silviculture	3
FOM 2301	Practical Skills in Forest Resources Assessment and GIS	5
FOM 2302	Computer Skills	3
FPE 2301	Practical Skills in Logging and Sawmilling	3

	Year III: Semester I	
Core Courses		
Codes	Course Name	CUs
CFE 3101	Community Forestry	3
FBM3101	Wildlife Ecology	3
FBM3102	Forest Protection	5
SOS 3101	Pedology & Land Use Potential	3
Electives		
FPE 3101	Primary Wood Industries	4
EEE 3105	Social Research Methods	3
EEE 3101	Program Development and Evaluation	3
FPE 3102	Non Timber Forest Products	3
	Year III: Semester II	
Core Courses		
CFE 3202	Agroforestry	3
SOS 3201	Soil Conservation & Land Reclamation	4
FOM 3201	Forest Management and Planning	3
FPE 3207	Wood Physical Properties	4
FBM 3201	Plant Ecology	3
Electives		
FPE 3206	Secondary Wood Industries	3
ANS 3201	Apiculture	3
FBM 3202	Aquatic & Wetland Resources	3
FOM 3205	Economics of Forest Products	3
	Recess Term	
FPE 3301	Basic Carpentry and Joinery	3
FBM 3301	Practical Skills in Wild Life Ecology	3



- Practicals in various places e.g. National parks and Forest Reserves



	Year IV: Semester I	
<i>Core Courses</i>		
Codes	Course Name	CUs
FBM 4101	Biodiversity Conservation and Management	3
FOM 4101	Hydrology and Watershed Management	3
FOM 4102	Environment Protection	5
FOM 4103	Forest Management Case Study	3
<i>Electives</i>		
FOM4104	Operations Research	3
FOM4105	Human Resource Management	3
	Year IV: Semester II	
<i>Core Courses</i>		
FPE 4201	Biomass Energy Production, use & Conservation	3
FOM 4201	Resource Assessment and Management	3
FOM 4204	Resource Assessment and Management	3
FNC 4201	Special Project	5
<i>Electives</i>		
CFE 4202	Rural Development	3
FOM 4203	Accounting & Budgeting	3
CFE 4201	Land Scarping and Urban Forestry	3

Review of MSc Forestry

Year 1	CUs
Semester I	
<u>Core Courses</u>	
FOM 7101 Applied Statistics and Biometrics	4
FOM 7102 Natural Resource Economics	4
FBM 7101 Advanced Silviculture	4
FNC 7101 Graduate Seminars	4
<u>Electives</u>	
FOM 7103 Land Use Planning & Watershed Management	4
FBM 7102 Advanced Forest Soils	4
FPE 7101 Forest Products	4
CFE 7102 Agroforestry Systems, Practices and Technologies	4
CFE 7103 Dryland Agroforestry	4
CFE 7104 Advanced Community Forestry	4
SOS 7101 Soil Fertility and Plant Nutrition	4

Graduate Seminars



Semester II	
<u>Core Courses</u>	CU's
FOM 7201 Forestry Resource Assessment	4
FBM 7201 Tropical Forest Ecology and Management	4
CFE 7201 Forestry Research Methods	4
FNC 7201 Graduate Seminars	4
<u>Electives</u>	
FOM 7202 Natural Resource Management	4
FOM 7203 Environment Management	4
FOM 7204 Forestry Business Management	4
FOM 7205 Natural Resources Project Planning and Management	4
FBM 7202 Tree/Crop Improvement	4
FBM 6203 Advanced Biodiversity Conservation	4
FPE 7201 Forest Harvesting Systems	4
CFE 7202 Gender Issues in Forestry	4
CFE 7203 Forestry Education and Extension	4
CFE 7204 Advanced Forestry for Rural Development	4
Year 2	
Research and thesis write up	5

Facilities

- Library
- Computer laboratory
- Field sites (Budongo Conservation Field Station)
- Students Hostel at Nyabyeya Forestry College



Potential Employment Opportunities

- District Forestry Services
- National Forestry Authority (NFA)
- Uganda Wildlife Authority (UWA)
- Forestry Resources Research Institute
- Non Governmental Organisations e.g. USAID, CARE
- National Environment Management Authority (NEMA)
- Tourism Industry
- Consultancy work
- Forestry Business e.g. Tree Nurseries, Plantation Forests, Carpentry, Wood treatment, Crafts
- Wetlands Management Department, Forestry Sector Support Department

Purpose of review

- Improve quality of forestry training
- Halt decline in numbers of forestry students
- Make the programmes more attractive and competitive
- Widen sponsorship beyond predominantly Government Sponsorship (which is also declining)
- Align competencies of forestry graduates to the needs of society

THANKYOU