



**Jordan University of Science and Technology**  
**Faculty of Engineering**  
**Chemical Engineering Department**

CHE799A Master Thesis - JNQF Level: 9

First Semester 2022-2023

**Course Catalog**

9 Credit Hours. Conducting original research in the field of chemical engineering under the supervision of a faculty member from the university. Submitting a thesis in accordance to the proposal submitted to the faculty of graduate studies. Passing the thesis defence. Fulfilling the faculty of graduate studies master thesis regulations.

**Teaching Method:** On Campus

**Instructor**

Name	<b>Prof. Mohammed Osama Azzam</b>
Office Location	CH2 L2
Office Hours	
Email	azzam@just.edu.jo

**Class Schedule & Room**

Section 1:  
Lecture Time: U : -  
Room: U

<b>Mapping of Course Outcomes to Program Outcomes and NQF Outcomes</b>	<b>Course Outcome Weight (Out of 100%)</b>	<b>Assessment method</b>
Demonstrate deep knowledge and advanced understanding of current research and technological advancements in a specialised area within chemical engineering [1L9K1]	10%	
Assess existing literature, theories, and methodologies within chemical engineering, identifying research gaps and interdisciplinary connections [1L9K2]	10%	
Develop and apply innovative approaches and strategies to address complex research problems, showcasing an understanding of emerging technologies in the field [1L9K3]	10%	

Generate novel experimental or computational tools and methods to advance research, incorporating high-level technological skills and innovative practices [1L9S1]	10%	
Synthesize knowledge from various areas of chemical engineering and related disciplines to create comprehensive solutions to research challenges [1L9S2]	10%	
Apply specialized analytical, experimental, or computational skills to independently solve complex research questions in chemical engineering [1L9S3]	10%	
Develop adaptive strategies and decision-making frameworks for conducting research in ambiguous or evolving contexts, demonstrating flexibility and innovation [1L9C1]	10%	
Reflect critically on research progress and methodologies, actively identifying areas for improvement and advancing self-directed learning [1L9C2]	10%	
Contribute original findings to the body of knowledge in chemical engineering, disseminating research outcomes to both academic and professional communities [1L9C4]	10%	
Address complex, multidisciplinary research problems with initiative and rigor, demonstrating effective problem-solving and project management skills [1L9C6]	10%	

Relationship to Program Student Outcomes (Out of 100%)						
1	2	3	4	5	6	7

Relationship to NQF Outcomes (Out of 100%)									
L9K1	L9K2	L9K3	L9S1	L9S2	L9C1	L9C2	L9C4	L9S3	L9C6
10	10	10	10	10	10	10	10	10	10

Evaluation	
Assessment Tool	Weight
Thesis	100%

Date Printed: 2024-10-29