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| **COURSE IDENTIFICATION FORM** |
| **Course Code and Name:** **SM-5021 Energy Flux in Food Chain** | **Department of :** **Fisheries Post Graduate** |
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| **Semester** |

 | **Theoretic Hour** | **Practice Hour** | **Total Hour** | **Credits** | **ECTS** | **Education Language** | **Type: Compulsory Elective** |
| Fall | 3 | 0 | 3 | 3 | 6 | Turkish | Optional |
| **Prerequisite (s)** | Prof. Dr. Banu KUTLU |
| **Instructor** |  | **Mail :** **Web :** |
| **Course Assistant** |  | **Mail :****Web :** |
| **Groups / Classes** |  |  |
| **Course Aim** |  The aims of this lecture is to explain energy flux through the food web and the processes included  |
| **Course Goals** | * Energy flux in marine environment , Pelagic food chain , autotrophic processes , algal pigment systems , protozooplankton and microbial cycle , carbon fluxes , productivity of herbivores , feeding behaviors of mesozooplankton , grazing , metabolism and energy budget , carnivor zooplankton and predation , calculation of production
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| **Course Learning Outs and Proficiencie*s*** | * Energy flux in marine environment.
* Pelagic food chain, autotrophic processes.
* Algal pigment systems, protozooplankton and microbial cycle
* Mesozooplankton, grazing, metabolism and energy budget.

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| **Course Basic and Auxiliary Contexts** | Koning, Ross E. 1994. Energy in Ecosystems. Plant Physiology Information Website. http://plantphys.info/principles/pyramid.html. (11-19-2003).J.H.Steele,Marine Food Chains.,Lubrecht&Cramer Ltd,1973, ISBN:3874290476.T.R.Parsons, M.Takahashı, B.Hargrave, Biological Oceanographic Processes,1977, PergamonPressOxford, 332p.ISBN:0-08-021502-5Hardcover, 0-08-021501-7flexicover |
| **Methods of Give a Lecture** | Face to Face,Lecture, question and answer, discussion, brain storming, individual work |

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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** | What is the food chain? |
| **2** | Energy flux in marine environment |
| **3** | Algal pigment systems |
| **4** | Protozooplankton |
| **5** | Microbial cycle |
| **6** | Carbon fluxes |
| **7** | Carbon fluxes |
| **8** | Mid-Term exam |
| **9** | Productivity of herbivores |
| **10** | Feeding behaviors of mesozooplankton |
| **11** | Grazing, metabolism and energy budget |
| **12** | Carnivor zooplankton and predation |
| **13** | Calculation of production |
| **14** | Final Exam |