|  |
| --- |
| **COURSE IDENTIFICATION FORM** |
| **Course Code and Name:** SM 5080 ANAESTHETIC AGENTS APPLICATIONS IN AQUACULTURE | **Department of :** Fisheries and Aquaculture |
|

|  |
| --- |
| **Semester** |

 | **Theoretic Hour** | **Practice Hour** | **Total Hour** | **Credits** | **ECTS** | **Education Language** | **Type: Compulsory Elective** |
| Fall | 2 | 2 | 4 | 3 | 5 | Turkish | Optional |
| **Prerequisite (s)** | - |
| **Instructor** | Prof. Dr. Volkan KIZAK | **Mail :** volkan.kizak@munzur.edu.tr**Web :** |
| **Course Assistant** | - | **Mail :****Web :** |
| **Groups / Classes** | Master  |  |
| **Course Aim** |  Description of anaesthetic agents and applications, determination of the optimal anaesthetic agent, concentration and duration according to species, comprehension of importance in terms of fish welfare. |
| **Course Goals** |  Ability to understand the properties of anaesthetic agents, apply optimal concentration and duration, comprehend the importance of anaesthetic methods in terms of fish welfare and aquacultural operations. |
| **Course Learning Outs and Proficiencie*s*** | To be able to describe anaesthetic agents and applications, carry out optimal anaesthetic agent, concentration and duration according to species, operate some aquacultural activities easily i.e. fish transport, vaccination, biometrical monitoring etc. |
| **Course Basic and Auxiliary Contexts** | * Anaesthetic and Sedative Techniques for Aquatic Animals (2008), Eds.; Ross L.G. and Ross B., p.222, Blackwell Publishing, UK.
* Encyclopedia of Aquaculture (2000), Ed.; Stickney R.R., p.1063, John Wiley & Sons, USA.
 |
| **Methods of Give a Lecture** | Theoretical and practice |

|  |  |  |  |
| --- | --- | --- | --- |
| **Assessment Criteria** |  | **If Available, to Sign (x)** | **General Average Percentage (%) Rate** |
| **1. Quiz** | **X** |  |
| **2. Quiz** |  |  |
| **3. Quiz** |  |  |
| **4. Quiz** |  |  |
| **5. Quiz** |  |  |
| **Oral Examination** |  |  |
| **Practice Examination (Laboratory, Project etc.)** |  |  |
| **Final Examination** | **X** |  |
| **Semester Course Plan** |
| **Week** | **Subjects** |
| **1** | Importance of anesthesia in aquaculture |
| **2** | Fish anatomy and physiology |
| **3** | Fish welfare |
| **4** | Physiologic effects of stress |
| **5** | Anesthetics |
| **6** | Anesthetic agents and properties |
| **7** | Optimal concentration and duration |
| **8** | Induction and recovery |
| **9** | Application techniques of anesthetic agents |
| **10** | Conditions affecting anesthesia |
| **11** | Non-chemical methods |
| **12** | Essential oils with anesthetic properties |
| **13** | Anesthetizing aquatic invertebrates and amphibians |
| **14** | Sedation in fish transportation |