



USK
UNIVERSITAS
SYIAH KUALA

FACULTY OF AGRICULTURE
DEPARTMENT OF SOIL SCIENCE

UNDERGRADUATE PROGRAM

MODULE HANDBOOK

Module designation	Disaster Management and Environment (MKWU1005)
Semester(s) in which the module is taught	2 nd Semester
Person responsible for the module	USK Team
Language	Indonesian, English
Relation to curriculum	University compulsory module
Teaching methods	Lecture, interactive, small group discussion, presentation
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	-
Module objectives/intended learning outcomes	<ul style="list-style-type: none"> ✓ Students exhibit positive attitudes and behaviours toward disaster risk reduction and environmental conservation within the context of course-based learning. ✓ Students can demonstrate the ability to make precise decisions based on information and data analysis to resolve problems in their area of expertise, integrated into the course learning process. ✓ Students can design a basic contingency plan as a critical measure in disaster management, implemented within the framework of the course ✓ Students can design a simple project aimed at preventing environmental degradation and promoting ecological sustainability, integrated within the course curriculum
Content	<p>This course provides students with an introduction to the fundamental principles of disaster risk reduction (DRR) and its close interconnection with environmental and socio-economic conditions in disaster-prone areas. The course emphasizes a holistic understanding of disaster risks, vulnerabilities, and resilience, while exploring how these factors influence and are influenced by human-environment interactions. Key lecture materials focus on critical elements of DRR that must be integrated into sustainable development planning in regions vulnerable to natural hazards (such as earthquakes, floods, tsunamis, landslides, volcanic eruptions, and extreme weather events) and/or experiencing severe environmental degradation. Contemporary socio-environmental challenges</p>

	are also addressed, including climate change and its cascading impacts, biodiversity loss, deforestation, land-use change, rapid urbanization, water and food insecurity, environmental justice, and the displacement and migration of vulnerable communities. By engaging with these issues, students will develop the capacity to analyze, evaluate, and propose context-specific strategies that balance disaster risk reduction, environmental sustainability, and social equity within development planning.
Exams and assessment formats	Multiple choice, essay, article paper, and oral presentation
Study and examination requirements	<ul style="list-style-type: none"> ✓ Seminar: 20% ✓ Quiz: 20% ✓ Midterm exam: 30% ✓ Final exam: 30%
Reading list	<ol style="list-style-type: none"> 1. Kumar, S., Singh, S. K., Kanga, S., Meraj, G., Farooq, M., & Nathawat, M. S. (Eds.). (2024). Disaster management and environmental sustainability. John Wiley & Sons. 2. Mukherjee, S., Kar, S., & Pal, S. (2021). Environmental disaster management and risk reduction. In Environmental management: Issues and concerns in developing countries (pp. 221-252). Cham: Springer International Publishing. 3. Husna, C., Firdaus, R., Wardani, E., & Jannah, S. R. (2022). Disaster preparedness among disaster management agency officers: a study from rural and urban areas in Aceh, Indonesia. <i>International journal of disaster resilience in the built environment</i>, 13(4), 484-497. 4. Rayawan, J., Tipnis, V. S., & Pedraza-Martinez, A. J. (2021). On the connection between disaster mitigation and disaster preparedness: the case of Aceh province, Indonesia. <i>Journal of Humanitarian Logistics and Supply Chain Management</i>, 11(1), 135-154. 5. Rachmawati, R., Novita, R., & Fitria, I. (2021). The effect of disaster management education on mother's under five preparedness facing floods in aceh province. <i>Open Access Macedonian Journal of Medical Sciences</i>, 9(E), 1032-1035.