



FACULTY OF GRADUATE STUDIES

**Synthesis and Characterization of Nano-Iron Based
Materials and Their Application for the Removal of
Anionic and Cationic Dyes**

تحضير وتشخيص مواد مستندة للحديد بمقياس النانو واستخدامها
لإزالة الأصباغ السالبة والموجبة

This Thesis was submitted in partial fulfillment of the requirements
for the

Master's Degree in Applied Chemistry

From the Faculty of Graduate Studies at Birzeit University, Palestine

By: Muath Nairat

Supervised by: Prof. Talal Shahwan