MASTER OF SCIENCE IN AGRICULTURE

Prospectus-2016/2017 & 2019/2020



Faculty of Agriculture Eastern University, Sri Lanka Vantharumoolai

1.0 PREAMBLE

The Eastern Province, which forms a part of the dry zone of Sri Lanka, includes the districts of Batticaloa, Ampara, and Trincomalee. It has a total land area of 1.99 million acres, including a cultivated extent of 0.305 million acres. The Batticaloa District, in which Eastern University, Sri Lanka (EUSL) is located, is having population approximately 400,000 mainly dependent on Agriculture and Fisheries for livelihood. The Eastern University, Sri Lanka constitutes one of the 15 national universities in the country. It was established in1981. The Faculty of Agriculture is one of the five faculties of the university. Establishment of the Faculty of Agriculture in the EUSL was response to the long felt need for development of these three districts with respect to higher education. The Faculty was also expected to serve as a catalyst for the agricultural and economic development of the region. The agricultural education offered, and the agricultural research pursued by the University, cater to the special needs of the region as a dictated by a seasonally dry climate and low soil fertility. The Eastern University in general, the faculty of agriculture in particular, therefore have a vital role to play in the upliftment of the social and economic standards of a predominantly rural population who depend largely on agriculture.

The Faculty of Agriculture, EUSL has well established crop and livestock farms, about 15 acres in extent for teaching purposes and for the issue of seed and planting materials and breeding stock of farm animals to the public. Equipment and laboratory facilities for teaching and research are available in each Department of study. The faculty has established a Centre for Sustainable Agriculture and Resource Management (CENSARM) in 1996.

The Faculty of Agriculture, EUSL comprises the following departments of study:

- Department of Agricultural Biology
- Department of Agricultural Chemistry
- Department of Agricultural Economics
- Department of Agricultural Engineering
- Department of Animal Science
- Department of Crop Science

The Faculty conducts course leading to the B.Sc. (Agriculture) Degree over a period of four years. It participates in the agricultural development of the Eastern region of Sri Lanka in two major ways:

- Production of Agricultural graduates who become educationist, researchers, extension specialists and farm advisors/ managers.
- Conduct of basic applied and socio-economic research on problems associated with livelihood systems in the region.

Over 500 graduates have been released to the job market and have been absorbed by the various government and private sector institution from this Faculty. However, there is still a gap for postgraduate training in the faculty. The Faculty of Agriculture of the Eastern University, Sri Lanka thus has come forward to fill such gaps with the vision of ultimate development of the agricultural sector in this province.

2.0 BACKGROUND AND RATIONALE

Dry zone of Sri Lanka includes the districts of Batticaloa, Ampara and Trincomalee. Agriculture plays a major role in the economy of the country and provides employment opportunities to the people. In order to get higher output and sustainability in crop production, it is vital to have adequate knowledge and experience in agriculture. Hence, human resource development is a must to meet the present demand and guides future generation towards sustainable development.

Owing to the high competition in the job market, the graduates and employees of different sectors are in need of short or long term training for their career development. These types of training provide opportunities for them to acquire knowledge, skills and experience in their field of agriculture. In fact, there is a big gap between the demand for such training programmes and providing facilities to fulfill this requirement in the Eastern Province of this country.

The Faculty of Agriculture of the Eastern University, Sri Lanka thus has come forward to meet such demands with the vision of ultimate development of the agricultural sector in this province. This Faculty has well established laboratories for different disciplines and Crop and Livestock farms for both teaching and research purposes.

3.0 AIM AND OBJECTIVES

3.1 Aim:

The aim of the programme is to provide adequate knowledge and experience to human resources to contribute towards sustainable development in agriculture.

3.2 Objectives

The primary objective of this programme is to cater the demand for postgraduate education in the field of agriculture. Others include;

- Providing opportunities to graduates specialized in agriculture to widen their knowledge and training skills in the field of agriculture.
- Enhancing graduates to conduct problem based researches in agriculture.
- To fulfill the needs of the people engaged in agriculture.
- Exposing agricultural graduates to current technology in the field of agriculture.

4.0 TARGET GROUP

Graduates in the fields of agriculture, biological and applied sciences. Priority will be given for candidates with a wide range of working experience either from the Government or private sector.

