USK UNIVERSITAS SYIAH KUALA

FACULTY OF AGRICULTURE

DEPARTMENT OF SOIL SCIENCE

UNDERGRADUATE PROGRAM **MODULE HANDBOOK**

Module designation	Land Reclamation and Rehabilitation (SSOL6006)
Semester(s) in which the module is taught	6th semester
Person responsible for the module	Prof. Dr. Ir. Sufardi, M.S.
Language	Indonesian, English
Relation to curriculum	Elective module for Soil Science Departement
Teaching methods	Practice (field practice/ lab practice)
Workload (incl. contact hours, self-study hours)	✔ 100 minutes lecture and discussion per week ✔ 120 minutes structured tasks per week ✔ 120 minutes learn to be independent per week
Credit points	2 SKS = 3.2 ECTS
Required and recommended prerequisites for joining the module	-
Module objectives/intended learning outcomes	✔ Students are able to explain the factors causing land and soil degradation, as well as various forms of degradation and soil problems in tropical regions. ✔ Students are able to dentify and describe issues related to critical and dry lands, acid mineral soils, peatlands, post-mining lands, saline soils, acid sulfate soils, and paddy fields. ✔ Students are able to explain the concepts of land reclamation and rehabilitation, including various approaches and methods for land recovery and sustainable management.
Content	Provide knowledge about the basic concepts of Land Reclamation and Rehabilitation which include perceptions about land and land, the function of land as a resource, forms, and causes of land degradation, land rehabilitation concepts, land degradation assessment methods, land/land reclamation concepts, and approaches, dryland reclamation critical, ex-mining land reclamation, peat land reclamation, saline/sodic land reclamation, acid sulfate land reclamation, climate change mitigation, and applied models of sustainable agriculture.
Exams and assessment formats	Quiz, assignment, midterm exam, final exam
Study and examination requirements	✔ Assignment: 20% ✔ Quiz: 20% ✔ Midterm exam: 30% ✔ Final exam: 30%

Reading list	1. Agus, F., Soelaeman, Y. and Anda, M., 2019. Petunjuk teknis rehabilitasi lahan bekas tambang untuk pertanian. Badan Penelitian dan Pengembangan Pertanian, Jakarta. 2. Aizid, R., 2021. Buku Pintar Penanggulangan Tanah Longsor. DIVA PRESS. 3. Ivonin, V.M., Voskoboinikova, I. V and Matvienko, E.Y., 2018. Theoretical concept of adaptive forest land reclamation of agricultural landscapes. International Journal of Civil Engineering and Technology, 9(13), pp.95–103. 4. Munshower, F.F., 2018. Practical handbook of disturbed land revegetation. CRC Press. 5. NUGROHO, Y., n.d. REKAYASAN TANAH UNTUK PERBAIKAN TANAMAN REKLAMASI PASCA PENAMBANGAN BATUBARA. 6. Priyono, I. and MM, S.E.S.H., 2022. Kumpulan Informasi Terutama Tentang Bencana Tanah Longsor dan Banjir Serta Upaya Mitigasinya. Unisri Press. 7. Sufardi, M. R. Alocasia, Syakur (2023). Degradasi dan Rehabilitasi Lahan. USK Press, Banda Aceh.