

## MASTER OF SCIENCE PROGRAM IN SUSTAINABLE AGRICULTURE

### Academic Institution:

Faculty of Agriculture, Kasetsart University, Bangkok, Thailand

### Duration: *(Since the students have been accepted, pre-course (if any), and all opened semester)*

Two year program include 1 summer session.

Two semester/ year:

1<sup>st</sup> semester: 1 st June-30 October

2<sup>nd</sup> semester: 1<sup>st</sup> November – 28<sup>th</sup> February

Summer session: 15<sup>th</sup> March - 15<sup>th</sup> May

### Eligible Countries:

Afghanistan, Bangladesh, Djibouti, El Salvador, Eritrea, Fiji, Gambia, Guinea, Indonesia, Iran, Jordan, Kenya, Lesotho, Malawi, Maldives, Marshalls Islands, Micronesia, Nepal, Pakistan, Papua New Guinea, Philippines, Samoa, Solomon Island, Sri Lanka, Sudan, Tanzania, Timor-Leste, Uganda and Vanuatu.

**Objectives:** to build up the research capacity and research skill by integrative approach that can be applied to enhance the sustainability of agriculture and environment at the international level.

### Course Synopsys & Methodology:

The program provide 2 plans of study

Plan A1(research oriented plan) *this plan is designed for those who have research experience in agriculture or related sciences for at least 1 year after their bachelor degree graduation).*

Plan A2(research oriented plan) *this plan is designed for the newly B.S. graduate without research experience*

### Course Content / Study Topic:

#### Course description:

01019511	Integrated Pest Management Conceptual framework, process and philosophy of pest management. Principles of ecology and socio-economic backgrounds. Guidelines and implementation of pest management.	3(3-0-6)
01019512	Agricultural Pest Ecology Role of agricultural pest ecology in pest management strategies and crop ecosystem models.	3(3-0-6)
01019521	Pesticides and the Environment Properties of pesticides. Movement and fate of pesticides in the environment and their effects on non-target live organisms. The safe and effective use of pesticides.	3(3-0-6)
01019531	Sustainable Crop Production Crop production development in the context of sustainable agriculture. Technology of sustainable crop production. Basic and socio-economic of resources in agriculture. Farming system resources and development concept. On-farm testing and technology transfer. Holistic development of integrated crop production system. Sustainable crop production in organic farming systems. Field trip required.	3(3-0-6)
01019541	Sustainable Animal Production Theory and concept of animal farming system for sustainable production. Sustainable livestock farm management. Forage livestock system for sustainable animal production. Maximized use of resources from livestock production. Animal diversity for sustainable production. Environmental impacts from livestock farming. Management and utilization of waste from livestock farms. Consumer safety and animal welfare. Sustainable animal production. Animal production in organic farming systems. Field trip required.	3(3-0-6)
01019551	Soil Fertility and Organic Matter Soil factors affecting plant growth and quality with emphasis on the bio-availability of minerals. Management of soil organic matters. Principles of plant residue and animal decomposition. Relationship of human activities to the sustainability of soil ecosystem.	3(3-0-6)

01019553	Natural Resources for Sustainable Agriculture Natural resources: plant, animal, soil, and water in various types of ecosystems in both tropical and temperate regions of the world. Importance of natural resource diversity, utilization approach and appropriate management of natural resources in agricultural production system lead to sustainability. Field trip required.	3(3-0-6)
01019561	Sustainable Agriculture Conceptual framework of sustainable agriculture and its implications. The management and conservation of natural resource. The development of appropriate technology. Agricultural policy and resource management for the benefit of present and future agricultural productions and sustainable resources.	3(3-0-6)
01019562	Technology Transfer for Sustainable Agriculture Attitude towards chemical-based agricultural production, sustainable agriculture concept, advantages and disadvantages of both systems. Psychology in attitude change and technology transfer approach lead to sustainability of agricultural production system.	3(3-0-6)
01019563	Sustainable Agriculture in Socio-economic Dimensions Economic impact of commercial agricultural system on individual, family, national and international levels. Developmental approach lead to self-sustainability at all levels in a society. Advantages and disadvantages of sustainable agricultural system from economic and social aspects.	3(3-0-6)
01019591	Research Methods in Sustainable Agriculture Research principles and methods in sustainable agriculture problem analysis for research topic identification, data collecting for research planning, identification of samples and techniques. Research analysis, result explanation and discussion, report writing, presentation and preparation for journal publication.	3(3-0-6)
01019596	Selected Topics in Sustainable Agriculture Selected topics in sustainable agriculture at the master's degree level. Topics are subject to change each semester.	1-3
01019597	Seminar Presentation and discussion on current interesting topics in sustainable agriculture at the master's degree level.	1
01019598	Special Problems Study and research in sustainable agriculture at the master's degree level and compile into a written report.	1-3
01019599	Thesis Research at the master's degree level and compile into a thesis.	1-36

**Qualifications:**

1. Bachelor of Science in agriculture or related fields
2. Reference of English language proficiency

**Documents Required:**

1. Three (3) copies of the TICA application form, affixed with photographs
2. Transcript: 1 original copy
3. B.S. certificate: 1 copy
4. Letters of recommendation: from 3 referee
5. Letter of certification of research experience in agriculture or related fields(optional)
6. Curriculum Vitae
7. Research Proposal includes research title/ background and justification/ research question or hypothesis/ research objectives/ literature review/ research methodology/ expected outcome/ expected benefit for future career

**Closing Date for Nominations:**

November 30, 2013

Late or incomplete applications/documents will not be considered.

**Contact:**

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