5.0 ADMISSION REQUIREMENTS

In order to eligible for admission to a M.Sc. in Agriculture, a person must have satisfied all the admission requirements,

- i. A Bachelor's degree,
 - (a) Including 30 credits in the relevant subject area

or

- (b) Prior learning equivalent to 30 credits in the relevant subject. **Or**
- ii. A qualification in the relevant subject area equivalent to i (a) or i (b) or
- iii. Completion of NVQ level 7, as determined by the academic authority of the Higher Educational Institution.
- iv. Any equivalent qualification from recognized Institute of Higher education accepted by the Higher Degrees Committee and the Senate of the Eastern University, Sri Lanka.

Preference will however be given to graduates with classes. A person who has already registered as an internal/ external student of any University or Higher Educational Institution will not be considered for registration for this programme.

6.0 STRUCTURE OF THE PROGRAMME

6.1 Mode of conduct

The MSc in Agriculture will be conducted only by course work. This programme will function on a semester based system, each lasting for a period of 15 weeks. Course work of the M.Sc in Agriculture programme will be completed in 2 semesters (one academic year). This programme will be on a full time basis during weekends and convenient week days.

6.2 Course work

The course work will be conducted on a 'Credit unit basis'. The syllabus set out for this programme consists of course units. One credit unit (CU) is defined as 15 hours of theory or 30 hours of practical including self-learning or a combination of both subjected to the approval of the Faculty Board of Agriculture and the Senate of the Eastern University. Course work consists of satisfactory completion of 17 compulsory courses (including seminar and directed study) equivalent to 32 CU.

6.3. Method of Teaching

The general teaching techniques include lectures, discussions, tutorials, assignments, seminars, case studies, presentations, independent learning, laboratory and field work. The medium of instruction is English.

6.4 Methods of Assessment

Courses will be evaluated by continuous assessment viz. tutorials, laboratory practical reports, quiz, oral presentations, mid semester and end semester examinations.

6.5 Directed Study

The MSc programme includes a component of directed study which will be carried out at the end of the programme but, before the Comprehensive Examination. This study intends to give an opportunity for postgraduate students to practice what they have learnt during the course of study. Candidates will be required to carry out independent investigation on a topic related to the area of interest which needs to be recommended by the Advisor. The report of the directed study should be completed and the findings presented at a seminar before the comprehensive examination. The minimum and maximum period of this directed study would be three and six months respectively.

6.6 Seminar

Every student registering for this programme should present a seminar in a selected topic related to Agriculture. Attendance at every seminar is compulsory for all students.

7.0 PROGRAMME CONTENTS

7.1 Programme credit Units

The course work consists of 17 compulsory courses (total of 32 CU) including seminar and directed study. The directed study will be evaluated by an advisor appointed by the Higher Degree Committee on the recommendation of the Faculty Board. The seminar is common to all Master degree students in Agriculture.

7.2 List of Courses with codes

Course Code	Title	Credit	Туре	
First semester				
MAG 1101	Sustainable Crop Production	2	Compulsory	
MAG 1102	Controlled Environment Agriculture	1	Compulsory	
MAG 1103	Livestock Product Technology	2	Compulsory	
MAG 1104	Applied Human Nutrition	2	Compulsory	
MAG 1105	Nutrition Management in Agro Eco System	2	Compulsory	
MAG 1106	Irrigation Systems	2	Compulsory	
MAG 1107	Integrated Pest Management	2	Compulsory	
MAG 1108	Agricultural Development Policy	2	Compulsory	
MAG 1109	Seminar	1	Compulsory	
Second semester				
MAG 1201	Integrated Livestock-fish Production	2	Compulsory	
	System			
MAG 1202	Climate change and Food Security	2	Compulsory	
MAG 1203	Plant Breeding Techniques	2	Compulsory	
MAG 1204	Environmental Physiology	2	Compulsory	
MAG 1205	Food Processing and Product Development	2	Compulsory	
MAG 1206	Waste Utilization and Water Management	2	Compulsory	
	in Agriculture			
MAG 1207	Design and Analysis of Experiments	2	Compulsory	
MAG 1208	Directed Study	2	Compulsory	

7.3 Course detail

7.3.1 Courses offered in First Semester

MAG 1101 – Sustainable Crop Production

Basic concept and objectives economic and environmental problems in agriculture land and land degradation. Conventional agriculture vs alternative agriculture. Yield improvement techniques in field crops (rice, legumes, etc), Overview to plantation agriculture (cashew, coconut, tea and rubber). Yield maximizing and production constraints, Bio fertilizer and soil fertility improvement. Integrated Weed Management (IWM), Integrated farming systems (crop-animal integration).

