MARMARA UNIVERSITY
FACULTY OF ENGINEERING
ENVIRONMENTAL ENGINEERING DEPARTMENT

ENVE 4197/4198 ENGINEERING PROJECT PROPOSAL FORM FALL 2024-2025

Instructor: Assoc. Prof. Deniz Akgül

Project Title: Effect of granular activated carbon on anammox reactor in the presence of organic matter

Proposal No.: 1

Number of Students: 2-4 students

Requirements (from students): This project includes the operation of a lab-scale biological system; therefore, the students are supposed to have completed **ENVE 3002** and **ENVE 3003** courses successfully.

Scope of the Project: The inclusion of organic matter is thought to have a negative impact on the anammox process, even though ammonia-containing wastewater is almost always include organic matter. This study aims to assess the effects of granular activated carbon on anammox granules in the presence of organic matter.

A 2209-A TUBITAK project will be written by the end of the first term.

Hardware/Software/Lab/Equipment Requirements: An ongoing lab scale Anammox reactor will be operated.
List of equipment: Spectrophotometer, pH meter, oxygen meter, analytical balance, 105°C oven, 550°C muffle furnace, magnetic stirrer, incubator, peristaltic pumps, vacuum pumps, COD thermoreactor.

Development Plan:

- Development of work plan
- Preparation of TUBITAK project
- Lab works