AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title		Computer Programming Techniques in Agricultural Engineering						
Course Code		ZTY533		Couse Level		Second Cycle (Master's Degree)		
ECTS Credit	8	Workload	200 *(Hours)*	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		Computer programming techniques for the implementation of agricultural engineering, C + + programming language, mathematical, statistical and physical models, computer programs, transfer, automated connection of C + + language problems in agricultural engineering, and computer languages in all areas of application in agriculture.						
Course Content		The introduction of irrigation and drainage engineering computer applications, the introduction of mathematical models, statistical models and modeling techniques includes topics such as micro-irrigation systems computer-aided automation.						
Work Placement		N/A						
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Project Based Study, Individual Study, Problem Solving				
Name of Lecturer(s)		Lec. Safiye Pınar TUNALI						

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading

1	C++ How to Program (5th Edition) (How to Program) Deitel & Associates;

Week	Weekly Detailed Course Contents	
1	Theoretical	The introduction of computer applications in Irrigation and Drainage Engineering
2	Theoretical	Introduction to Visual Basic and C + + programming languages
3	Theoretical	Written in C + + programming techniques and short cycles
4	Theoretical	The development of the model with C + + language
5	Theoretical	The introduction of mathematical models
6	Theoretical	The introduction of statistical models and modeling techniques
7	Theoretical	Programming techniques used in modeling
8	Theoretical	Programming techniques used in modeling
9	Intermediate Exam	MID-TERM EXAM
10	Theoretical	Surface irrigation systems optimized C + + programming language
11	Theoretical	Micro-irrigation systems, computer-aided automation
12	Theoretical	Acess, Excel and Visual Basic integration techniques
13	Theoretical	Access databases, presentation and use in agriculture
14	Theoretical	Access databases interrogation techniques
15	Theoretical	Other Applications
16	Final Exam	FİNAL EXAM

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	5	2	98
Lecture - Practice	14	4	2	84
Midterm Examination	1	6	2	8
Final Examination	1	8	2	10
			Total Workload (Hours)	200
			[Total Workload (Hours) / 25*] = **ECTS**	8

25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	The use of mathematical models in Agricultural Engineering
2	Optimization at Agricultural Engineering
3	Optimization applications through various software in agricultural engineering
4	The most appropriate way to resolve the current problems economicaly and properly
5	The use of some specific software in agricultural engineering

Programme Outcomes *(Agricultural Structures and Irrigation Master)*

1	Ability to use, evaluate and improve the knowledge gained from field of study at an expert level
2	Ability to reach necessary the knowledge
3	To able to conduct scientific studies (research) related to the field
4	Ability to consider academical and ethical values the studies
5	Ability to improve editing method and evaluate the results of researches
6	The studies, the ability to reach result and application, develop new approaches
7	A topic in the field of written, verbally and visually as the ability to express
8	Effective use of Turkish language and ability to communicate in a foreign language both written and verbal

Contribution of Learning Outcomes to Programme Outcomes *1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High*

	L1	L2	L3	L4	L5
P1	4	5	5	5	5
P2	5	5	5	5	5
P3	4	4	4	5	5
P4	4	5	4	4	4
P5	5	5	5	4	4
P6	3	4	3	4	4
P7	5	5	5	4	4
P8	4	4	4	4	4