



**MARMARA UNIVERSITY  
FACULTY OF ENGINEERING  
ENVIRONMENTAL ENGINEERING DEPARTMENT**

**ENVE 497/498 ENGINEERING PROJECT  
PROPOSAL FORM  
FALL 2017**

**Instructor:** Elif Soyer

**Project Title:** 'Ion Exchange-Membrane' Integrated Processes for Water Treatment

**Proposal No.:** *ESoyler\_2017*

**Number of Students:** 3

**Requirements (from students):** Students will be required to conduct experiments, analyze the data and present their work once every two weeks. An extended summary of the interpretations and conclusions in a scientific paper format is expected at the end of the study.

**Scope of the Project:**

The performances of ion exchange and membrane processes (microfiltration and ultrafiltration) will be determined experimentally by planning and conducting integrated tests.

**Hardware/Software/Lab/Equipment Requirements:**

Membrane filtration system, ion exchange column, shaker, ion selective probe

**Development Plan:**

- Gathering information about the procedures and methods will be used in this project.
- Choosing and collecting appropriate glassware, chemicals, and equipment.
- Conducting experiments within the scope of experimental matrix
- Interpretation of the results