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| **COURSE IDENTIFICATION FORM** |
| **Course Code and Name: Research Methods for Marine Planktonic Protists** | **Department of :** |
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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)** |  |
| **Instructor** | Prof. Dr. Banu KUTLU | **Mail :** **Web :** |
| **Course Assistant** |  | **Mail :****Web :** |
| **Groups / Classes** |  |  |
| **Course Aim** | The aim of this lecture is to teach research methods relating with marine one-celled organisms. |
| **Course Goals** | * Sampling techniques, fixation and types of marine planktonic cells, preparation methods used in the laboratory, use of phase contrast microscopy, cell counting, counting chambers and cell measurements, cell volume calculation and biomass, chl-a determination methods will be given.
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| **Course Learning Outs and Proficiencie*s*** | * Denizel planktonik bir hücrelileri örnekleme teknikleri
* Fiksasyon ve tipleri.
* Hücre sayımı, sayma kamaraları ve hücre ölçümleri.
* Laboratuarda kullanılan preparasyonmetodları
 |
| **Course Basic and Auxiliary Contexts** | * Koray, T.,2002. Denizel fitoplankton. Ege Üniversitesi Basımevi, Bornova, İzmir. 228 sayfa. Yardımcı Kitaplar: UNESCO (1978): Phytoplankton Manual. 337 p.
 |
| **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** | **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** | Historical background of the planktonic one-celled organisms researches. |
| **2** | Description of the marine one-celled organisms |
| **3** | The equipment for sampling of planktonic cells. |
| **4** | Preserving and fixation oft he sampling. |
| **5** | Investigations of the samples with microscope on wet preparations. |
| **6** | Intermediate |
| **7** | Staining of the cells |
| **8** | Cleaning with acidication of the samples. |
| **9** | Cell countings and counting chambers. |
| **10** | Calculating the volume of the cell and converting in to the carbon values |
| **11** | Chl-a determination in photosynthetic cells. |
| **12** | Project presentation. |
| **13** | Project presentation. |
| **14** | Final exam. |