AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Fundamental Scientific Calculations								
Course Code	AEK119		Couse Level	Short Cycle (Associate's Degree)					
ECTS Credit	3	Workload	75 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Developing scientific calculation compatency of students from the Alternative Energy Resources.								
Course Content	Raising awareness and developing competency and ensuring preparation for students for different calculation needs required by various domains of natural sciences.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion								
Name of Lecturer(s)	Ins. Emre IŞIKLI								

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading	
1	Temel ve Genel Matematik Yazar:Kolektif Yayınevi:Nobel Akademik Yayıncılık
2	Temel Bilimler için İstatistik Yazar: Selahattin Maden, Mehmet Korkmaz Yayınevi: Seçkin Yayıncılık

Week	**Weekly Detailed Course Contents**	
1	Theoretical	Introduction
2	Theoretical	Alternative Energy Resources and scientific calculation needs in this domain
3	Theoretical	Thermodynamic, fluids and heat transfer domain and relevant calculation needs
4	Theoretical	Thermodynamic, fluids and heat transfer domain and relevant calculation needs
5	Theoretical	Electrical measures and relevant required calculations
6	Theoretical	Electrical measures and relevant required calculations
7	Theoretical	Physical measures, distance, area, volume calculations
8	Theoretical	Physical measures, distance, area, volume calculations
9	Theoretical	Rate, proportion and percentage calculations
10	Theoretical	Rate, proportion and percentage calculations
11	Theoretical	Coordinate calculations, slope and distance
12	Theoretical	First-order equations
13	Theoretical	First-order equations
14	Theoretical	Analytic geometry calculations
15	Theoretical	Analytic geometry calculations
16	Final Exam	Final Exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	3	42
Assignment	2	3	2	10
Seminar	1	1	0	1
Midterm Examination	1	10	1	11
Final Examination	1	10	1	11
			Total Workload (Hours)	75
			[Total Workload (Hours) / 25*] = **ECTS**	3
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Preparation for thermodynamic and heat transfer calculations

2	Preparation for electrical calculations
3	Preparation for physical calculations
4	Rate, proportion and percentage calculations
5	Coordinate calculations, slope and first-order equations,

Programme Outcomes *(Alternative Energy Sources Technology)*	
1	To have knowledge about basic science and technology.
2	To have knowledge about basic energy and alternative energy sources.
3	To have knowledge about basic electrical and electronic laws.
4	To have knowledge about the installation and operation of energy facilities.
5	Learning the methods of recycling of waste and use of energy.
6	To have experience in energy generation and project design.

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	5	5	5	5	5
P2	4	4	4	4	4
P3	5	5	5	5	5