MAG 1102 – Controlled Environment Agriculture

Introduction, Structural differences of protected houses, Protected house environment and their control, Growing systems in horticultural plants, Other protected house technologies, Pest and diseases control in green house, Designing and budgeting of protected houses.

MAG 1103 - Livestock Product Technology

Milk and milk products technology, Animal by-products technology, Fresh and processed meat technology, Dairy food products technology, Chemistry of meat and meat products, Slaughter practices, Processing of slaughter house by-products, Microbiology of livestock products, Packaging and marketing of livestock products, Livestock product policy and research.

MAG 1104 - Applied Human Nutrition

Science base of nutrition: Foods, Nutrition and health, Digestion, Absorption and Utilization of nutrients. Meal planning: Basic food groups, Food composition, Food pyramid and Food balance sheets, Energy balance and weight control. Indicators of nutritional status, Nutrient dietary requirements for pregnancy to lactation, Infancy to childhood and adulthood. Assessments of nutritional status: Diet survey, Anthropometric methodology, Body composition methodology, Clinical nutriture methodology, Physical working capacity and physical fitness methodology, RDAs. Nutrition of dietary fibre. Diet and Health: Nutritional disorders: Protein – Energy malnutrition, Iron, Iodine, Vitamin A, B complex and C Deficiencies. Non- communicable diseases: Cholesterol, Obesity, Diabetes, Blood pressure and heart diseases. Community nutrition: Public health nutrition, Food issues in developing

countries, Policies in foods and nutrition, World hunger, Food security, Malnutrition, Nutrition perspective biotechnology.

MAG 1105 – Nutrition Management in Agro Eco System

Chemistry and availability of major, secondary and selected minor elements in the soil; chemical properties of selected fertilizer materials; Fertilizer management for maximum utilization efficiency; Economical and environmental considerations in fertilizer use. Organic wastes for nutrient management. Integrated plant nutrient management (IPNM), Practices, Ways to improve nutrient management without creating environmental hazards.

MAG 1106 – Irrigation Systems

Introduction to irrigation systems, Water conveyance, Irrigation methods, Advantages and disadvantages of different irrigation methods, Evaluation of surface irrigation methods, Design and evaluation of micro irrigation systems, Water measuring structures.

MAG 1107 – Integrated Pest management

Introduction – Strategies in the development of Integrated Pest Management, Ecological concepts of IPM, Modeling in pest management. Implementing IPM through new technologies. Integrated pest management systems for rice, vegetable.

MAG 1108 – Agricultural Development Policy

Agriculture and economic development: Basic considerations, Strategies and the agricultural policy framework, Broad issues of agricultural policy, Policies that influence producer incentives, Land tenure policies, Water management policies, Policies for agricultural finance, Policies for agricultural technology, Agricultural development strategies

MAG 1109 – Seminar

Preparation, Presentation, Discussion and evaluation techniques and skills in seminars, Workshops and conference with particular emphasis on Agriculture. Preparation of contents, Settings, Literature search and preparation of transparencies, Slides, Power point and other presentation aids. Visual aids, Handling of discussion and evaluation of the presentation.

7.3.2 Courses offered in Second semester

MAG 1201 - Integrated Livestock-fish Production System

Principles of integration, Evolutionary development of Integrated Livestock-Fish Farming Systems in Asia, Major types of integrated systems in Asia, Environmental aspects, Design criteria for livestock manure ponds, Public health and livestock-fish integration, Social and economic considerations, Future directions in livestock-fish integration.

MAG 1202 - Climate Change and Food Security

Introduction, Changes in climate, Causes for rising concentrations of carbon dioxide and other greenhouse gases, Greenhouse effects and global warming, Increased UV radiation, Ozone concentrations and air pollutants, Rise in sea levels and ocean temperatures, Natural climatic variations, Impacts on climate change on productivity of agricultural crops, Forestry and other natural ecosystems, Prediction of climate change and its impacts, Adaptation to climate change in Sri Lanka.

