



Jordan University of Science and Technology
Faculty of Engineering
Industrial Engineering Department

IE559 Special Topics In Engineering Management - JNQF Level: 7

Second Semester 2024-2025

Course Catalog

3 Credit Hours. Risk assessment and management is the identification, analysis, and prioritization of risks; as well as the coordinated treatment of risk to prevent, minimize, monitor, and control the probability and/or impact of undesirable events and consequences. This course covers the principles and applications of risk assessment and management in the context of engineering management. Students will be prepared to function in a business environment, developing an awareness of the challenges, the tools, and the process of designing and implementing risk assessment and management strategies.

Teaching Method: Electronic Course

Instructor

| | |
|-----------------|-----------------------|
| Name | Dr. ESRAA ABDEL ALL |
| Office Location | - |
| Office Hours | |
| Email | esabdulal@just.edu.jo |

Class Schedule & Room

Section 1:
Lecture Time: Wed : 18:30 - 20:00
Room: متزامن الحضور منصة الكترونية

Tentative List of Topics Covered

| Weeks | Topic | References |
|----------------|--|------------|
| Week 1 | Introduction to risk analysis and management | |
| Weeks 2, 3, 4 | Risk Assessment/ identification | |
| Weeks 5, 6, 7 | Risk assessment/ analysis and evaluation | |
| Weeks 8, 9, 10 | Risk management ,Basic Risk Tools and Techniques | |

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|--------------|--|--|
| Weeks 11, 12 | Application of Risk Tools and Techniques , Risk treatment process and techniques | |
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| Mapping of Course Outcomes to Program Outcomes and NQF Outcomes | Course Outcome Weight (Out of 100%) | Assessment method |
|---|-------------------------------------|----------------------------------|
| Apply both quantitative and qualitative techniques to evaluate identified risks [1SO2] [1L7S1] | 40% | MIDTREM Exam, Final Exam, Quiz 2 |
| Formulate comprehensive risk response and treatment options [1SO4] [1L7S3] | 30% | Activities, Final Exam |
| Utilize established risk assessment frameworks (e.g., ISO 31000, COSO ERM) to systematically identify, classify, and document various risk types [1SO1] [1L7S1] | 30% | MIDTREM Exam, Quiz 1, Final Exam |

| Relationship to Program Student Outcomes (Out of 100%) | | | | | | |
|--|-----|-----|-----|-----|-----|-----|
| SO1 | SO2 | SO3 | SO4 | SO5 | SO6 | SO7 |
| 30 | 40 | | 30 | | | |

| Relationship to NQF Outcomes (Out of 100%) | |
|--|------|
| L7S1 | L7S3 |
| 70 | 30 |

| Evaluation | |
|-----------------|--------|
| Assessment Tool | Weight |
| MIDTREM Exam | 30% |
| Quiz 1 | 10% |
| Activities | 10% |
| Final Exam | 40% |
| Quiz 2 | 10% |

Date Printed: 2025-11-03