Module Handbook of Introduction to Agricultural Science

Module designation	This course is a compulsory subject for students of the Faculty of Agriculture. This course discusses the basic concepts of introduction to agricultural science and matters related to the development of science and technology, agricultural systems, sustainable agriculture, and understanding the basics of agricultural extension and communication, and agricultural education for human resources who conduct agricultural activities.
Semester(s) in which the module is taught	First Semester
Person responsible for the module	Prof. Ir. Triwibowo Yuwono, Ph.D.
Language	Bahasa Indonesia/Indonesian Language
Relation to curriculum	*Compulsory Course*
Teaching methods	Lecture are conducted in the class with 80-100 students. In every meeting, there will be delivered interactive lecture and discussion. In some topics there will be quizzes, individual and/or group assignment. Details: 1. Lectures 2. Assignment (Individual and Group) 3. Discussion 4. Midterm 5. Final Exam
Workload (incl. contact hours, self-study hours)	- Lectures = 2 SKS x 50 minutes x 16 meetings = 1.600 minutes = 26,67 hours = 26,67 hours/27,1 hours = 0,98 ECTS - Assignment = 2 SKS x 60 minutes x 16 meetings = 1.920 minutes = 32 hours = 32 hours/27,1 hours = 1,18 ECTS - Self Study = 2 SKS x 60 minutes x 16 meetings = 1.920 minutes = 32 hours = 32 hours/27,1 hours = 1,18 ECTS Total Workload = 3,34 ECTS
Credit points	*2/0 Credit Points*
Required and recommended prerequisites for joining the module	*None*

Module objectives/intended learning outcomes	*Program Learning Outcomes (PLO):* *PLO1: Able to explain theoretical concepts regarding plant production technology by giving attention to economic and social-humanitarian aspects to achieve quality, sustainable and profitable agriculture.* *PLO2: Able to describe the latest methodology in the field of microbiology to create environmentally friendly and sustainable agricultural development.* *PLO3: Able to identify, design, implement, and solve problems that arise in the implementation of agricultural businesses.* *Course Learning Outcomes (CLO):* *CLO1: Students are able to explain the basic principles of agricultural science and its crucial role in supporting environmental health and community well-being.* *CLO2: Capable of identifying and explaining the factors influencing agricultural activities, such as land management, climate, crop types, irrigation, fertilizers, and others, along with their respective impacts on crop production yields.* *CLO3: Able to identify agricultural problems and provide sustainable solutions to address them.*
Content	1. *The meaning and role of agriculture (1 meeting)* 2. *Plant Cultivation, Weeds, Plant Breeding (1 meeting)* 3. *Development of agricultural science and technology, agricultural systems and sustainable agriculture (1 meeting)* 4. *Agricultural field (1 meeting)* 5. *Agricultural soil (1 meeting)* 6. *Climate and Global warming (1 meeting)* 7. *Beneficial Microbes (2 meetings)* 8. *Integrated Pest Management (IPM): Pests (2 meetings)* 9. *Integrated Pest Management (IPM): Disease (1 meeting)* 10. *History and Master Strategy of Agricultural Development 2015-2045: Global agreements and International Trade in Agriculture, Agricultural Economics (1 meetings)* 11. *Institutional, Communication dan Agricultural Extension (1 meeting)* 12. *Population welfare, human resources and agricultural education (1 meeting)*

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<tr><td>Examination forms</td><td>High Order Thinking Skills Examination
<table><tr><th colspan="4">Grade and Score</th></tr><tr><th>Grade</th><th>Score</th><th>Grade</th><th>Score</th></tr><tr><td>A</td><td>≥ 85</td><td>C+</td><td>64,0-66,9</td></tr><tr><td>A-</td><td>82,0-84,9</td><td>C</td><td>61,0-63,9</td></tr><tr><td>A/B</td><td>79,0-81,9</td><td>C-</td><td>58,0-60,9</td></tr><tr><td>B+</td><td>76,0-78,9</td><td>C/D</td><td>55,0-57,9</td></tr><tr><td>B</td><td>73,0-75,9</td><td>D+</td><td>52,0-54,9</td></tr><tr><td>B-</td><td>70,0-72,9</td><td>D</td><td>49,0-51,9</td></tr><tr><td>B/C</td><td>67,0-69,9</td><td>E</td><td><49</td></tr></table></td></tr>
<tr><td>Study and examination requirements</td><td>To be able to take the final exams, the minimum of student attendance is 70% out of effective meetings. From 14 meetings, students must take a minimum of 10 meetings to take the exam.</td></tr>
<tr><td>Reading list</td><td>Main References:
Yuwono, Triwibowo. 2021. Pengantar Ilmu Pertanian. Gadjah Mada University Press, Yogyakarta

Additional References:
Recent journals related to agricultural science</td></tr>
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