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| **COURSE IDENTIFICATION FORM** |
| **Course Code and Name:****Cold Chain Applications and Preservation** | **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 | 6 | Turkish | Optional |
| **Prerequisite (s)** |  |
| **Instructor** | **Associate Professor.Nermin KARATON KUZGUN** | **Mail : nerminkaraton@hotmail.com****Web :** |
| **Course Assistant** |  | **Mail :****Web :** |
| **Groups / Classes** | Master |  |
| **Course Aim** |  Purpose of the Course It is aimed to teach preservation methods that can be applied at low temperatures to preserve the quality of seafood products from the moment they are caught and harvested until their consumption. |
| **Course Goals** | To recognize the materials and equipment used in the preservation of seafood products. To minimize quality losses in seafood products. |
| **Course Learning Outs and Proficiencie*s*** | * Gaining the ability to understand and use basic knowledge about aquaculture hunting and processing technologies, to evaluate and comment, to express opinions, to find solutions to problems on related issues,
* Being able to engage in R&D activities with scientific and technological developments in its field and use it for the continuity of the business, • Having the ability to prepare projects in the field
* To have hunting awareness, numerical and statistical research skills and thinking ability based on the protection of natural resources that will ensure the sustainability of aquaculture stocks.
* To have the competence to provide consultancy in regional and national hunting, processing and determination of protection and control strategies for aquatic products,
* Ability to use Turkish and at least one foreign language in oral and written communication,
* Having social, scientific and professional ethical values
* Having the ability to scan the necessary literature on the subject, evaluate, interpret and write it down in a comprehensible way,
* Being able to generate ideas on the creation of necessary fisheries policies to increase aquaculture production and their integration into the common fisheries policy,
* To have the ability to think academically, to convey one's knowledge and ideas to others, to produce alternative solutions and to analyze information.
* Having the ability to develop alternative products to increase seafood consumption
* Having knowledge about the safe production and consumption of foods originating from aquaculture.
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| **Course Basic and Auxiliary Contexts** | • Lecture notes on cold chain applications in Aquaculture and literature on this subject. |
| **Methods of Give a Lecture** | Face to face |

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| **Assessment Criteria** |  | **If Available, to Sign (x)** | **General Average Percentage (%) Rate** |
| **1. Quiz** | **X** | **50** |
| **2. Quiz** |  |  |
| **3. Quiz** |  |  |
| **4. Quiz** |  |  |
| **5. Quiz** |  |  |
| **Oral Examination** |  |  |
| **Practice Examination (Laboratory, Project etc.)** |  |  |
| **Final Examination** | **X** | **50** |
| **Semester Course Plan** |
| **Week** | **Subjects** |
| **1** |  **Introduction, cold chain concept**  |
| **2** | **Points to consider in the cold chain**  |
| **3** | **The importance of the cold chain for the seafood industry and the consumer** |
| **4** | **Precaution applied to hunted and harvested seafood**  |
| **5** | **Economic importance of chilled and frozen seafood products**  |
| **6** | **Packaging used**  |
| **7** | **Cooling technology**  |
| **8** | **Freezing techniques**  |
| **9** | **Factors affecting preservation by cooling and freezing** |
| **10** | **Changes in the product during cooling and freezing preservation**  |
| **11** | **Cleaning and disinfection of storage areas**  |
| **12** | **Transportation of chilled and frozen products**  |
| **13** |  **Evaluating the quality of chilled and frozen products** |
| **14** | **General evaluation** |