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| **COURSE IDENTIFICATION FORM** |
| **Course Code and Name:** **Fish Population Dynamics** | **Department of :** **Fisheries Faculty Master with Thesis** |
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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** | Associate Professor Ebru İfakat ÖZCAN | **Mail :**  ebruozer@munzur.edu.tr**Web :** |
| **Course Assistant** |  | **Mail :****Web :** |
| **Groups / Classes** | Master |  |
| **Course Aim** |  Population dynamics and importance, characteristics of fish populations, fluctuations in fish stocks, fish marking, growth-length composition, age composition, survival rate, mortality and total mortality estimation methods, hunting mortality estimation methods, natural mortality estimation methods, population size It is aimed to give estimation methods. The aim of this course is to get to know fish populations and unit stock, to learn the environmental conditions that indirectly affect the stock, and to obtain basic information about fish stocks living in specific environmental conditions in order to express biological changes in stock with mathematical models.• It is aimed to teach fish population dynamics theory and practice courses to graduate students who will take this course, which is planned to be opened. |
| **Course Goals** | Defines population and unit stock in all aspects.• Defines all aspects of the fresh water and marine fishing grounds in the world and the fishing areas of the Mediterranean waters system.• List the biotic and abiotic factors that indirectly affect any fish stock.• Explain the breeding season in fish stocks.• Determine the first sexual maturity height / age in fish stocks.• Can calculate growth parameters in fish stocks.• Calculate measurement parameters of fish stocks.• Can estimate the stock size. |
| **Course Learning Outs and Proficiencie*s*** | Population and unit stock concepts, definition of unit stock, qualitative data used in stock determination,• Materials needed in population dynamics studies and material sampling, reproduction and generation of new generations,• Life span of a fish and fishing, fishing theory,• Models used in fishing, the change of fishing over time,• Optimum fishing theory, nets used by fishing fleet, total power, total catch and models, overfishing theory,• Growth and selectivity, deaths, yield per stock (YRP) and application to fish stocks |
| **Course Basic and Auxiliary Contexts** | * http://fbeeski.cu.edu.tr/ders\_detay.aspx?ders\_id=34389
* https://akts.sdu.edu.tr/Public/EctsCourseDetails.aspx?DersNo=0&BolumNo=
* -Avşar, D., 2005: Balıkçılık Biyolojisi ve Populasyon Dinamiği, Adana Nobel Kitabevi, Adana, 332s.
* -Erkoyuncu, İ., 1995: Balıkçılık Biyolojisi ve Populasyon Dinamiği. Ondokuz Mayıs Üniversitesi Yayınları Yayın No: 95. 265s.
* -Kara, Ö. F., 1992. Balıkçılık Biyolojisi ve Populasyon Dinamiği. Ege Üniversitesi Su Ürünleri Yüksekokulu Kitaplar Serisi No: 27. Ege Üniversitesi Basımevi Bornova-İzmir. 168s.
 |
| **Methods of Give a Lecture** | Lecture / presentation, question and answer, observation  |

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| **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** | •Fish Populations and World Fishing Areas |
| **2** | • Annual Fish Production of the World and Fishing Fields in the Mediterranean |
| **3** | •Unit Stock, Features and Balance Status |
| **4** | • Abiotic Factors That Indirectly Affect the Balance in Stocks |
| **5** | • Biotic Factors and Fluctuations Indirectly Affecting the Balance in Stocks |
| **6** | • Monitoring of Stocks, Increase in Stocks-Reproduction |
| **7** | • New Individual Participation in Stock |
| **8** | • Growth in Stocks |
| **9** | • Indirect Methods Used in Age Determination |
| **10** | • Growth Constants in Fish Length and Weight |
| **11** | • Decrease in Stocks |
| **12** | • Separation of Total Death Rate into Its Components |
| **13** | • Network Selectivity |
| **14** | • Estimation of Stock Size |