AYDIN ADNAN MENDERES UNIVERSITY
AYDIN VOCATIONAL SCHOOL OF HEALTH SERVICES
MEDICAL SERVICES AND TECHNIQUES
MEDICAL LABORATORY TECHNIQUES
COURSE INFORMATION FORM

Course Title	General Biology								
Course Code	TL105		Couse Level		Short Cycle (Associate's Degree)				
ECTS Credit	5	Workload	125 *(Hours)*	Theory	4	Practice	2	Laboratory	0
Objectives of the Course	Togain competency of performing General Biology Applications								
Course Content	The chemical structure of the cell(water, electrolytes,proteins, carbohydrates, lipids,enzymes, vitamins, hormones and nucleic acids),Biological structure of the cell (prokaryotic cell features,eukaryotic cell features, Gram (+) and Gram (-) features),The physical properties of the cell(diffusion, the solution type,the cell membrane transport,osmosis and dialysis)								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Demonstration, Discussion, Case Study, Individual Study								
Name of Lecturer(s)	Lec. Sevil ÖZCAN, Ins. Hayriye Nurcan EK, Ins. Nimet KILIÇ								

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading	
1	1. Genel Biyoloji Prof. Dr. İlhami Kiziroğlu; 1990Ankara
2	2. Prof. Dr. Demirsoy A. Yaşamın Temel Kuralları, Hacettepe Üniversitesi Yayınları, Ankara, 1995.
3	3. Kadıoğlu, A.; Kaya Y., Genel Botanik, Erzurum 2001.
4	4. Tatlı, Adem. Genel Biyoloji (Botanik), ETAM, Kütahya 1998.

Week	Weekly Detailed Course Contents	
1	Theoretical	The chemical structure of the cell (water, electrolytes)
2	Theoretical	The chemical structure of the cell (proteins, carbohydrates, lipids)
3	Theoretical	The chemical structure of the cell (enzymes, vitamins, hormones and nucleic acids)
4	Theoretical	Biological structure of the cell (eukaryotic cell membrane)
5	Theoretical	Biological structure of the cell (eukaryotic cell organelles-animal)
6	Theoretical	Biological structure of the cell (eukaryotic cell organelles-plant)
7	Theoretical	Biological structure of the cell (eukaryotic cell organelles-plant)
8	Intermediate Exam	Midterm exam
9	Theoretical	Biological structure of the cell (the differences between eukaryotic cells)
10	Theoretical	Biological structure of the cell (prokaryotic cell features)
11	Theoretical	Biological cell structure (Gram (+) and Gram (-) features)
12	Theoretical	The physical properties of the cell (diffusion, the solution type)
13	Theoretical	The physical properties of the cell (liquid systems in living organisms)
14	Theoretical	The physical properties of the cell (the cell membrane transport)
15	Theoretical	The physical properties of the cell (osmosis and dialysis)

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	4	70
Lecture - Practice	14	1	2	42
Assignment	4	1	1	8
Midterm Examination	1	2	1	3

Final Examination	1	1	1	2
			Total Workload (Hours)	125
			[Total Workload (Hours) / 25*] = **ECTS**	5
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Knows the concepts of living and inanimate.
2	Knows the molecules that make up the structure of living things.
3	Knows the cell and its structure.
4	Knows cell division and classification of living things.
5	Prepare the preparation. Finds and examines the image under the microscope.

Programme Outcomes *(Medical Laboratory Techniques)*	
1	To be able to have sufficient back ground in medical laboratory techniques and medical laboratory branches (biochemistry, microbiology,parasitology,sitogenetiketc.);the ability to use theoretical and practical knowledge in these fields.
2	To be able to have the basic theoretical and practical knowledgeand other resources have been supported applications and tools based on secondary-level qualifications gained in the field of Medical Laboratory Techniques Program to-date text boks containing formations
3	To be able to have basic knowledge about structure and function of systems in human, to analyse these data on tissue, cell and diseases.
4	To be able to analyse the medical samples necessary for physicians by using tools, equipment and techniques at the diagnostic and the rapeutic laboratories of health agencies and evaluate the data.
5	To be able to use the medical laboratoy tools and equipments according to rules and technics, and make controls and maintenance of them
6	To be able to perform basic tests of related different medical laboratories, prepare solutions.
7	To be able to perform proper sample collection and transport procedures for the medical laboratory tests from the patient.
8	To be able to perform preanalytical sample preparation procedure, prepare inspection preparations, perform disinfection and sterilization
9	To be able to interpret and evaluate data, define and analyze problems, develop solutions based on research and proofs by using acquired basic knowledge and skills with in the field.
10	To be able to have knowledge about work organization and carry out related practice in medical laboratories
11	To be able to carry out laboratory safety protocols, take individual safety precaution and create safe laboratory environment.
12	To be able to gain the ability to apply by viewing and evaluating the processes related to his/her fields in public and private sector.
13	To be able to gain the awareness of the necessity of life long learning, ability to follow developments in science and technology and self-renewal.
14	To be able to help laboratory experts and medical scientists for their researches
15	To be able to be aware of individual and public health, environmental protection and job security issues, under standing the basic level of the relationship.
16	To be able to grasp principles of Atatürk and there volutions, to ensurenational, ethical, spiritual and cultural values, to adopt to universal and contemporary developments
17	To be able to communicate efficiently for medical service and speak Turkish efficiently.
18	To be able to communicate in English at basic level, utilize foreign language on occupational practice

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

P13	4	4	4	4	5
P14	5	5	5	5	5
P15	3	3	3	4	5
P16	4	5	4	4	5
P17	5	5	5	5	5
P18	5	5	5	5	5