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| **COURSE IDENTIFICATION FORM** |
| **Course Code and Name:** SM 5087 PHOTOPERIODIC APPLICATIONS IN TROUT CULTURE | **Department of :** Fisheries and Aquaculture |
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| **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** |  Understanding of the photoperiodic application techniques in trouts and comprehension of its importance in terms of aquaculture. |
| **Course Goals** |  Ability to understand the effects of photoperiodic applications on trout reproduction physiology and comprehend the importance of photoperiod in terms of aquaculture. |
| **Course Learning Outs and Proficiencie*s*** | To be able to describe and explain the importance of photoperiodic techniques, apply in trout culture and expand the culture season. |
| **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** | Importance of photoperiod in trout culture |
| **2** | Fish physiology |
| **3** | Photo-neuroendocrine system in fish |
| **4** | Effect of environmental factors on fish physiology |
| **5** | Structure of the pineal gland, melatonin hormone and its secretion |
| **6** | Melatonin and reproduction |
| **7** | Photoperiodic manipulations |
| **8** | Effect of photoperiod on reproduction |
| **9** | Egg quality |
| **10** | Effect of photoperiod on growth |
| **11** | Effect of photoperiod on fish health |
| **12** | Effect of photoperiod on osmoregulation |
| **13** | Photoperiodic techniques applied in trout culture-I |
| **14** | Photoperiodic techniques applied in trout culture-II |