



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

| | | | | | | | | | |
|--|---|----------|------------|--------------|---|----------------------------------|---|------------|---|
| Course Title | Cell Biology | | | | | | | | |
| Course Code | AN002 | | | Course Level | | Short Cycle (Associate's Degree) | | | |
| ECTS Credit | 3 | Workload | 76 (Hours) | Theory | 2 | Practice | 0 | Laboratory | 0 |
| Objectives of the Course | Cell organelles and teaching. Explaining the basic functions of the cell and tasks. | | | | | | | | |
| Course Content | History of Cell Biology, Structure of the cell, prokaryotic and eukaryotic cells, the cell's biochemical structure, biological structures, Inspection Tools, Basic Building Units in Biological Systems, Cell Membrane, alterations in the cell membrane, the cell interior of the membrane system and the cytoplasm, the Golgi complex, mitochondria, Peroxisome, I glyoxysomes, hydrogenosomes and Glikozom are plastids and chloroplasts, ribosomes, lysosomes, centrioles, nucleus and nucleolus, chromosomes and Cell Division | | | | | | | | |
| Work Placement | N/A | | | | | | | | |
| Planned Learning Activities and Teaching Methods | Explanation (Presentation), Discussion | | | | | | | | |
| Name of Lecturer(s) | Ins. Tuğçe OKTAV | | | | | | | | |

Assessment Methods and Criteria

| Method | Quantity | Percentage (%) |
|---------------------|----------|----------------|
| Midterm Examination | 1 | 40 |
| Final Examination | 1 | 60 |

Recommended or Required Reading

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| 1 | Molecular Cell Biology - Palme Yayınevi |
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| Week | Weekly Detailed Course Contents | |
|------|---------------------------------|---|
| 1 | Theoretical | The general structure of the cell, prokaryotic and eukaryotic cells |
| 2 | Theoretical | Biochemical Cell Structure |
| 3 | Theoretical | Basic Structure Units in Biological Systems |
| 4 | Theoretical | Cell membrane |
| 5 | Theoretical | Variations In The Cell |
| 6 | Theoretical | Inside the cell membrane and cytoplasm System |
| 7 | Theoretical | Golgi Complex, the mitokodr |
| 8 | Intermediate Exam | Midterm |
| 9 | Theoretical | Peroxisome glyoxysomes I, and Glikozom on hydrogenosomes |
| 10 | Theoretical | Plastids and chloroplasts |
| 11 | Theoretical | ribosomes |
| 12 | Theoretical | Ribosomes Protein synthesis |
| 13 | Theoretical | lysosomes |
| 14 | Theoretical | Sentriol, Nucleus and Nucleolus |
| 15 | Theoretical | Chromosomes and Cell Division |

Workload Calculation

| Activity | Quantity | Preparation | Duration | Total Workload |
|---------------------------------------|----------|-------------|----------|----------------|
| Lecture - Theory | 14 | 3 | 2 | 70 |
| Midterm Examination | 1 | 2 | 1 | 3 |
| Final Examination | 1 | 2 | 1 | 3 |
| Total Workload (Hours) | | | | 76 |
| [Total Workload (Hours) / 25*] = ECTS | | | | 3 |

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

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|---|---|
| 1 | Explanation of the cell's basic functions and tasks |
| 2 | Explaining the cell cycle |



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|---|---|
| 3 | learn the cell skeleton |
| 4 | learning the structure of the cell membrane |
| 5 | to know the organelles in the cell |

Programme Outcomes (Medical Laboratory Techniques)

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|----|---|
| 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 | 4 |
| P2 | 5 | 5 | 5 | 5 | 5 |
| P3 | 5 | 5 | 5 | 5 | 5 |
| P4 | 3 | 3 | 3 | 3 | 3 |
| P5 | 4 | 4 | 4 | 4 | 4 |
| P6 | 2 | 2 | 2 | 2 | 2 |
| P7 | 3 | 3 | 3 | 3 | 3 |
| P8 | 4 | 4 | 4 | 4 | 4 |
| P9 | 5 | 5 | 5 | 5 | 5 |
| P10 | 4 | 4 | 4 | 4 | 4 |
| P11 | 5 | 5 | 5 | 5 | 5 |
| P12 | 1 | 1 | 1 | 1 | 1 |
| P13 | 4 | 4 | 4 | 4 | 4 |
| P14 | 4 | 4 | 4 | 4 | 4 |
| P15 | 2 | 2 | 2 | 2 | 2 |
| P16 | 1 | 1 | 1 | 1 | 1 |
| P17 | 5 | 5 | 5 | 5 | 5 |
| P18 | 5 | 5 | 5 | 5 | 5 |

