

Module Name	Marginal Land Management
Module Level, if applicable	Intermediate
Code if Applicable	0420205611
Subtitle, if applicable	-
Courses, if applicable	0420205611 (Marginal Land Management)
Semester(s) in which the module is taught	6
Person responsible for the module	Dr. Ir. Ali Ikhwan, MP
Lecturer	Dr. Ir. Ali Ikhwan, MP Dr. Ir. Wahono, MP Ilmam Zul Fahmi, SP., MSc
Language	Indonesian
Relation to curriculum	Specialisation Courses for undergraduate program in Department of Agrotechnology, especially on soil field in Faculty of Agriculture and Animal Science.
Type of teaching, contact hours	Type of teaching: Face to face, Presentation, Mini Project Contact hours : 2 hours x 16 weeks = 32 hours
Workload	Class : 2 hours x 14 weeks = 28 hours Practical class : 0 hours x 14 weeks = 0 hours Examination 2 hours x 2 time = 4 hours Total 32 Hours
Credit points	SKS 2 SCH x (1.5) = 3 ECTS
Requirements according to the examination regulations	1. Registered in this course 2. Minimum 80% attendance in this course 3. Presenting a mini project
Recommended prerequisites	Has taken courses in soil science and soil fertility and land suitability analysis
Module Objectives (Intended learning outcomes)	On successful completion in this course, student should be able to: A. Course Learning Outcomes 1. Able to analyze marginal land types and their formation 2. Able to manage marginal land use according to ecosystem and environmental principles 3. Able to analyze commodity suitability and land suitability in the use of various types of marginal land B. Learning Outcomes 1. Able to identify and analyze the occurrence of marginal land and its types 2. Able to manage the utilization of various types of marginal land in accordance with the surrounding ecosystem 3. Able to implement planting planning management in various marginal lands
Module Content	Characteristics of Marginal Lands, Management Strategies, Crop Selection and Rotation, Sustainable Practices of: 1. Peatlands 2. Acid sulfate lands 3. Swamps 4. Dry lands 5. Sand Land Management
Study and examination requirements and forms of examination	Cognitive: Midterm exam, Final exam, Quizzes, Assignments, and Mini Project Affective: Assessed from the element /variables achievement, namely (a) Contributions (attendance, active, role, initiative, and language), (b) Being on time, (c) Effort.
Media employed	Classical teaching tools with white board and power point presentation, Laptop, LCD, Ms. Office, Wi-Fi, MyKlass, stationary, white board, ArcGIS

<p>Recommended Literature</p>	<ol style="list-style-type: none"> 1. Poria V, Dębiec-Andrzejewska K, Fiodor A, Lyzohub M, Ajijah N, Singh S, Pranaw K. Plant Growth-Promoting Bacteria (PGPB) integrated phytotechnology: A sustainable approach for remediation of marginal lands. <i>Front Plant Sci.</i> 2022 Oct 21;13:999866 2. Csikós, N. and Tóth, G. (2023) 'Concepts of agricultural marginal lands and their utilisation: A review', <i>Agricultural Systems</i>. 3. Kuang W, Liu J, Tian H, Shi H, Dong J, Song C, Li X, Du G, Hou Y, Lu D, Chi W, Pan T, Zhang S, Hamdi R, Yin Z, Yan H, Yan C, Wu S, Li R, Yang J, Dou Y, Wu W, Liang L, Xiang B, Yang S. Cropland redistribution to marginal lands undermines environmental sustainability. <i>Natl Sci Rev.</i> 2021 May 22;9(1):nwab091. 4. Ilyas H, Masih I. Intensification of constructed wetlands for land area reduction: a review. <i>Environ Sci Pollut Res Int.</i> 2017 May;24(13):12081-12091. 5. Kgaphola MJ, Ramoelo A, Odindi J, Mwenge Kahinda JM, Seetal AR, Musvoto C. Impact of land use and land cover change on land degradation in rural semi-arid South Africa: case of the Greater Sekhukhune District Municipality. <i>Environ Monit Assess.</i> 2023 May 23;195(6):710. 6. Niu A, Lin C. Managing soils of environmental significance: A critical review. <i>J Hazard Mater.</i> 2021 Sep 5;417:125990. 7. Osaki, M., Nursyamsi, D., Noor, M., & Segah, H. (2016). Peatland in Indonesia. In <i>Tropical peatland ecosystems</i> (pp. 49-58). Springer, Tokyo. 8. Ekowati, D., & Nasir, M. (2011). The Growth of Maize Crop (<i>Zea Mays</i>, L.) Bisi-2 Variety on Rejected and Non Rejected Sand at Trisik Kulon Progo Beach (the Growth of Maize Crop (<i>Zea Mays</i> L.) Bisi-2 Variety on Rejected and Non Rejected Sand at Trisik Kulon Beach Progo). <i>Journal of Man and the Environment</i>, 18(3), 220-231. 9. Yudono, P., Sulistyaningsih, E., & Hanudin, E. (2008). The Effect of Soil Improvement on Soil Physical Properties and Shallot Yield on the Sand Land of Bugel Beach, Kulon Progo Regency. <i>Agrin</i>, 12(1), 67-77.
<p>Date of Last Amendment</p>	<p>23rd August 2022</p>