Agroinformatika

Course Brief Description:	Student will be able to demonstrate the understanding about agricultural data and their transformation to information system, and have skill to design simple information system related to agricultural engineering field using dbase or web-base software in presenting lump and distributed data. This course covers (1) Data, information and informatics tools, (2) Presentation techniques of database and web-base data, (3) The usage of Internet to prepare spatial and non-spatial information (4) Some cases in Agricultural Engineering area (5) Mini project in Agroinformatics.
Course Learning Objectives:	[1] Student will be able to demonstrate understanding in data and information [2] Students will have skill to design simple information system related to agricultural engineering field [3] Students will have skill to use dbase and web-base software as well as to present lump and distributed data.
Related Expected Learning Outcomes (ELOs):	• ELO-5: Use techniques, skills, and modem tools necessary for agricultural engineering practices. • ELO-6: Manage and utilize agricultural resources effectively, efficiently, and sustainable
Teaching Method	• Lecture and in-depth discussion • Tutorial • Independent assignment • Mini Project
Grading Policy	• Quiz and Assignment : 20% • Exam : 50% • Mini Project : 30%
Reference	Iványi, A. (Editor), 2007. Algorithms of Informatics Vol 2: Applications. Pub. MondAt Kiadó, Budapest. Kumar, P., M. Folk, M. Markus, JC. Alameda, 2005. Hydroinformatics: data integrative approaches in computation, analysis, and modeling. CRC Press, Boca Raton
Lecturer Name	• Prof. Dr. Ir. Ahmad Munir, M.Eng • Dr. Ir. Mahmud Achmad, MP. • Dr. Ir. Daniel Useng, M.Eng.Sc • Samsuar, STP., M.Si.

Course Outline

Lecture:	Topic:	
1	Introduction: Concepts	

2	Data and Information	
3	Software and Tools for Informatics	Assignment 1
4	Database, Web-base Data, & Computer Network	
5	GIS and AHP	Quiz 1
6	Artificial Neural Network for Informatics	
7	Telemetry System in Informatics	Mini Project 1
	Mid Test	
8	Relational Database Design	
9	Query & Semi-structured Databases	Assignment 2
10	Application of DBase for Agriculture	Quiz 2
11	Case in Soil and Water Engineering	
12	Case in Farm Machinery	
13	Case in Post Harvest Technology	
14	Presentation of Mini Project	Mini Project 2
	Final Exam	