MAG 1203 – Plant Breeding Techniques

Reproduction systems in cultivated crops, Emasculation and pollination techniques, Self and cross breeding techniques, Incompatibility and male sterility, Methods of producing hybrids and pure varieties, Genetic resources, Breeding strategies of national and international institutes, Maintenance of varietal purity and seed production.

Field visits and others: Visit of breeding institutes in Sri Lanka and PGRC, Interacting with Plant Breeders etc.

MAG 1204 – Environmental Physiology

Plants and Radiation, Heat, Mass and Momentum transfer within and above Canopies, Cell Water Relations, Leaf Temperature, Energy Balance and Evapotranspiration, Stomata, Light and Plant Development, Control of Tissue Temperature, Effects of Wind, Altitude, CO₂ and Atmospheric Pollutants on Plant Productivity, Physiology of Roots from Germination to Senescence, Source – Sink Conditions Affecting Root Growth and Development, Rooting and Root Physiology in well aerated Soils, Biochemistry of Roots under Waterlogged Condition, Effects of Temperature on Root Growth and Functioning, Hormones, Plant Growth Regulators and Roots, Saline Condition and Root Reactions.

MAG 1205 - Food Processing and Product Development

Scope and importance of food processing: National and international perspectives, Principles of food preservation, Removal of unwanted outer layers- potato peeling/skinning of peaches. Chopping/slicing, Mincing and macerating, Liquefaction, Production of fruit juice, Fermentation and breweries, Emulsification, Cooking-boiling, broiling, frying, steaming or grilling, Deep frying, Baking, Mixing, Addition of gas- air entrainment for bread or gasification of soft drinks, Proofing, Spray drying, Drum drying, Pasteurization and sterilization. Microwave processing, Membrane technology, Food packaging. Value added food products.

MAG 1206 - Waste Utilization and Water Management in Agriculture

Introduction to waste, Sources of solid and liquid waste, Organic wastes, Compost making, Use of waste water in agriculture. Need for water conservation, Moisture conservation in dry lands, Improvement of land near coastal area, Wind breaks and shelter belts, Water harvesting, Water shed management, Wet land conservation.

MAG 1207 – Design and Analysis of Experiments

Basic statistics, Principle of experimental design, Completely Randomized, Randomized Complete Block and Latin square design, Covariance analysis, Transformation data, factorial experiments, Sampling techniques, Confounding in two factorial experiments, Factorial design, Incomplete Block Designs, regression analysis, statistical packages.

MAG 1208 – Directed study

Self-learning exercise guided by a supervisor to do a small study or produce a review manuscript publishable in a refereed journal. Candidates will be required to carryout an independent investigation on a topic related to the area of interest and recommended by the supervisor.

8.0 GENERAL UNIVERSITY REGULATIONS

8.1 Higher degree committee

The "Higher Degree Committee" shall comprise of the Dean, Heads of Departments, Professors and Senior Lecturers of the Faculty of Agriculture. The Chairperson of this committee will be the Dean. This committee will be responsible for the overall management of this postgraduate programme.

8.2 Academic Year

The academic year consists of two semesters. The Higher Degree Committee of the Faculty of Agriculture, EUSL will formulate the Calendar of Dates in respect of each academic year.

8.3 Panel of Teachers

There will be a panel of teachers comprising the members of the Faculty of Agriculture, EUSL and outside members who have the ability to teach at Postgraduate level in the field of Agriculture. The appointment of members of the panel of teachers will be made by the Dean, Faculty of Agriculture, EUSL upon the recommendation of the higher degree committee. Each appointment will be made valid for a period of one year, which could be renewed.

