



USK
UNIVERSITAS
SYIAH KUALA

FACULTY OF AGRICULTURE
DEPARTMENT OF SOIL SCIENCE

UNDERGRADUATE PROGRAM

MODULE HANDBOOK

Module designation	Agroclimatology (SSOL1006)
Semester(s) in which the module is taught	2 nd 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, 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 can understand the fundamental concepts of climatology/meteorology and agroclimatology, including the elements of climate/weather and their relationship to the field of agriculture.✓ Students can understand the climate change issues that have a direct impact on the agricultural sector, as well as the mitigation and adaptation efforts within this field.
Content	This lecture covers the scope and fundamental concepts of agroclimatology, emphasizing the importance of climate science in agriculture. Topics include the structure of the atmosphere, elements of weather and climate, environmental issues, and climate change. The course also explores the impact of weather and climate on agriculture and plant pest organisms, the application of climate information in crop management, climate classification systems, and the concept of land water balance.
Exams and assessment formats	Paper assignment, Quiz, Midterm exam, Final exam
Study and examination requirements	<ul style="list-style-type: none">✓ Quiz: 10%✓ Assignment: 20%✓ Midterm exam: 25%✓ Final exam: 45%

Reading list	<ol style="list-style-type: none">1. Rusmayadi, G. 2019. Agroklimatologi di Era Perubahan Iklim Global. Malang: CV IRDH.2. Wicaksono, A., dkk. 2023. Pengantar Agroklimatologi. Surakarta: Tagta Media Group.3. Hatfield, J. L., Sivakumar, M. V., & Prueger, J. H. (Eds.). (2020). Agroclimatology. John Wiley & Sons.4. Cobon, D. H., Baethgen, W. E., Landman, W., Williams, A., van Garderen, E. A., Johnston, P & Davis, P. (2020). Agroclimatology in grasslands. Agroclimatology: Linking Agricult Prasad, P. V. V., Djanaguiraman, M., Stewart, Z. P., & Ciampitti, I. A. (2020). Agroclimatology of maize, sorghum, and pearl millet. Agroclimatology: linking agriculture to climate, 60, 201-241. ure to Climate, 60, 369-423.5. Prasad, P. V. V., Djanaguiraman, M., Stewart, Z. P., & Ciampitti, I. A. (2020). Agroclimatology of maize, sorghum, and pearl millet. Agroclimatology: linking agriculture to climate, 60, 201-241.
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