



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

**ENVE 497/498 ENGINEERING PROJECT
PROPOSAL FORM
FALL 2016**

Instructor: Elif Soyer

Project Title: Removal and Recovery of Ammonia from Water & Wastewaters

Proposal No.: 2016_1

Number of Students: 3-4

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:

Removal and recovery of ammonia from synthetic waters will be investigated by conducting experiments. Recovery of ammonium ion in acid solutions to be used as liquid fertilizers is the main aim of this study. Operational parameters were decided to be as total ammonia nitrogen concentration, pH, rate of air during stripping and temperature.

Hardware/Software/Lab/Equipment Requirements:

Solvent hood, heater, dry air, glassware, ammonia selective electrode are needed.

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