

Module Name	Digital Technique in Agronomy
Module Level, if applicable	Intermediate
Code if Applicable	0420205613
Subtitle, if applicable	-
Courses, if applicable	0420205613 (Digital Technique in Agronomy)
Semester(s) in which the module is taught	6
Person responsible for the module	Dr. Ir. Wahono, MT. Dr. Ir. Muhidin, MP.. Dr. Ir. Machmudi, M.Si.
Lecturer	Dr. Ir. Wahono, MT. Dr. Ir. Muhidin, MP.. Dr. Ir. Machmudi, M.Si.
Language	Indonesian
Relation to curriculum	Elective course for undergraduate program in Department of Agrotechnology, Faculty of Agriculture and Animal Science.
Type of teaching, contact hours	Type of teaching: Face to face, Practical, Demonstration, Discussion; Mini Project Contact hours : 2 hours x 16 weeks = 32 hours
Workload	Class : 2 hours x 14 weeks = 28 hours Practical class : 0 hours x 14 weeks = 0 hours Examination 2 hours x 2 time = 4 hours Total 32 hours
Credit points	SKS 2 SCH x (1.5) = 3 ECTS
Requirements according to the examination regulations	1. Registered in this course 2. Minimum 80% attendance in this course
Recommended prerequisites	No prerequisites
Module Objectives (Intended learning outcomes)	On successful completion in this course, student should be able to: <ul style="list-style-type: none"> • Comprehend the principles, functionalities, and applications of various digital tools utilized in agronomy. • Develop proficiency in acquiring and processing agronomic data using digital techniques such as satellite imagery, drones, and sensors, and understand the methods for data validation and quality assurance. • Analyze and interpret agronomic data derived from digital sources to make informed decisions related to crop management, pest control, soil health, and resource optimization. • Integrate digital technologies with traditional agronomy practices to enhance crop productivity, sustainability, and resource efficiency while minimizing environmental impacts.
Module Content	The course explores the application of digital tools in agriculture. The text provides an introduction to various tools such as satellite imaging and drones, and elucidates their applications in activities such as crop and soil monitoring. Subsequently, it instructs students on the methods of gathering and verifying data obtained from these tools. Subsequently, it demonstrates the process of analyzing this data in order to make informed decisions in the field

	<p>of agriculture, such as forecasting crop yields or identifying pests. Lastly, it discusses the integration of these digital tools with conventional farming techniques to enhance crop cultivation and optimize resource utilization. Ultimately, students acquire the skills to utilize technology in order to enhance agricultural methods.</p>
<p>Study and examination requirements and forms of examination</p>	<p>Cognitive: Midterm exam, Final exam, Quizzes, Assignments Psychomotor: Practice Affective: Assessed from the element /variables achievement, namely (a) Contributions (attendance, active, role, initiative, and language), (b) Being on time, (c) Effort.</p>
<p>Media employed</p>	<p>Classical teaching tools with white board, digital slide and video presentation, computer for data processing.</p>
<p>Recommended Literature</p>	<p>For Class</p> <ul style="list-style-type: none"> A. Compulsory <ul style="list-style-type: none"> - Book related to digital techniques in agronomy which focus on improving traditional farming and research practices with digital methods and tools. B. Option (referensi pendukung) <ul style="list-style-type: none"> - Book related to Computer Science, Remote Sensing, GIS, Robotics, Precision Farming, IoT, Drones.
<p>Date of Last Amendment</p>	<p>23rd August 2022</p>

