Course title : Agriculture Information Systems

Course Basic Information	
Academic Unit:	Faculty of Civil Engineering
Course title:	Agriculture Information Systems
Level:	Master
Course Status:	Elective
Year of Study:	Year 2, Semester 3
Number of Classes per Week:	2+0
ECTS Credits:	3 ECTS
Time /Location:	According to the Timetable
Teacher:	Prof.asoc.Dr. Perparim Ameti
Contact Details:	perparim.ameti@uni-pr.edu
Course Description:	This course includes application of GIS and GPS in agriculture. GIS is used to assist precision farming, balancing the need between the economy return from a crop with the environmental impact. An increasing number of farmers are investing in GPS receivers which can pinpoint precise locations by locking onto a network of satellites. Combining this information with digital mapping using GIS allows the farmer to store, analyze and display a wide range of data.
Course Goals:	After the completion of this course students should be able to demonstrate that they have achieved to raise their practical and theoretical knowledge on precise agriculture. They will be informed about source of geospatial data that are more reliable and accurate.
Expected Learning Outcomes:	After the completion of the course, students should be familiar with: - GPS & Guidance - Yield Monitoring & Mapping - Remote Sensing for Agriculture - Soil & Crop Sensing - Electronics & Control Systems

Student Workload (should be in compliance with student's Learnign Outcomes)			
Activity	**Hours**	**Day/ Week**	**Total**
Lectures	2	15	30
Theory/ Lab Work/Exercises			
Practical Work			
Consultations with the teacher	5	1	5
Field Work			

Test, seminar paper	1	5	5
Homework			
Self-study (library or home)	1	15	15
Preparation for final exam	2	5	10
Assessment time (test, quiz, final exam)			
Projects, presentations, etc.	2	5	10
Total			**75**

Teaching Methods:	- *Lecture* - *Discussion during lectures* - *Exercises* - *Work in group*
Assessment Methods:	In evaluation, the percentage of the attendance of each partial evaluation in the final evaluation must be determined. One of the ways of evaluation would be: First Evaluation: 15% Second Evaluation: 15% Homework or other engagement: 10% Attendance 5% Final Exam 55% Total 100%
Primary Literature:	Francis J. Pierse, David Clay: GIS applications in agriculture, 2007
Additional Literature:	Internet GIS: Distributed Geographic Information Services for the Internet and Wireless Networks, authored by Dr. Zhong-Ren Peng and Dr. Ming-Hsiang Tsou. Published by Wiley. 2003.

Designed teaching plan

Week	Title of the Lecture
Week 1:	Introduction to satellite and GIS techniques in remote sensing analysis and geospatial data management
Week 2:	Geospatial data collection
***Week 3*:**	Structure of data in GIS
Week 4:	Populating ecology considerations for monitoring and managing biological invasions
Week 5:	GPS in agriculture
***Week 6*:**	Data analysis through satellite images
Week 7:	GPS, GIS and remote sensing integration in data management for agriculture crops
Week 8:	GIS application in mapping and management of agriculture data
Week 9:	GIS application in agriculture data management from state institutions
Week 10:	Data sharing and integration
***Week 11*:**	Impact of GIS in decision making
***Week 12*:**	EU regulation and directives in agriculture data management
***Week 13*:**	Conceptual model in agriculture information systems
***Week 14*:**	Required hardware for creation and application of agriculture

	information system
***Week 15*:**	Study visit in State Government, in order to see existing agriculture information systems

Academic Policies and Code of Conduct
We start and finish class on time. *Tools used during class must be cleaned and stored away at the end of class.* *Mobile/smart phones, and other electronic devices (e.g. iPods) must be turned off (or on vibrate) and hidden from view during class time.* *Laptop and tablet computers are allowed for quiet use only; other activities such as checking personal e-mail or browsing the Internet are prohibited.*

Note | If a student has more than 3 class assignements evaluated below 50% he/she loses the right on taking the final exam. Evaluation is done from 0-100 %.