Name	Qualifications	Designation	Discipline
Prof. (Mrs). Thevaki	B.Sc. Agric. (UPDN, Sri Lanka), Ph.D.	Senior Professor	Agric. Chemistry
Mahendran	(Reading, UK)		
Prof. (Mrs). Thayamini H.	B.Sc. Agric. (EUSL, Sri Lanka), M.Sc.,	Professor	Crop Science
Seran	Ph.D.(UC, Sri Lanka)		
Prof.S.Sutharsan	B.Sc. Agric. (EUSL, Sri Lanka), M.	Professor	Crop Science
	Agric., D. Agric. (NU, Japan)		
Dr.P.Sivarajah	B.Sc. Agric. (UPDN, Sri Lanka),	Senior Lecturer Gr.I	Agric. Economics
	M.Sc.(AIT, Thailand), Ph.D. (TNAU,		
	India)		
Dr.K.Premakumar	B.Sc. Agric. (UPDN, Sri Lanka), M.Sc.	Senior Lecturer Gr.I	Agric. Chemistry
	(AIT, Thailand) Ph.D. (IARI, India)		
Dr. (Mrs). Punitha	B.Sc. Agric. (EUSL, Sri Lanka), M.Phil.	Senior Lecturer Gr.I	Agric. Chemistry
Premanandarajah	(UPDN, SriLanka), Ph.D. (TNAU, India)		
Dr. (Mrs). Kumuthini D.	B.Sc. Agric.(TNAU,India),	Senior Lecturer Gr.I	Crop Science
Harris	M.Phil(UPDN, Sri Lanka), Ph.D.		
	(Reading, UK)		
Dr.M.Pagthinathan	B.V.Sc., M.Phil.(UPDN, Sri Lanka),	Senior Lecturer Gr.I	Animal Science
	Ph.D.(UPM, Malaysia)		
Dr.M.M.Mahusoon	B.Sc. Agric., M.Phil., Ph.D. (UPDN, Sri	Senior Lecturer Gr.I	Animal Science
	Lanka)		
Dr.S.Mahendran	B.Sc. Agric. (UAS, Bangalore, India),	Senior Lecturer Gr.I	Agric. Biology
	M.Sc.(UJ, Sri Lanka), M.Sc.(Reading,		
	UK), Ph.D. (UPDN, Sri Lanka)		
Dr. (Mrs). Niranjana	B.Sc. Agric. (EUSL, Sri Lanka)	Senior Lecturer Gr.I	Agric. Biology
Rodney Fernando	M.Phil.(UPDN, Sri Lanka) Ph.D (TNAU,		
	India)		
Mr.M.Sugirtharan	B.Sc. Agric. (EUSL, Sri Lanka), M.Sc.	Senior Lecturer Gr.I	Agric. Engineering
	(MPAU, India)		
Mr.R.Thivyatharsan	B.Sc. Agric. (EUSL, Sri Lanka), M.Phil.	Senior Lecturer Gr.I	Agric. Engineering
	(UPDN, Sri Lanka)		
Mrs. Thivahary	B.Sc. Agric. (EUSL, Sri Lanka),	Senior Lecturer	Agric. Economics
Geretharan	M.Phil.(UPDN, Sri Lanka)	Gr.II	
Mr.S.Srikrishnah	B.Sc. Agric. (EUSL, Sri Lanka), M.Phil	Senior Lecturer	Crop Science
	(UPDN, Sri Lanka)	Gr.II	
Mr. T.Geretharan	B.Sc. Agric. (EUSL, Sri Lanka), M.Sc.	Senior Lecturer	Crop Science
	(UPDN, Sri Lanka), M.Phil (UPDN, Sri	Gr.II	
	Lanka)		
Mrs.Brintha Karunarathna	B.Sc. Agric. (EUSL, Sri Lanka),	Senior Lecturer	Crop Science
	M.Phil(UPDN, Sri Lanka)	Gr.II	
Mr.M.Rajendran	B.Sc. Agric. (EUSL, Sri Lanka)	Senior Lecturer	Agric. Engineering
	M.Phil.(UPDN, Sri Lanka)	Gr.II	

Panel of Teachers

8.4 Category of students

There will only be full time students are allowed to follow this Masters programme.

8.5 Eligibility for Admission

In order to eligible for admission to an M.Sc in Agriculture, a person must have satisfied all the admission requirements specified in Section- 5. Under no circumstances the university will grant an exemption from these requirements.

8.6 Application for Admission

Application for admission will normally entertained during the first quarter of each calendar year but university may stipulate any other period for this purpose. Publicity will be given by notices in the national newspapers for the period within which applications will be entertained in respect of each year. Every application for admission must be made on the prescribed form obtained from the university.

