USK UNIVERSITAS SYIAH KUALA

FACULTY OF AGRICULTURE

DEPARTMENT OF SOIL SCIENCE

UNDERGRADUATE PROGRAM **MODULE HANDBOOK**

Module designation	Spatial Planning Application (SSOL6019)
Semester(s) in which the module is taught	7th semester
Person responsible for the module	Prof. Dr. Ir. Abubakar Karim, MS
Language	Indonesian, English
Relation to curriculum	Elective module for area of interest in Soil Science Deoartment
Teaching methods	Lecture, small group discussion, presentation
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 understand and explain the concept, importance, and challenges of regional spatial planning, and apply this knowledge to support sustainable development. ✔ Students are able to conduct spatial planning using appropriate tools and technologies, including the ability to generate and interpret spatial data for regional development purposes. ✔ Students are able to apply GIS and remote sensing in spatial planning, integrate soil science knowledge into spatial plans, critically evaluate existing plans, and contribute professionally as a competent and ethical spatial planning consultant in the field of soil and agricultural sciences.
Content	This course is offered in the sixth semester (Even Semester, Elective). It provides knowledge on the application of Regional Spatial Planning (RTRW) using advanced technologies to allocate land for various sustainable development purposes, based on biophysical suitability and land resource characteristics. The resulting spatial allocations are implemented to support environmentally friendly and sustainable regional development. The spatial allocation process utilizes geospatial data formatted as spatial planning maps at various levels (National, Provincial, Regency/Municipality, and Detailed Spatial Plans). Geographic Information System (GIS) technology is employed to support regional development planning activities, with a focus on land use in various agricultural sectors.
Exams and assessment formats	Quiz, Assignments, Midterm exam, Final exam

Study and examination requirements	✔ Assignments: 20% ✔ Quiz: 20% ✔ Midterm exam: 30% ✔ Final exam: 30%
Reading list	1. Laws (Undang-Undang) Related to Spatial Planning, Forestry, Agriculture, and Other Sectors 2. Government Regulations (Peraturan Pemerintah) Related to Spatial Planning, Forestry, Agriculture, and Other Sectors 3. Ministerial Regulations (Peraturan Menteri) Related to Spatial Planning, Forestry, Agriculture, and Other Sectors 4. Qanun Aceh No. 19 Tahun 2013 tentang RTRW Aceh 5. Unwin, D. (2024). Introductory spatial analysis. Routledge. 6. Hall, P., & Tewdwr-Jones, M. (2019). Urban and regional planning. Routledge. 7. Gonçalves, J., & Ferreira, J. A. (2015). The planning of strategy: a contribution to the improvement of spatial planning. Land Use Policy, 45, 86-94.