



USK
UNIVERSITAS
SYIAH KUALA

FACULTY OF AGRICULTURE
DEPARTMENT OF SOIL SCIENCE

UNDERGRADUATE PROGRAM

MODULE HANDBOOK

Module designation	Soil and Water Conservation (SSOL2022)
Semester(s) in which the module is taught	4 th Semester
Person responsible for the module	Prof. Dr. Ir. Hairul Basri, M.Sc
Language	Indonesian, English
Relation to curriculum	Compulsory module for Soil Science Department
Teaching methods	Lecture, small group discussion, interactive discussion
Workload (incl. contact hours, self-study hours)	<ul style="list-style-type: none">✓ 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	SSOL2017
Module objectives/intended learning outcomes	<ul style="list-style-type: none">✓ Students can master and explain the causes of soil degradation and the importance of conservation efforts, as well as the processes and types of erosion, and the factors that influence the severity of erosion✓ Students are able to master, explain, identify, plan, design, and evaluate soil and water conservation measures, as well as explain government policies related to the planning and implementation of soil and water conservation programs in Indonesia
Content	An in-depth study of the concepts and causes of soil degradation and the importance of conservation efforts; the processes and types of erosion; the factors affecting the extent of erosion; methods for measuring and predicting erosion; planning and implementing soil conservation practices; and understanding government policies related to the planning and implementation of soil and water conservation programs in Indonesia.
Exams and assessment formats	Assignment, Quiz, Case Method, Midterm exam, Final exam
Study and examination requirements	<ul style="list-style-type: none">✓ Quiz: 10%✓ Assignment: 10%✓ Case Method: 50%✓ Midterm exam: 15%✓ Final exam: 15%

Reading list	<ol style="list-style-type: none">1. Gachene, C. K., Nyawade, S. O., & Karanja, N. N. (2020). Soil and water conservation: An overview. <i>Zero Hunger</i>, 810-823.2. López-Vicente, M., & Wu, G. L. (2019). Soil and water conservation in agricultural and forestry systems. <i>Water</i>, 11(9), 1937.3. Belachew, A., Mekuria, W., & Nachimuthu, K. (2020). Factors influencing adoption of soil and water conservation practices in the northwest Ethiopian highlands. <i>International soil and water conservation research</i>, 8(1), 80-89.4. Di Prima, S., Castellini, M., Pirastru, M., & Keesstra, S. (2018). Soil water conservation: dynamics and impact. <i>Water</i>, 10(7), 952.5. Xiong, M., Sun, R., & Chen, L. (2018). Effects of soil conservation techniques on water erosion control: A global analysis. <i>Science of the Total Environment</i>, 645, 753-760.
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