**COURSE IDENTIFICATION FORM**

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| Course Unit Title and Code: SM-534 Net Technology in Fishery | Programme Title: Fisheries Post Graduate |
| Semester | The Methods of Education (ECTS) |  |
| Theoretical | Practice | Lab. | Project Work | Other | Total | ECTS |
|  | 2 | 2 | - |  |  |  | 6 |
| Languish of Course Unit  | Turkish |
| Type of Course Unit (Compulsory/Elective) | Elective |
| Preconditions | None |
| **Name of Lecturer** | Prof. Dr. Fahrettin YÜKSEL |
| Class | Post Graduate |
| Objectives of Course Unit | The overall goal of this course is to provide theoretical knowledge and practical training in fishing gear design and construction techniques. The following studies for the fishing gear design and construction technique should be emphasized; a) Fishing technology, b) The basic materials of fishery, c) Theoretical fundamentals of fishing gear through mathematics, mechanics and physics. So as to implement the items mentioned above the following study course will be given as design and construction of fishing gear, operation of fishing gear, fish behaviour toward fishing gear and fishing gear technology and maintenance of fishing gear, respectively. |
| **Teaching Techniques**  | Lecture, question and answer, discussion, brain storming, individual work |
| **Course Unit Contents** | In these course main topics are; theory of fishing gear and fishing system, netting geometry and characteristics of fishing gear, internal and external forces acting on fishing gear, determination of netting parameters, analysis of the motion of fishing gear, fishing gear design and model test of fishing gear. |
| Recommended or Required Reading | Tokaç, A., (2010). Ağ Yapım ve Donam Tekniği – Balıkçılık II Ege Üniversitesi Yayınları, Su Ürünleri Fakültesi Yayın No: 80, Ders Kitapları Dizini No: 40, Ege Üniversitesi Basımevi Müdürlüğü Fridman, A.L (1986). Calculations for fishing gear designs, FAO Fishing Manuals, Fishing News Book |
| Learning Outcomes | 1. Determination of netting parameters.
2. Analysis of the motion of fishing gear.
3. To be able fishing gear design.
4. Apply the model test of fishing gear.
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| Weekly Detailed Course Contents | 1. Introduction of Fishing Gear and Fishing Systems
2. Theoretical Representation of Fishing Gear and Fishing Systems
3. Structural material: special dependence of the extensibility of the net, twine and rope for the external load, wear of net, strength of net, knots
4. Estimation of netting twine thickness, length, netting weight, tenacity of twine, and hanging ratios
5. Determination of shape: various methods of calculating elastic twine as an element of fishing gear, net shell subjected to internal forces
6. The properties of net, geometrical form of the net, static equation for an arbitrary net surface
7. Calculations of external loads acting on fishing gear: hydrodynamic resistance of net, rope and various parts of the rigging, buoyancy of net, Reynold’s number
8. Mid-Term exam
9. Technical calculation of rigging, acting loads and shapes of the net gear and various movable gears
10. Calculation for tailoring nets (taper cuts)
11. General principles of designing fishing gear, the objectives and stages of fishing gear design, calculating auxiliary components for rigging fishing gear, preparing drawings and spesifications
12. Model tests of fishing gear, principles of model testing, installations for model tests, similarity rules in the construction and testing of fishing gear models and practical aspects of model testing procedures
13. Project Presentations
14. Project Presentations
15. Final Exam
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| The contribution to Career Training of Course Unit | Mathematic and Basic Science | Vocational Education | General Education |
|  |  | 6 |  |

### RELATİONSHIPS BETWEEN LEARNING OUTCOMES OF COURS UNIT AND PROGRAMME OUTCOMES OF FİSHERİES ENGİNNER

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|  | PROGRAMME OUTCOMES OF FİSHERİES ENGİNNER | **Contribution Level**1 Low2: Medium 3: High |
| 1 | Deepens and improves the information based on university education up to expertise level in Fishing and Seafood Processing Technology.  | 2 |
| 2 | Collects, assesses and publishes data related to their expertise area, cares public, scientific, cultural and ethical values during data collection. | 2 |
| 3 | Solves problems by using problem-solving and suitable methods, establishes cause and effect relationships in the process in his/her expertise. | 3 |
| 4 | Develops a positive attitude towards lifelong learning.  | 0 |
| 5 | Ability for independent study in their area of expertise. | 3 |
| 6 | Obtaining and using literature in their area of expertise. | 0 |
| 7 | Written, verbal and visual convey of their studies and developments in their area of expertise. | 1 |
| 8 | Comprehends interaction of expertise area in relation to interdisciplinary relationships.  | 2 |

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