The selection of an applicant for admission is normally dependent upon the academic background and capability for higher studies as disclosed by transcripts of records pertaining to degree, diplomas and other distinctions previously obtained and the referee's report submitted in support of application. Higher Degree Committee may conduct aptitude test or may require applicants to appear for an interview to consider eligibility for admission. But, not withstanding the fact that an applicant may otherwise eligible, it is lawful for the Higher Degree Committee to reject the application.

8.7 Leave/ Letter of Release

Students who are employed should produce evidence of leave granted to follow courses and a letter of release from the Heads of their institutions/organizations.

8.8 Registration

Every student is required to register for this postgraduate programme. It shall be the responsibility of every student to ensure that he/she will remain continuously registered from the beginning of the semester in which he/she commenced the programme of study up to the end of the semester in which he/she would complete the requirements for the degree. Every student must complete the registration procedure within the period specified for that purpose in the approved calendar of dates. A student registered after the date fixed for the purpose

shall be considered as a late registrant and liable for the payment of Rs 100/=. Late registration can be done only until a period of one week after the normal registration period. Registration will not be given to students after this period. The University, at the commencement of academic year, will issue a Registration/ Identity Card to each student, which will be used for the purpose of identification and the provision library facilities. The Registration/Identity Card will be valid only after the endorsement of Registrar, EUSL.

8.9 Withdrawal from the Programme

A student, who had failed to register in respect of a given semester during which he/she should have been actively engaged in course work or failure to register had not been covered by Chairperson of the Higher Degree Committee, shall be deemed to have voluntarily withdrawn from the programme of study. A student, who is in the opinion of the Higher Degree Committee, has failed to maintain a satisfactory standard or who has failed to make satisfactory progress in his/her course work may be required by the Higher Degree Committee to withdraw from the Master's degree programme. A student, who wishes to withdraw on his/her own accord from this programme, may do in consultation with the Chairperson of the Higher Degree Committee and shall make a written request to the Vice- Chancellor, EUSL.

8.10 Advisor

The Higher Degree Committee will appoint in respect of each student an Advisor from the panel of teachers to supervise the directed or project study of him/her. There may be one Advisor for many students.

8.11 Minimum number of students for a programme and attendance

The minimum number of students required to commence the M.Sc degree programme in Agriculture shall be fifteen (15). All students should satisfy 80% of attendance at lectures to be eligible to sit the examination.

8.12 Programme of Study

The programme of study for the M.Sc degree in Agriculture will comprise course works including directed study or project undertaken by the student to carry out an independent investigation in a selected field under the supervision of advisor. Every student must submit three bound copies of a report based upon independent investigation carried out by him/her in the directed study or project.

8.13 Course requirement

All candidates are required to complete a minimum of 32 credits for the successful completion of the course. All compulsory courses (17 Numbers) must be completed.

8.14 Duration of Programme

The minimum period for the M.Sc programme shall be 12 months, but the actual time taken by a particular student to complete the prescribed requirements will depend upon his/her application to the programme of study. Every candidate will be required to undertake a Directed study or Project Study for a minimum of 3 months under advisor.

8.15 Eligibility for Degree

In order to be eligible for the award of the M.Sc degree, a student shall have attained the satisfactory "S" grade at a Comprehensive Examination after having successfully completed the examinations in the courses of study offered to him/her.

8.16 Effective date of Degree

The effective date of the degree of a student who has successfully completed a programme of study leading to an M.Sc degree shall be the date on which he/she successfully completes the Comprehensive Examination. If the Examination Committee recommends the award of a Postgraduate Diploma in Agriculture to a candidate in the event that he/she has failed the Comprehensive Examination on two occasions, the effective date of such Diploma shall be the date of the Second Comprehensive Examination. A student may opt for a Diploma after having successfully completed the course work component required for M.Sc degree programme even without sitting for comprehensive examination.

8.17 Completion of Programme

A student whose programme of study has been completed must return the Identity/Registration Card, properly invalidated by the Library along with a certificate of clearance issued by the Librarian to the office of the Registrar, EUSL. Notwithstanding the fact that he/she may be otherwise eligible, no student will be admitted to a degree or given examination certificate or a transcript of record unless he/she has satisfied this requirement.

9.0 EXAMINATION PROCEDURES

9.1 Evaluation Scheme

There shall be two types of Evaluation/ Assessment, viz. Courses and Comprehensive Examination.

