



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

**ENVE 4197/4198 ENGINEERING PROJECT
PROPOSAL FORM
SPRING 2020-2021**

Instructor : Doç. Dr. Neslihan Semerci

Project Title : Surface-complexation modelling for describing adsorption of phosphate and ammonia on magnetite surface

Proposal No. : NSemerci_1

Number of Students : 4

Requirements (from students) :-

Scope of the Project : Exploring the surface complexation reactions and mechanisms involved in phosphorus and ammonia adsorption on bare and composite magnetite surfaces by using Visual MINTEQ and other related programs.

Hardware/Software/Lab/Equipment Requirements :

Visual MINTEQ program, MINFIT, MS Excel

Development Plan :

- Literature Survey for the surface complexation mechanisms for adsorption of ions on oxide surfaces
- Use of Visual MINTEQ program to model adsorption of phosphate and ammonia on magnetite surface