

	Module Description/Course Syllabi Study Programme : Magister of Soil Science Department of Soil Science and Land Resources Faculty of Agriculture Universitas Andalas
1.Course number and name	
MIT 82111 Peat land Management	
2. Credits and contact hours/Number of ECTS credits allocated	
3 scs (3-0) / 3,546	
3. Instructors and course coordinator	
1. Dr. Ir. Teguh Budi Prasetyo, MS 2. Dr. Mimien Hariyanti, SP, MP	
4. Text book, title, author, and year	
1. Admin DPKG 2. 2023a. Pedoman Teknis Pemulihan Ekosistem Gambut 2. Admin DPKG 2. 2023b. Pengelolaan Ekosistem Gambut Berkelanjutan di Indonesia 3. Agus, F. dan I G.M. Subiksa. 2008. Lahan Gambut: Potensi untuk pertanian dan aspek lingkungan. Balai Penelitian Tanah dan World Agroforestry Centre (ICRAFT) Bogor, Indonesia. 4. Ditjen Perkebunan. 2010. Arah dan strategi pengembangan perkebunan rakyat menghadapifenomena iklim. Paper disampaikan pada Rapat Kerja Balai Besar Litbang Sumber daya Lahan Pertanian (BB SDLP), Semarang, 2010. 5. Hartatik, W., 2003. Pemanfaatan Beberapa Jenis fosfat alam dan SP-36 pada Tanah Gambut yang Diberi Bahan Amelioran Tanah Mineral 6. Scientific Journals in Soil Sciences and Environment	
5. Specific course information	
A. Brief description of the content of the course (catalog description)	
This course discusses the importance of land survey and mapping in relation to land use planning; explanation of soil characteristics and the differences due to the influence of soil formation factors; methods of land survey; interpretation of survey data for land; drainage management; management for annual and perennial crops	
B. Course Content	

Introduction:

- Terminology of Peat land
- Formation of Peat land,
- History of peat land name Physical Characteristics of Peat land: What is restoration
- Government Regulation regarding Peat land Protection
- Peat restoration measures
- Several restoration methods: borehole, canal blocking.
- BRG: Peat Restoration Agency

The main criteria for the suitability of peat lands

- Methods for determining the suitability of peat lands
- Distribution of peat lands according to suitability
- Characteristics of peat lands according to their suitability
- Peat land suitability

Beginning of Utilization of peat

- Peat land for Agriculture
- Management of Peat for food crops
- Peat Management for Plantation crops
- Farming model on peat land

Peat land fertility

- Chemical properties of peat soil
- Amelioration and fertilization technology on peat land

The issue of climate change due to peat land use for oil palm

- Issue of peat degradation due to expansion of oil palm plantations
- Peat physical, chemical, biological characteristics under oilpalm plantation
- Management of peat land for oil palm on a large scale (company) andsmallholderplantation scale.

Regional Spatial Planning

- Arrangement of Water Management Unit
- Infrastructure Improvements
- Institutional and Institutional Strengthening
- Community Participation and Empowerment
- Market Expansion
- Capital Strengthening
- Utilization of Science and Technology

C. Semester when the course unit is delivered

Even Semester

D. Mode of delivery (face-to-face, distance learning)
Face to Face
6. Intended Learning Outcomes (CPL)
ILO 2 : An ability to classify soil, to evaluate land capability and suitability, as well as to determine the alternative utilization for sustainable agriculture and environment PI 3 : an ability to determine suitable land use management
ILO 3 : An ability to use technology in identifying and solving problems of soil, land resource, environment problems independently, eligibly, and accurately PI 3 : An ability to conserve soil for sustainable agriculture and environment
ILO 5 : An ability to innovate in development of science and industry PI 1 : An ability to innovate for improving land management PI 2 : An ability to create the team work
7. Course Learning Outcomes (CPMK) ex. The student will be able to explain the significance of current research about a particular topic.
1. Students will be able to determine suitable land management to reach sustainable agriculture and environment 2. Students will be able to find out the best method to conserve soil problem for sustainable agriculture and environment 3. Students will be able to innovate in soil science and management of land resources 4. Students will be able to design and evaluate the work of the team
8. Learning and teaching methods
Cooperative Learning and Problem base method
9. Language of instruction
Bahasa and English (English Class)
10. Assessment methods and criteria

Summative Assessment :

1. Independent tasks/small tasks : 5 %
2. Large tasks/group tasks : 5%
3. Quiz : 5 %
4. Practicum : 25%
5. Mid Semester : 25%
6. Final Semester : 25%
7. Integrity, discipline, hard work, courtesy/ethics/have values, and confidence(character),presence : 5%

Formative Assessment:

1. Minute paper