(a) Courses

A course evaluation is made on the basis of a continuous assessment of student's performance during an academic semester at tutorials, practical, quizzes, oral presentations and mid-term (at least 1 hour duration) and the end term paper(at least of two hours duration) examinations. A Directed study and Seminar will be evaluated only at the end of the activity. Weight-age shall be given to the different assessments in a course other than a Directed Study or Seminar as enumerated below:

Method of assessment	percent (%) contribution
Quiz and Oral Presentation	10
Mid Examination	20
Tutorial/ assignments, Practical	20
End Semester Examination	50
Total	100

The final mark and grade given shall not valid until all the above assessments are followed. Directed Study and Seminar shall have only one final mark and grade.

(b) Comprehensive Examination

The Comprehensive Examination shall be graded as "S" (Satisfactory) or "U" (Unsatisfactory). The Comprehensive Examination shall be an oral examination. It shall be held at the successful completion of the required course components approved for this programme in order to assess a candidate's broad understanding of the field of study and such other related fields of study.

9.2 Eligibility for Examination

To be eligible for an assessment on a course and the award of grade, a student shall be required to keep the registration in force during the period in which the course has been conducted and enroll for the respective courses giving correctly the course numbers, course titles and the unit values in the course enrolment form required to be completed by the student within the prescribed period indicated in the calendar of dates approved by the university for the year. Such course enrolment forms will be filled in the office of the Dean, Faculty of Agriculture on the date fixed for registration or such other date as may be indicated by the university. Course enrolled shall not be changed or deleted after the expiry of the date specified for the purpose in the approved calendar of dates.

9.3 Comprehensive Examination

For a student to be eligible to sit a Comprehensive Examination he/she shall be required satisfactorily complete the course component of this master's programme for which he/she is registered by

- a. Keeping the registration in force during the term in which the Comprehensive Examination is held
- b. Obtaining the minimum required grade point average of 2.0 and
- c. Obtaining the required grades for all compulsory courses approved by the Higher Degree Committee, and
- d. Satisfying the 32 credit units of course work

9.4 Repeat Examination

- A student who does not have a minimum "C" grade in compulsory course or minimum "C" grade in optional course shall repeat the course.
- b) A Comprehensive Examination shall be repeated only once after the lapse of 3 months from the first attempt. However, this stipulated period of 3 months may be waived by the Higher Degree Committee in the case of foreign students who have to report back in their countries after the expiry of their approved leave. The Examination Committee for a repeat Comprehensive Examination shall preferably be the same as for the original examination.
- c) Those students who fail at both attempts at the Comprehensive Examination could opt for a Postgraduate Diploma in Agriculture on the recommendation of the Higher Degree Committee.

9.5 Make-up Examination

If a student fails to sit a mid-term or end-term examination, a "Make-up" examination may be arranged for that student by the teacher concerned. Such a "Make-up" examination may be allowed to a student only on medical grounds supported by a valid medical certificate or for any other justifiable reason.

9.6 Absence from Examination

Except for any justifiable reason or on medical grounds supported by a valid medical certificate, if a student gets absent from a scheduled examination, an unsatisfactory (U) grade will be given in the case of a Comprehensive Examination and zero mark will be given in the case of a midterm or end-term examination.

9.7 Valid Medical Certificate

A valid medical certificate means a medical certificate from a Medical Officer of the University or District Medical Officer or Consultant Medical Specialist or Head of a Government Base Hospital. Under exceptional circumstances medical certificate issued by registered private medical practitioners may be considered by the university.

9.8 Progression

Progression through the course shall be assessed in one of the three categories:

(a) Normal Progression – This occurs when a student passes all courses taken.

(b) Probationary – This is a warning stage and occurs if,

- i) A student fails a core/compulsory course, or
- ii) A student obtains a Grade Point Average (GPA) or a Cumulative Grade Point Average (CGPA) of less than 2.00. Probation is removed when either of the conditions (i) or (ii) no longer exists.
- (c) Discontinuation A student shall be discontinued from the programme for one of the following reasons:
 - i) Receiving two probations on the same core/compulsory course.
 - ii) Receiving two consecutive probations based on GPA or CGPA.

