**MARMARA UNIVERSITY**

**FACULTY OF ENGINEERING**

**ENVIRONMENTAL ENGINEERING DEPARTMENT**

**ENVE 4197/4198 ENGINEERING PROJECT**

**PROPOSAL FORM**

**FALL 2025-2026**

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| **Instructor : Prof. Dr. Neslihan Semerci**  **Project Title :** Evaluation of the removal performance of magnetically supported metal organic framework (MOF) structures for organic micropollutants in wastewater  **Proposal No. : 1**  **Number of Students :** 3 |
| **Scope of the Project:** The project will investigate the removal of organic micropollutants from wastewater and sludge samples using the adsorption method with two types of composite metal organic frames (MOF). Batch adsorption experiments will be carried out on synthetic wastewater samples with the target organic micropollutant. In the final step, regeneration of the composite materials will be investigated. |
| **Hardware/Software/Lab/Equipment Requirements :**   * Spectrophotometer * GC-MS * Shaker * pH meter |
| **Development Plan:**   * **Production and characterization of MOF** * **Batch adsorption experiments** * **Desorption/Regeneration Experiments** |