



## MASTERS OF SCIENCE IN AGRICULTURAL AND RURAL DEVELOPMENT

The programme of Masters of Science in Agricultural and Rural Development at Kenya Methodist University is designed to train agricultural specialists equipped with the necessary tools for adequate decision making and management in Agriculture. The programme offers four options: (i) Animal Production option and (ii) Agricultural Extension option; (iii) Horticulture option; (iv) Dryland Agriculture option; (v) Agriculture & Rural Development option; (vi) Agronomy option; and (vii) Crop Protection option.

### Programme objectives

The programme aims at:

- Training graduates to gain an understanding of the physical, biological, socio-economic and business potentials, opportunities and constraints in the agriculture sector.
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### Admission requirements

The candidate must satisfy any of the following minimum requirements:

1. Be a holder of Bachelor of Science Degree in any relevant area of training with a minimum GPA of 3.0 from any recognized University.
2. Be a holder of a Bachelor of Science Degree in any relevant area of training with a minimum GPA of 2.5 from a University recognized by the Senate and a have minimum work experience of 2 years.

### Duration of Study

The programme is designed to cover a minimum of two trimesters of course work and two trimesters of Research and Thesis writing.

# Programme Structure

## A. ANIMAL PRODUCTION

1 <sup>ST</sup> TRIMESTER ( CORE COURSES)			
1.	AGRI 570	Statistics & Biometrics	3
2.	ANSC 554	Animal Ecology and Ethology	3
3.	ANSC 552	Non- Ruminant Nutrition	3
4.	ANSC 557	Animal Nutrition & feed Analysis	3
5.	ELECTIVE		3
2 <sup>ND</sup> TRIMESTER (CORE COURSES)			
1.	ANSC 553	Animal Breeding	3
2.	AGRI 571	Research Design & Data Analysis	3
3.	ANSC 551	Ruminant Nutrition	3
4.	ANSC 550	Animal Physiology	3
5.	CROP 544	Pasture & Fodder Management	3

ELECTIVES:           AGRI 531 Environmental Conservation & Management  
                               AGRI 550 Project Management & Development  
                               NARE 562 Agro forestry

## B. AGRICULTURAL EXTENSION

1 <sup>ST</sup> TRIMESTER ( CORE COURSES)			
1.	AGRI 570	Statistics & Biometrics	3
2.	AGRI 512	Rural Development	3
3.	SOWA 530	Soil Fertility & Plant Nutrition	3
4.	AGRI 590	Adult Education	3
5.	ELECTIVE		3
2 <sup>ND</sup> TRIMESTER (CORE COURSES)			
1.	ANSC 501	Livestock Production Systems	3
2.	AGRI 571	Research Design & Data Analysis	3
3.	AGRI 511	Agricultural Food Policy	3
4.	CROP 541	Crop Production Systems	3
5.	AGRI 550	Project Management & Development	3

ELECTIVES:           NARE 562 Agro forestry  
                               CROP 544 Pasture & Fodder Management

## C. HORTICULTURE

1 <sup>ST</sup> TRIMESTER ( CORE COURSES)			
1.	AGRI 570	Statistics & Biometrics	3
2.	CROP 552	Plant Biochemistry	3
3.	CROP 540	Plant Cell And Tissue Culture	3
4.	SOWA 530	Soil Fertility & Plant Nutrition	3
5.	CROP 551	Crop Physiology	3
2 <sup>ND</sup> TRIMESTER ( CORE COURSES)			
1.	AGRI 571	Research Design & Data Analysis	3
2.	CROP 543	Green House Management	3
3.	CROP 554	Post Harvest Technology	3
4.	AGRI 552	Agricultural Biotechnology	3
5.	CROP 531	Plant Breeding	3

ELECTIVES: AGRI 531 Environmental Conservation & mgt  
 NARE 561 Water Harvesting & Irrigation  
 SOWA 531 Soil & Water Conservation

## D. DRYLAND AGRICULTURE

1 <sup>ST</sup> TRIMESTER (CORE COURSES)			
1.	AGRI 570	Statistics & Biometrics	3
2.	SOWA 530	Soil Fertility & Plant Nutrition	3
3.	AGRI 540	Principles of Dryland Farming	3
4.	CROP 542	Crop Stress Physiology	3
5.			3
2 <sup>ND</sup> TRIMESTER (CORE COURSES)			
1.	AGRI 571	Research Design & Data Analysis	3
2.	NARE 561	Water Harvesting & Irrigation	3
3.	ANSC 501	Livestock Production Systems	3
4.	SOWA 531	Soil & Water Conservation	3
5.			3

ELECTIVES: AGRI 531 Environmental Conservation & Mgt  
 NARE 563 Disaster Management  
 ANSC 557 Animal Feeding & Nutrition  
 CROP 544 Pasture & Fodder Management

## E. AGRICULTURAL & RURAL DEVELOPMENT

1 <sup>ST</sup> TRIMESTER (CORE COURSES)			
1.	AGRI 570	Statistics & Biometrics	3
2.	AGRI 512	Rural Development	3
3.	CROP 541	Crop Production Systems	3
4.	SOWA 530	Soil Fertility & Nutrition	3
5.	ELECTIVE		3
2 <sup>ND</sup> TRIMESTER (CORE COURSES)			
1	AGRI 511	Agricultural Food Policy	3
2.	AGRI 571	Research Design & Data Analysis	3
3.	ANSC 501	Livestock Production Systems	3
4.	AGRI 550	Project Management & Development	3
5.	ELECTIVE		3

ELECTIVES: AGRI 531 Environmental Conservation & Mgt.  
 AGR 511 Agriculture & Food Policy  
 AGRI 544 Pasture & Fodder Management  
 ANSC 557 Animal Nutrition & Feed Analysis

## F. AGRONOMY

1 <sup>ST</sup> TRIMESTER (CORE COURSES)			
1.	AGRI 570	Statistics & Biometrics	3
2.	CROP 552	Plant Biochemistry	3
3.	SOWA 530	Soil fertility & Plant Nutrition	3
4.	AGRI 552	Agricultural Biotechnology	3
5.	ELECTIVE		3
2 <sup>ND</sup> TRIMESTER (CORE COURSES)			
1.	AGRI 571	Research Design & Data Analysis	3
2.	CROP 551	Crop Physiology	3
3.	AGRI 531	Environmental Conservation & mgt	3
4.	CROP 553	Plant Breeding	3
5.	ELECTIVE		3

ELECTIVES: NARE 562 Agro forestry  
 CROP 541 Crop Production Systems  
 SOWA 531 Soil & Water Conservation  
 AGRI 544 Pasture & Fodder Management

## G. CROP PROTECTION

1 <sup>ST</sup> TRIMESTER (CORE COURSES)			
1.	AGRI 570	Statistics & Biometrics	3
2.	BIO 546	Plant Pathology	3
3.	BIO 547	Entomology	3
4.	AGRI 560	Weed Science	3
5.	ELECTIVE		3
2 <sup>ND</sup> TRIMESTER (CORE COURSES)			
1	AGRI 571	Research Design & Data Analysis	3
2	BIO 548	Plant Virology	3
3	BIO 549	Nematology	3
4	CROP 552	Integrated Pest & Disease Management	3
5	AGRI 556	Pesticide Pharmacology	3

ELECTIVES: NARE 562 Agro forestry  
 CROP 541 Crop Production Systems  
 SOWA 531 Soil & Water Conservation  
 AGRI 544 Pasture & Fodder Management

NB: All 3<sup>rd</sup> and 4<sup>th</sup> trimester students are required to register for AGRI 599: Thesis Research.