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| **COURSE IDENTIFICATION FORM** |
| **Course Code and Name:** SM 5059 WATER QUALITY CRITERIA IN AQUACULTURE | **Department of :** Fisheries and Aquaculture |
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| **Semester** |

 | **Theoretic Hour** | **Practice Hour** | **Total Hour** | **Credits** | **ECTS** | **Education Language** | **Type: Compulsory Elective** |
| Fall | 1 | 2 | 3 | 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** |  Understanding the importance of water quality in aquaculture, determining and applying the most appropriate water quality characteristics according to species, and understanding its importance in terms of fish health. |
| **Course Goals** |  To have knowledge about water parameters, to apply appropriate water conditions, to understand the importance of water quality in terms of fish welfare and aquaculture operations. |
| **Course Learning Outs and Proficiencie*s*** | Can explain water quality characteristics and parameters, provide optimal water conditions according to species, and carry out aquaculture operations in the best way with the water quality knowledge. |
| **Course Basic and Auxiliary Contexts** | 1. Encyclopedia of Aquaculture (2000), Ed.; Stickney R.R., p.1063, John Wiley & Sons, USA.
2. Aquaculture Principles and Practices (2005), Eds.; Pillay T.V.R. and Kutty M.N., p624, Blackwell Publishing, UK.
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| **Methods of Give a Lecture** | Theoretical and practice |

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| **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** | The importance of water quality in aquaculture |
| **2** | Fish physiology and water relationship |
| **3** | Water parameters |
| **4** | Water temperature |
| **5** | Dissolved oxygen |
| **6** | pH |
| **7** | Carbon dioxide |
| **8** | Salinity |
| **9** | Conductivity |
| **10** | Nitrite, nitrate, ammonia and ammonium |
| **11** | Effect of aquaculture activities on water quality |
| **12** | Water quality in recirculated systems |
| **13** | Water quality in aquaponic systems |
| **14** | Treatment of effluents |