USK UNIVERSITAS SYIAH KUALA

FACULTY OF AGRICULTURE

DEPARTMENT OF SOIL SCIENCE

UNDERGRADUATE PROGRAM **MODULE HANDBOOK**

Module designation	Practicum of Spatial Planning Application (SSOL6021)
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 Department
Teaching methods	Practice (field practice/ lab practice)
Workload (incl. contact hours, self-study hours)	✔ 170 minutes practice per week (field/laboratory 50 minutes; structured learning 60 minutes; 60 minutes self study)
Credit points	1 SKS = 1.6 ECTS
Required and recommended prerequisites for joining the module	-
Module objectives/intended learning outcomes	✔ Students are able to understand and comprehend spatial planning concepts, the importance of regional spatial plans, and related issues, and utilize them to support sustainable development planning. ✔ Students are able to understand how to carry out spatial planning processes, operate relevant tools and equipment, keep up with advancements in spatial technology, and present the results in the form of spatial data for sustainable development planning. ✔ Students are able to apply Geographic Information Systems (GIS) and remote sensing technologies in the preparation of regional spatial plans, be able to interpret and use existing spatial plans, and provide constructive input for improvement when necessary ✔ Students are able to understand the interrelationship between various soil science disciplines and regional spatial planning (RTRW), thus becoming capable of improving the planning process, encouraging stakeholders to utilize spatial planning documents, and ultimately becoming competent, insightful, and ethical spatial planning consultants who can build a professional career in soil science and agriculture in a sustainable manner

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	Case method, team based project
Study and examination requirements	✔ Case Method: 50% ✔ Team based project: 50%
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.