Dasar-Dasar Agronomi

Course Brief Description:	The student will be able to demonstrate the understanding of agronomical processes related to plant growth and development. Student will also be able to manage plants in sustainable agricultural perspective, and capability to plant breeding and biotechnology. This course covers concept of agronomy, plant classification, plant breeding in vegetative and generative.
Course Learning Objectives:	[1] Student will be able to demonstrate understanding of agronomical processes related to plant growth and development. [2] Students will be able to demonstrate capability to manage plants in sustainable agricultural perspectives [3] Students will be able to demonstrate understanding of plant breeding and biotechnology
Related Expected Learning Outcomes (ELOs):	• ELO-3: Apply knowledge of mathematics, sciences, and engineering principles in agricultural fields. • ELO-6: Manage and utilize agricultural resources effectively, efficiently, and sustainably
Teaching Method	• Lecture and in-depth discussion • Practice in Laboratory • Independent assignment.
Grading Policy	• Quiz and Assignment : 20% • Practice in Laboratory : 30% • Exam : 50%
Reference	• Reddy, SR., 2014. Principles of Agronomy. Kalyani Publishers, New Delhi • Craig C. Sheaffer, Kristine M Moncada, 2011. Introduction to Agronomy: Food, Crops, and Environment 2nd Edition, Cengage Learning
Lecturer Name	• **Prof. Dr. Ir. Elkawakib, M.Si** • **Prof. Dr. Ir. Amir Yassi, M.Si** • **Dr. Ir. Hari Iswoyo, M.Si** • **Ir. Mollah Jaya, MP**

Course Outline

Lecture:	Topic:	
1	Introduction: Basic Concept of Agronomy	
2	Plant Classifications, Habitat and Adaptations	Assignment 1
3	Structural & Functional Plant	Quiz 1
4	Concept of Energy for Plant	
5	Principles of Plant Growth (Lab. Practices)	Assignment 2

6	Plant Development	Quiz 2
7	Generative Culture (Lab. Practices)	
8	**Mid Test**	
9	Vegetative Culture (Lab. Practices)	
10	In-Vitro Culture	Quiz 3
11	In-Vitro Culture Techniques	Assignment 3
12	Green and Sustainable Agriculture	
13	Nitrogen Fixation (Lab. Practices)	Quiz 4
14	Mycorrhiza	Assignment 4
15	Agricultural Biotechnology	
16	**Final Exam**	