



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		History of Natural Sciences							
Course Code		ÇS310		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	2	Workload	50 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		The main objective is for the students to learn which important events, have influenced the development of science and chemistry, and to analyse the methods of scientists at important events in history							
Course Content		Important developments in the history of science will be discussed. This includes important developments in Physics introduced by Galileo and Newton. Important events in chemistry will make up more than half of the course and will include studies of scientists such as Dalton, Lavoisier and Mendelev.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion					
Name of Lecturer(s)		Lec. Mert SOYSAL							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading

1	History of Science and Technology
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Week	Weekly Detailed Course Contents	
1	Theoretical	The solar system: Copernicus, Tycho, Kepler
2	Theoretical	The first scientist: Galileo, Newton, Halley
3	Theoretical	Gases and steam: Boyle, Black, Watt
4	Theoretical	Chemistry: Cavendish, Priestley, Lavoisier
5	Theoretical	The atom: Dalton, Avogadro
6	Theoretical	Electrochemistry: Volta, Davy, Faraday
7	Theoretical	Light: Young, Maxwell, Einstein
8	Intermediate Exam	Midterm
9	Theoretical	Periyodik cetvel
10	Theoretical	The development of thermodynamics as a science
11	Theoretical	Cathode rays and the electron
12	Theoretical	x-rays, radioactivity and atomic structure
13	Theoretical	Emission spectra and the electronic structure of the atom
14	Theoretical	Bonding and molecular structure
15	Theoretical	Bonding and molecular structure

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	2	42
Midterm Examination	1	2	1	3
Final Examination	1	4	1	5
Total Workload (Hours)				50
[Total Workload (Hours) / 25*] = ECTS				2

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	1. Be able to describe the important events in the development of science
2	2. Be able to analyse the important contributions of scientist in the development of science.
3	3. Be able to summarise in good scientific style the important contributions of a scientist in the development of science.



4	Scientific Development
5	The lives of famous scientists

Programme Outcomes (Dialysis)

1	To be able to comprehend the duties and responsibility of dialysis technicians. To be able to work in a team with members of other health professions.
2	To be able to acquire a general knowledge of human anatomy, physiology and biochemistry
3	To be able to gain knowledge of blood-borne infectious diseases, especially infectious diseases such as hepatitis and universal prevention methods
4	To be able to have knowledge of blood-borne infectious diseases, especially infectious diseases such as hepatitis and universal prevention methods
5	To be able to recognize hemodialysis machine, and have knowledge and skills will be used it during operation of dialysis
6	To be able to have the knowledge of application on peritoneal dialysis and skills be able to train patient on this.
7	To be able to acquire dialysate characteristics, have necessary skills on preparation and application
8	To be able to gain the knowledge and skills on the basic principles of water treatment, application methods, and control of purified water as a level of practitioner
9	To be able to comprehend the principles of patient care, complications during dialysis operation what patients may be encounter and perform necessary knowledge and skills to take necessary measures to protect patient from these complications.
10	To be able to gain knowledge and equipment related to educating on problems that the long-term dialysis patients may have.
11	To be able to understand periodic examinations during the follow up dialysis patients and recognize pathologies in the early period, and have the knowledge and skills to take necessary precautions in time
12	To be able to have the knowledge of the dialysis patients, physiological, social and psychological problems, and perform necessary support skills on these issues for the patient
13	In general to be able to comprehend the knowledge of, drugs, dosage, side effects, and toxic effects, routes of administration of drugs and drug use in patients with chronic renal failure
14	To be able to acquire a high level knowledge of fluid and electrolyte problems with general issues nephrology, acid-base balance disorder, nephrology and urology kidney disease, chronic and acute renal failure.
15	To be able to comprehend the methods of diagnosis and treatment of diseases of the system, and have knowledge of fighting and protecting from especially problems that can be seen in dialysis patients as level of practitioner and getting patient compliance.
16	To be able to have knowledge of statistics and research methods as a level of following the developments, monitoring and interpreting scientific publications.
17	To be able to gain the knowledge of foreign language as a level of communicating and following developments.
18	To be able to be willing to self-improvement as an individual committed to the principles and reforms of Atatürk and keeping on the some of the rules of social life, customs and traditions, depending on the interests of the country on their own interests as a member of society,

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

	L1	L2	L3	L4	L5
P2	3	3	3	3	3
P3	4	4	4	4	4
P8	2	2	2	2	2
P16	4	4	4	4	4
P17	5	5	5	5	5
P18	5	5	5	5	5

