|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **COURSE IDENTIFICATION FORM** | | | | | | | |
| **Course Code and Name:** SM-537 Biochemical and Molecular Tests in the Bacteriological Diagnostic | | | | **Department of :** | | | |
| |  | | --- | | **Semester** | | **Theoretic Hour** | **Practice Hour** | **Total Hour** | **Credits** | **ECTS** | **Education Language** | **Type: Compulsory Elective** |
| Fall | 2 | 2 | 3 | 3 | 6 | Turkish | Optional |
| **Prerequisite (s)** | |  | | | | | |
| **Instructor** | | Prof. Dr. Azime KÜÇÜKGÜL | | | | **Mail : akucukgul@munzur.edu.tr**  **Web :** | |
| **Course Assistant** | |  | | | | **Mail :**  **Web :** | |
| **Groups / Classes** | |  | | | |  | |
| **Course Aim** | | The aim of the course is to enable bacteriology, the importance of microorganisms, location in fish diseases, basic biochemical and molecular techniques and information about the use of these techniques | | | | | |
| **Course Goals** | | * Basic bacteriological, biochemical and molecular information provision and evaluation of diagnostic methods, laboratory practices and information and interpretation of experimental results. | | | | | |
| **Course Learning Outs and Proficiencie*s*** | | * Will learn the concept of bacteriology, identification of microorganisms and the importance of microorganisms in fish diseases. * Will be able to learn morphological recognition of microorganisms using a microscope * Will be able to learn basic information about the genetics of bacteria * Will be able to learn and reviews biochemical and molecular techniques | | | | | |
| **Course Basic and Auxiliary Contexts** | | * Gürdöl, F., Ademoğlu, E. 2006. Biyokimya. Nobel Tıp Kitapevi. 880 sf. * Sienko, Michell J. and Robert A. Plane. 1966. Chemistry: Principles and Properties. McGraw-Hill Book Co., NY. (and other chemistry texts and handbooks) | | | | | |
| **Methods of Give a Lecture** | | Lecture, The relevant notes from application, Question-answer, Discussion, Individual study, Relevant web information | | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Assessment Criteria** | |  | **If Available, to Sign (x)** | **General Average Percentage (%) Rate** |
| **1. Quiz** | **X** | **40** |
| **2. Quiz** |  |  |
| **3. Quiz** |  |  |
| **4. Quiz** |  |  |
| **5. Quiz** |  |  |
| **Oral Examination** |  |  |
| **Practice Examination (Laboratory, Project etc.)** |  |  |
| **Final Examination** | **X** | **60** |
| **Semester Course Plan** | | | | |
| **Week** | **Subjects** | | | |
| **1** | Bacteriology description, identification of microorganisms, and working areas of bacteriology | | | |
| **2** | Introduction and use of the microscope | | | |
| **3** | The introduction of the morphological characteristics of microorganisms | | | |
| **4** | Fish diseases caused by microorganisms, the microorganism host interactions and pathogenicity | | | |
| **5** | Genetic materials and structures | | | |
| **6** | Bacterial chromosomes | | | |
| **7** | DNA replication, replication origin and enzymes of replication | | | |
| **8** | Intermediate exam | | | |
| **9** | Gene regulation and mutations | | | |
| **10** | DNA repair and recombination | | | |
| **11** | Protein synthesis and transformation | | | |
| **12** | Transduction and plasmids | | | |
| **13** | Basic biochemical and molecular methods applied for the diagnosis of fish diseases | | | |
| **14** | Final exam | | | |