



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

|  |   |   |            |  |   |                                  |   |            |   |
|--|---|---|------------|--|---|----------------------------------|---|------------|---|
| Course Title                                     |   | Basic Topics In Biology I   |            |  |   |                                  |   |            |   |
| Course Code                                      |   | ÇS006   |            | Course Level   |   | Short Cycle (Associate's Degree) |   |            |   |
| ECTS Credit                                      | 3 | Workload  | 75 (Hours) | Theory   | 2 | Practice                         | 0 | Laboratory | 0 |
| Objectives of the Course                         |   | To inform the students who are educated in the health field about the basic biology topics such as organic compounds, cell division, substance transition.  |            |  |   |                                  |   |            |   |
| Course Content                                   |   | Distinction between viability – inanimate, organic and inorganic molecules that form the structure of living cells and organelles, substances through the membrane and metabolism, cell division (types, seen cells and varieties, etc.). |            |  |   |                                  |   |            |   |
| Work Placement                                   |   | N/A   |            |  |   |                                  |   |            |   |
| Planned Learning Activities and Teaching Methods |   |   |            | Explanation (Presentation), Discussion, Case Study, Individual Study |   |                                  |   |            |   |
| 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

|   |  |
|---|--|
| 1 | Genetic (2003) William S. Klug & Michael R. Cummings (Trans. Prof. Cihan Öner), Palme Publishing   |
| 2 | Basic Rules of Life: Volume.1 / Part.1 (2004) Ali Demirsoy, Meteksan   |
| 3 | Biology (2000) William T. Keeton, James L. Gould & Carol Grant Gould (Trans. Prof. Ali Demirsoy, Prof. İsmail Türkan & Prof. Ertunç Gündüz) Palme publishing |

| Week | Weekly Detailed Course Contents |   |
|------|---------------------------------|---|
| 1    | Theoretical                     | Definition of Biology, related science branches and its working areas.  |
| 2    | Theoretical                     | Differences between the live and lifeless.                              |
| 3    | Theoretical                     | Basic molecules involved in the structure of living things (inorganic). |
| 4    | Theoretical                     | Basic molecules involved in the structure of living things (organic).   |
| 5    | Theoretical                     | Basic molecules involved in the structure of living things (organic).   |
| 6    | Theoretical                     | Cell theory, cell variety and structure of the cell.                    |
| 7    | Theoretical                     | Cell theory, cell variety and structure of the cell.                    |
| 8    | Theoretical                     | Structure of the cell membrane and substances through the membrane.     |
| 9    | Theoretical                     | Endoplasmic reticulum, Lysosome and Golgi apparatus.                    |
| 10   | Theoretical                     | Centrosome, Ribosome, Vacuole, Peroxisome.                              |
| 11   | Theoretical                     | Mitochondria, plastids and endosymbiosis theory.                        |
| 12   | Theoretical                     | The cell nucleus and its' role in the cell division, and cell cycle.    |
| 13   | Theoretical                     | Bacterial Asexual reproduction (Binary fission) and mitosis.            |
| 14   | Theoretical                     | Meiosis cell division.  |

### Workload Calculation

| Activity                              | Quantity | Preparation | Duration | Total Workload |
|---------------------------------------|----------|-------------|----------|----------------|
| Lecture - Theory                      | 14       | 0           | 2        | 28             |
| Individual Work                       | 3        | 5           | 2        | 21             |
| Midterm Examination                   | 1        | 10          | 1        | 11             |
| Final Examination                     | 1        | 14          | 1        | 15             |
| Total Workload (Hours)                |          |             |          | 75             |
| [Total Workload (Hours) / 25*] = ECTS |          |             |          | 3              |

\*25 hour workload is accepted as 1 ECTS

### Learning Outcomes

|   |  |
|---|--|
| 1 | Knows the molecules that make up the structure of living things. |
|---|--|



|   |  |
|---|--|
| 2 | Knows the structure, division, feature and various of the cells.                                   |
| 3 | Knows the current basic rules of the substance transition in the cell membrane and the metabolism. |
| 4 | Knows the basic Latin concepts.  |
| 5 | Knows and defines to the cell divisions.   |

#### 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 |
|-----|----|----|----|----|----|
| P1  | 3  | 3  | 3  | 3  | 3  |
| P2  | 5  | 5  | 5  | 5  | 5  |
| P3  | 4  | 4  | 4  | 4  | 4  |
| P4  | 2  | 2  | 2  | 2  | 2  |
| P5  | 2  | 2  | 2  | 2  | 2  |
| P6  | 1  | 1  | 1  | 1  | 1  |
| P7  | 2  | 2  | 2  | 2  | 2  |
| P8  | 3  | 3  | 3  | 3  | 3  |
| P9  | 2  | 2  | 2  | 2  | 2  |
| P10 | 3  | 3  | 3  | 3  | 3  |
| P11 | 1  | 1  | 1  | 1  | 1  |
| P12 | 1  | 1  | 1  | 1  | 1  |
| P13 | 1  | 1  | 1  | 1  | 1  |
| P14 | 1  | 1  | 1  | 1  | 1  |
| P15 | 1  | 1  | 1  | 1  | 1  |
| P16 | 1  | 1  | 1  | 1  | 1  |
| P17 | 2  | 2  | 2  | 2  | 2  |



|     |   |   |   |   |   |
|-----|---|---|---|---|---|
| P18 | 4 | 4 | 4 | 4 | 4 |
|-----|---|---|---|---|---|

