



USK
UNIVERSITAS
SYIAH KUALA

FACULTY OF AGRICULTURE
DEPARTMENT OF SOIL SCIENCE

UNDERGRADUATE PROGRAM

MODULE HANDBOOK

Module designation	Introduction to Agronomy (SSOL1010)
Semester(s) in which the module is taught	2 nd Semester
Person responsible for the module	Nanda Mayani, S.P., M.P.
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 identify appropriate crop production technologies and apply good agricultural practices to address agricultural problems. ✓ Students can adapt to changing situations in agricultural practices to improve crop production yields ✓ Students can possess an in-depth mastery of theoretical concepts in agricultural science and crop production, and understand their application in solving practical problems ✓ Students can analyze and formulate solutions to procedural problems in crop production based on mastered theoretical knowledge
Content	The Introduction to Agronomy course introduces the core principles of crop management and agricultural science. It covers key factors affecting plant growth—climate, soil, water, and cultivation techniques—along with crop selection, nutrition, and irrigation. The course also addresses pest and disease control, emphasizing sustainable practices and ecological balance to optimize crop production.
Exams and assessment formats	Paper assignment; Quiz; Final exam
Study and examination requirements	<ul style="list-style-type: none"> ✓ Case Method: 50% ✓ Quiz: 6% ✓ Assignment: 24% ✓ Final exam: 20%

Reading list	<ol style="list-style-type: none">1. Sheaffer, C. C. (2012). Introduction to Agronomy. Cengage.2. Villalobos, F. J., & Fereres, E. (Eds.). (2016). Principles of agronomy for sustainable agriculture (p. 543). New York, NY, USA:: Springer.3. Selim, M. M. (2020). Introduction to the integrated nutrient management strategies and their contribution to yield and soil properties. International Journal of Agronomy, 2020(1), 2821678.4. Tariq, M., Ali, H., Hussain, N., Nasim, W., Mubeen, M., Ahmad, S., & Hasanuzzaman, M. (2019). Fundamentals of crop rotation in agronomic management. In Agronomic Crops: Volume 1: Production Technologies (pp. 545-559). Singapore: Springer Singapore.5. Kumar, M. K., Singh, A., Pandey, M. S., & Mehra, M. R. (2025). A Practical Manual on Fundamentals of Agronomy.
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