9.9 Examination Committee for Comprehensive Examination

A comprehensive Examination will be conducted by an examination committee comprised of five members of whom three shall be internal examiners from the Panel of Teachers nominated by the Higher Degree Committee and two external examiners from outside the Panel of Teachers appointed by the Dean, Faculty of Agriculture, EUSL in consultation with

the Higher Degree Committee. The minimum number of examiners for a Comprehensive Examination shall be three. The Higher Degree Committee shall nominate one from among the members of the Examination Committee as Chairman.

9.10 Application for Examination

Application for the Comprehensive Examination must be submitted to the office of the Dean, Faculty of Agriculture within 3 months from the time a student completes the courses required for this programme including directed study and seminar. An examination shall be held within 3 months from the date of application, unless otherwise recommended by the Higher Degree Committee.

9.11 Scheme for grading courses and computation of Grade Point Average (GPA)

 a) Each course shall be graded out of a maximum of 100 marks and assigned appropriate Letter Grades and Grade Points as follows:

Percentage	Letter Grade	Grade Point
80-100	А	4.00
75-79	A-	3.70
70-74	B+	3.30
65-69	В	3.00
60-64	B-	2.70
55-59	C+	2.30
50-54	С	2.00
00-49	F	0.00

- b) Calculation of Grade Point Average (GPA)- Marks obtained for each numbered courses will be converted into Letter Grades and Letter Grades obtained for courses will then be converted into Grade Points on the above basis. The number of grade points allotted to a grade should be multiplied by the credit rating of the course for which it is given. Finally, the total number of points obtained for all the courses taken by a student will be divided by the number of credits due for the programme as a whole to get the Grade Point Average (GPA). The pass Grade Point per course is 2.0. No credit unit shall be awarded for any course in which a student fails.
- c) In giving a grade at successful repeat examination all previous unsatisfactory grades shall be eliminated and pass mark "C" shall be awarded whatever the subsequent satisfactory

grade may be. If a student does not reach a Cumulative Grade Point Average (CGPA) of 2.0 (after computation of all the marks received for first and second semesters) his/her programme will be terminated.

d) Incomplete Grade: If a student fails to complete the requirements of a course due to illness or some other valid reasons supported by evidence acceptable to the Vice- Chancellor. He/she shall obtain an "I" (Incomplete) grade for that course. Such a student shall complete the requirements for that particular course on the first occasion the course is next offered. In this instance, unlike in I above, on successful completion of the course, he/she will be given the actual grade obtained by him/her for that course. However under exceptional circumstances, on the approval of the Vice-Chancellor, a student may omit a course in which he/she has obtained an "Incomplete" grade provided he/she has fulfilled the minimum credit requirements to sit the Comprehensive Examination, subject to the condition that the credit value of the course so omitted shall be added to the total number of course credits earned with zero grade point when computing the GPA.

9.12 Colour of the Cover for Directed Study

The colour of the cover used for the directed study shall be Brown.

9.13 Transcript of Academic Records

Every student may, at the end of each semester, on a written request made to the Senior Assistant Registrar, Examination, EUSL receive a transcript of his/her academic performances in respect of that semester. Such a transcript is issued to the student only for his/her information and it shall not be used for any official purpose. A certified transcript of a student's academic records authenticated by the signatures of the Vice-Chancellor and the Senior Assistant Registrar of the Eastern University, Sri Lanka may be sent under confidential cover direct to another University or Institute or Ministry or Embassy or Student's Employer, on receipt of an application with the prescribed fee for such a transcript made by the student concerned.

10. COURSE FEE

10.1 Method of Payment

Fees should be paid by a cheque or Cash, at People's Bank Branch, EUSL using the paying - in - slip prepared by the university for this purpose. No payment in other methods shall be accepted except if done after prior arrangement with the university. A receipt for payment of the prescribed fee should be annexed to the application for registration or the application for entry to the examination, as the case may be.

10.2 Refund of Fees

Except as provided below, no fee shall be refunded

(a) If a fee is paid under a mistake of fact, or if it is paid in excess under such a mistake, the excess fee less fifteen percent may be refunded.

11. GRADUATION

Every student who has satisfied the prescribed requirements for award of a Master's of Science Degree in Agriculture will be held responsible for submitting his/her application for graduation at the convocation held annually by the University for its graduants.