

**Course Title**

**Master of Science in Sustainable Land Use and Natural Resource Management**

**Master Degree:** Master of Science

**Academic Institution:** The Graduate School, Kasetsart University

**Duration:** 2 years

**Objective: .**

The overall aim of the Master of Science Programme in Sustainable Land Use and Natural Resource Management are to produce graduates at master's level with the knowledge of integrated land use and natural resource management with respect to theory, analysis and applications. The Master of Science programme also aims to produce graduates capable of developing appropriate plans for sustainable land use and natural resource management with public and stakeholder participation and interdisciplinary perspectives.

**Couse Synopsis and Methodology**

Required courses:

01556511 Concept and Policy of Sustainable Land Use and Natural Resource Management

Concept and principles concerning sustainable land use and natural resource management; national and international policies, conventions and agreements. Guidelines for policies and concept analysis and recommendation report.

01556512 Land Use and Natural Resource Management at Community Level

Application of concepts, principles and knowledge concerning land use and natural resource management at household and community levels. System analysis of local problems using interdisciplinary approach. Causal relationship among local livelihoods, economics, society, natural resources and environment for guidelines development in sustainable natural resource use. Field trip required.

01556513 Land and Natural Resource Management at National and Regional Levels

Problem analysis of land use and natural resource management at national and regional levels. Management tools and impact assessment for land use development project.

01556571 Investigation and Evaluation Techniques for land Use and Natural Resource Management

Logical framework analysis for sustainable land use and natural resource management. Surveying techniques in studying land use and socio-economic conditions at community level.

Stakeholder analysis. Resource investigation and assessment of soil, water, forest and biodiversity. Agriculture systems, Sustainability indices. Economic assessment. Application of Geo-information.

01556591 Research Methods in Sustainable Land Use and Natural Resource Management

Principles and research methods in sustainable land use and natural resource management. Problem analysis for research topic identification; data collection for research planning, identification of samples and techniques. Analysis, interpretation and discussion of research results; report writing for presentation and publication.

01556592 Interdisciplinary Field Study

Interdisciplinary field practicum, Study area and problem formulation. Research design, field observation and application of field techniques. Data collection and participatory approach to data analysis. Group discussion. Preparation and presentation of the final report.

Elective courses:

01556514 Conflicts and Problems in Land Use

Conflicts and problems in land use and natural resource management at the subwatershed level. Analytical concept and methods to alleviate problems and conflicts in socio – economic, politics, land use and natural resource utilization, agricultural production and marketing systems. Economic application, participatory management and development of sustainable land use and natural resources. Field trip required.

01556551 Techniques in Land Use Planning for Sustainable Development

Land use planning process, applying the Potential Surface Analysis, techniques in assessing land use change, and land use planning for sustainable development.

01556552 Agroforestry Technology

Theories and principles of agro – ecosystems, trends and status of land use problems, agriculture comprise of woody perennial combination with crops, livestock and fisheries, agroforestry components and arrangements, process of program development and evaluation and agroforestry for land use and natural resource management. Case Study

01556553 Agroecosystem and Management

Concept and analysis of agricultural system and agroecosystem. Resources and constraints in physical, biological, economic and social aspects. Interaction among systematic factors. Nutrients cycle and energy flow. Agrobiodiversity. Effect of agricultural production management on local, regional, and global ecological systems. Principle of sufficient economy philosophy and sustainability of agriculture.

**01556561 Social Dimension in Land Use and Natural Resource Management**

Social principles and concepts in land use and natural resource management. Political and governmental dimensions. Government laws and policies. Local government authorities, Local leaders and local wisdom. Role of international organizations in natural resource management. Field trip required.

**01556562 Economic Dimension in Land Use and Natural Resource Management**

Roles and importance of land and natural resources on economic development, applied ecological economics concept and theory in sustainable land use and natural resource management. Economic dimension of sustainable development. Applied cost – benefit analysis in land and natural resource uses and conservation projects.

**01556572 Geo – Information Science for Sustainable Land Use and Natural Resource Management**

Geo – information science concepts related to land use and natural resource management, spatial and non – spatial database system, global positioning system, remote sensing, spatial analysis, application of geo – information science for sustainable land use and natural resource management.

**Course Content/Study Topic:**

Study/Research topics are in the fields of forestry, sciences, agriculture, economics, social sciences and environmental sciences with interdisciplinary approaches.

**Qualification:**

Bachelor of Science in any fields (e.g. sciences, forestry, economics, social sciences, agriculture, engineering, information technology, environmental sciences)

**Document required:-**

1. Application form (can downloaded at [www.interprogram.ku.ac.th](http://www.interprogram.ku.ac.th))
2. An official transcript
3. Proof of English proficiency (IELTS overall score 5.0 or equivalents TOEFL)
4. Recommendation letter
5. Curriculum Vitae
6. A scan of passport

**Closing date for Nominations:** February, 2018

**Late or incomplete applications/document will not be considered.**