AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title		Fracture Mechanics						
Course Code		MME521		Couse Level		Second Cycle (Master's Degree)		
ECTS Credit	8	Workload	195 *(Hours)*	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		By teaching students object oriented programming being the most advanced programming way, help students to use it in their studies						
Course Content		Character Based Computer Programming(C++, Pascal, ?), Commands and Variables, Block Structure, Sub programs, Sequences, Operations with Sequences, Sorting, Series. Operations with Series,Matrices, Operations with Matrices, Packed Programme Usage						
Work Placement		N/A						
Planned Learning Activities and Teaching Methods		Explanation (Presentation), Project Based Study, Individual Study						
Name of Lecturer(s)								

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	15
Final Examination	1	60
Quiz	4	15
Assignment	5	5
Term Assignment	1	5

Recommended or Required Reading

1	Algorithms and Data Structures in C++, Alan Parker CRC Press, CRC Press LLC 0849371716 Pub Date: 08/01/93.
2	Programming with Objects: A Comparative Presentation of Object-Oriented Programming with C++ and Java by Avinash C. Kak ISBN:0471268526 John Wiley & Sons, 2003.
3	Foundations of C++/CLI The Visual C++ Language for .NET 3.5, Gordon Hogenson, APress,2008.

Week	Weekly Detailed Course Contents	
1	Theoretical	Going through the interface of Visual Studio 2008 and writing simple programs.
2	Theoretical	C Language: main sections of C programming,
3	Theoretical	Variables and constants
4	Theoretical	Expressions and operators
5	Theoretical	Functions, basic program flow control, basic input and output functions
6	Theoretical	Arrays, pointers, characters and strings, structures, variable scope, advanced program control
7	Intermediate Exam	Midterm Exam
8	Theoretical	C++ Language: classes, arrays, pointers
9	Theoretical	Function overloading,
10	Theoretical	Inheritance, C++ I/O virtual functions
11	Theoretical	Templates and error checking
12	Theoretical	Run time type cast operators, namespaces, applications.
13	Theoretical	Applications
14	Theoretical	Applications
15	Theoretical	Applications
16	Final Exam	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	16	2	4	96
Assignment	5	0	3	15
Term Project	1	15	10	25
Quiz	4	4	1	20
Midterm Examination	1	15	2	17

Final Examination	1	20	2	22
		Total Workload (Hours)		195
		[Total Workload (Hours) / 25*] = **ECTS**		8

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	To be able to recognize character-based computer program (C + +, Pascal, ...), in general
2	To be able to learn the commands and operations.
3	To be able to learn variable and variable types.
4	To be able to examine and learn the structures of the block.
5	To be able to solve block structure problems

Programme Outcomes *(Mechanical Engineering Master's Without Thesis)*

1	To be able to access wide and deep information with scientific researches in the field of Engineering, evaluate, interpret and implement the knowledge gained in his/her field of study
2	To be able to complete and implement "limited or incomplete data" by using the scientific methods
3	To be able to consolidate engineering problems, develop proper method(s) to solve and apply the innovative solutions to them
4	To be able to develop new and original ideas and method(s), to develop new innovative solutions at design of system, component or process
5	To be able to gain comprehensive information on modern techniques, methods and their borders which are being applied to engineering
6	To be able to design and apply analytical, modeling and experimental based research, analyze and interpret the faced complex issues during the design and apply process
7	To be able to gain high level ability to define the required information and data
8	To be able to work in multi-disciplinary teams and to take responsibility to define approaches for complex situations
9	To be able to transfer of the process and results of studies at national and international environments systematic and clear verbal or written
10	To be able to become aware of social, scientific and ethical values guarding adequacy at all professional activities and at the stage of data collection, interpretation, and announcement
11	To be able to become aware of new and developing application of profession and ability to analyze and study on those applications
12	To be able to gain ability to interpret engineering application's social and environmental dimensions and it's compliance with the social environment

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	3	4	5	4	5
P2	3	4	5	4	4
P3	3	4	5	4	5
P4	3	4	5	4	4
P5	3	4	5	4	3
P6	3	4	5	4	4
P7	3	4	5	4	5
P8	3	4	5	4	3
P9	3	4	5	5	5
P10	3	4	5	4	4
P11	3	4	5	4	3
P12	3	4	5	4	5