AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Scientific Principles of Technology								
Course Code	MSİ107		Couse Level	Short Cycle (Associate's Degree)					
ECTS Credit	2	Workload	50 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	This course is designed to give students the basic knowledge of technology. It has two main aims: to present the basic concepts and principles of physics in a clear and logical way, and to use this information to understand and clarify the many issues and problems encountered in real life.								
Course Content	Physics and measurement, vectors, static equilibrium, motion in one and two dimensions, Newton's laws of motion, work, power, energy and energy conservation, substances and their properties, expansion, transmission forms of heat.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation)								
Name of Lecturer(s)									

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

Recommended or Required Reading	
1	Şu dilden çevir: Türkçe Orhun, Ö., 2005. “Meslek Yüksekokulları İçin Teknolojinin Bilimsel İlkeleri”, ISBN 9755400532, Bilim Teknik Yayınevi, İstanbul
2	Sarı, İ., 2006. “Teknolojinin Bilimsel İlkeleri”, ISBN 975 02 0644 3 Seçkin Yayıncılık, İstanbul.

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction to the course, sizes, unit systems
2	Theoretical	Vectors, vector calculus, force and resultant force
3	Theoretical	Moment, the moment of a force
4	Theoretical	Balance; balance conditions, simple machines
5	Theoretical	Hoists, gears, gear wheels
6	Theoretical	Newton's II. Movement Law, Speed, Acceleration
7	Theoretical	Smooth Linear, Smoothly Changing Motion
8	Intermediate Exam	Midterm
9	Theoretical	Friction, friction surfaces
10	Theoretical	Work and Energy, Kinetic and Potential Energy
11	Theoretical	Energy, power, momentum, impuls, collisions
12	Theoretical	Substances and common properties
13	Theoretical	Pressure in solids, liquids and gases, buoyancy
14	Theoretical	Temperature and temperature, temperature measurement forms
15	Theoretical	Expansion, heat conduction forms
16	Final Exam	Final Exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Midterm Examination	1	8	1	9

Final Examination	1	12	1	13
			Total Workload (Hours)	50
			[Total Workload (Hours) / 25*] = **ECTS**	2
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	To be able to comprehend basic physical rules which are the basis of technology
2	To establish the relationship between the rules of physics and technology
3	To apply the rules of physics in vocational courses
4	Ability to produce solutions according to the rules of physics in the use or design of professional tool-machine, device
5	To solve engineering problems related to the subject

Programme Outcomes *(Fruit and Vegetables Processing Technology)*	
1	To be able to understand social, cultural and social responsibilities and to have the ability to follow national and international contemporary
2	In line with the principles and reforms of Atatürk; Adopting the national, moral, spiritual and cultural values ??of the Turkish Nation, open to universal and contemporary developments, the Turkish language is a rich, rooted and productive language; love and awareness of language; to have the ability to use the foreign language sufficiently and with the habit of reading and professionally.
3	To know the basic hardware units and operating systems of computer, internet to be able to prepare documents, spreadsheets and presentations on the computer by using office programs
4	Gains the theoretical and practical knowledge at the basic level in mathematics, science and professional fields
5	Recognize and analyze the problems with the knowledge of fruit and vegetable technology in the field, interpret the data and propose solutions.
6	According to the prepared work plan and program in laboratories, it can carry out the necessary works to obtain the desired quality product.
7	To have professional and ethical responsibility in business life.
8	It is open to development and change, follows scientific social and cultural innovations and constantly improves itself.

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	3	3	2	2
P2	2	3	3	2	2
P3	3	3	3	2	3
P4	4	4	4	4	4
P5	4	4	4	3	3
P6	3	3	3	3	3
P7	2	2	2	3	3
P8	5	4	4	4	4