



CURRICULAR OVERVIEW

STUDY PROGRAMME: MASTER OF SOIL SCIENCE

1. Program Educational Objective (PEOs) of Master of Soil Science:

- PEO-1. Having the ability to manage and to plan the usage of soil and land resources for sustainable agricultural and environmental purposes.
- PEO-2. Having the ability to develop professional carrier and/or research in soils and land resource.
- PEO-3. Having the ability to participate and communicate with scientific and social communities to apply science and technology in soil and land resources .

2. Intended Learning Outcomes (ILOs) of Master of Soil Science

- ILO-1 Able to analyze and interpret any soil properties and characteristics to determine the potential and the constraints in utilizing the soils, natural resource, and environment
- ILO-2 Able to classify, evaluate the capability and the suitability of the land, as well as to determine the alternative uses for achieving sustainable agriculture and environment
- ILO-3 Able to utilize technology in determining and solving problems in soil, land resource, and the environment independently, capably, and detectably.
- ILO-4 Able to develop knowledge and professionalism, as well as to be a driving force for sustainable agricultural development.
- ILO-5 Able to innovate in the development of science and business/industry in soil and land resource

3. Curriculum Structure

1st Semester

Code	Course Name	Credit (CP)	ECTS*	Workload**	
				Hours in class	Hours Self-Study
MIT 81101	Soil Genesis and Classification	3(2-1)	8.18	53.33	192
MIT 81102	Advanced Soil Physics	3(2-1)	8.18	53.33	192
MIT 81103	Advanced Soil Fertility	3(2-1)	8.18	53.33	192
MIT 81204	Clay mineralogy	3(3-0)	7.73	40	192
MIT 81205	Advanced Soil and Water Conservation	3(2-1)	8.18	53.33	192
STK 511	Applied Statistics	3(3-0)	7.73	40	192
AGR 534	Plant Ecophysiology	3(3-0)	7.73	40	192
MIT 00000	Matriculation	3(2-1)	8.18	53.33	192
Sub-Total		24(19-5)	64.09	386.65	1536

2nd Semester

Code	Course Name	Credit	ECTS*	Workload**	
				Hours in class	Hours Self-Study
MIT 82118	Advanced Soil Biology	3 (2-1)	8.18	53.33	192
MIT 82119	Advanced Soil Chemistry	3 (2-1)	8.18	53.33	192
MIT 82120	Integrated Watershed Management	3 (3-0)	7.73	40	192
MIT 82221	Land Suitability Evaluation	3 (2-1)	8.18	53.33	192
MIT 82222	Peatland Management	3 (3-0)	7.73	40	192
MIT 82223	Remote Sensing (RS)	3 (2-1)	8.17	53	192
PAF 524	Research methodology	3 (3-0)	7.73	40	192
Sub-Total		21(17-4)	55.90	332.99	1344

3rd Semester

Code	Course Name	Credit	ECTS*	Workload**	
				Hours in class	Hours Self-Study
MIT 81206	Research Plan Seminar	1 (0-1)	4.00	0	120
MIT 81207	Advanced Soil and Plant Analysis	3 (2-1)	8.18	53.33	192
MIT 81208	Geographical Information System	3 (2-1)	8.18	53.33	192
MIT 81209	Spatial Planning	3 (2-1)	8.18	53.33	192
MIT 81210	Soil and Environment	3 (3-0)	7.73	40	192
MIT 81211	Rice Field Management	3 (3-0)	7.73	40	192
MIT 81226	Wet Tropical Dryland Management	3(3-0)	7.73	40	192
Sub-Total		19 (15-4)	31.70	279.99	1272

4th Semester

Code	Course Name	Credit	ECTS*	Workload**	
				Hours in class	Hours Self-Study
MIT 80124	Research Results Seminar	2 (0-2)	4.00	0	120
MIT 80125	Thesis	8 (0-6)	24.00	0	720
MIT 80126	Publication of scientific articles in accredited national/international reputable journals	3 (0-3)	9.07	0	272
MIT 80227	Publication of scientific articles in unaccredited national/international journals is not reputable	3 (0-3)	9.07	0	272
MIT 80228	Poster Presentation at the National Seminar	1 (0-1)	3.02	0	90.6
MIT 80229	Poster Presentation at International Seminar	1 (0-1)	3.02	0	90.6
MIT 80230	Oral Presentation at International Seminars	2 (0-2)	6.40	0	192
MIT 80231	Oral presentation at a national seminar	1 (0-1)	3.02	0	90.6
Sub-Total		19 (0-19)	61.59	0	1847.8

Note: Students should take course at minimum 36 SCS from 84 SCS available

Total : 36 Credits = 104.98 ECTS

Notes:

* 1 ECTS = 30 hours

** 1 credit = 170 minutes = 2,833 hour (50 minutes hours in class and 240 minutes hours self-study) for 16 meetings