



Yarmouk University

**Hijjawi Faculty for
Engineering Technology**

Industrial Engineering Department

Bachelor of Science in Industrial Engineering

Program Overview

Brief introduction

Established in 2013, the Industrial Engineering Department offers a bachelor's degree in industrial engineering. The program features modern curricula aligned with technological advancements, emphasizing practical education through specialized laboratories. The department admits approximately 60 students annually and boasts faculty members conducting advanced research in fields like renewable energy, data analysis, quality and reliability control, modeling and optimization, and supply chain management. Their research is published in prestigious international journals and conferences.

Academic and practical goals

- **Preparing Qualified Professionals:** Graduating engineers equipped with the knowledge and skills needed for success in local and international markets.
- **Promoting Innovation:** Encouraging scientific research and the development of innovative technical solutions.
- **Enhancing Leadership Skills:** Empowering graduates to work effectively within interdisciplinary teams with strong communication and leadership skills.
- **Supporting Lifelong Learning:** Providing students with a solid foundation for continuous education and professional development.
- **Fostering Social Responsibility:** Graduating engineers committed to ethical values and community service.
- **Keeping Up with Technological Advancements:** Training students in the latest technologies and methodologies to meet market demands.

Importance of the program and its role in the job market

The Industrial Engineering program aims to prepare engineers with comprehensive practical skills, the ability to pursue lifelong learning or innovative research, and the aptitude to work effectively in interdisciplinary environments with strong communication and teamwork capabilities.

Career Opportunities

Available job opportunities

- **Operations Research Engineer:** Solve technical problems and optimize processes using analytical methods.
- **Supply Chain Management Engineer:** Improve material and product flow within supply chains.
- **Production Systems Engineer:** Design and manage manufacturing processes to increase productivity and reduce waste.
- **Quality Control and Assurance Engineer:** Develop and implement strategies to ensure product and service quality.
- **Project Manager:** Oversee project execution, ensuring completion on time, within budget, and according to quality standards.
- **Engineering Economist:** Analyze costs and make financial decisions to optimize institutional performance.

Sectors where graduates can work

- **Manufacturing and Production:** Automotive, electronics, and industrial equipment factories.
- **Transportation and Logistics:** Companies in transportation, warehousing, and supply chain management.
- **Finance and Economics:** Economic and engineering data analysis for banks and financial institutions.
- **Technology:** Developing software for data analysis and operations management.
- **Services:** Hospitals, airlines, and hotels to enhance services and efficiency.
- **Government Sector:** Ministries of Industry, Planning, and Energy to improve performance and services.

Learning Environment and Facilities

Laboratories and facilities

- **Measurements Laboratory:**

Trains students on using precision engineering measurement tools like Vernier calipers and micrometers, with a focus on quality analysis and applying global standards like ISO.

- **Materials Engineering Laboratory:**

Introduces standard tests to determine material properties, including tension, hardness, fatigue, and impact tests, with an emphasis on heat treatment techniques.

- **Human Factors Engineering Laboratory:**

Analyzes human-system interaction to improve performance and ensure safety. Applications include designing industrial and medical systems and aviation.

- **Manufacturing Laboratory:**

Provides cutting-edge manufacturing technologies, including laser and plasma CNC machines and 3D printers. Supports research and entrepreneurial projects with a focus on prototyping and innovation.

Overview of the Study Plan

The program requires a minimum of 167 credit hours, distributed as follows:

Requirement	Credit Hours	Mandatory	Elective
University Courses	27	15	12
Faculty Courses	30	30	-
Department Courses	110	101	9
Total	167		

Accreditation and Quality

Academic accreditations

The program is accredited by the Accreditation Board for Engineering and Technology (ABET).





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