

**Industrial Management –Production and Operation**  
**Department of Operation Management and Information Technology, Faculty of**  
**Management, Kharazmi University**

<b>Program Title (major)</b>	<b>Industrial Management – Production and Operations Management</b>
<b>Level of studies</b>	Master of Science
<b>Medium of Instruction of Program</b>	Farsi - English
<b>Duration of program</b>	4 Semester
<b>Intake / Academic Session</b>	Fall (September)
<b>Number of Credits</b>	32 credits during 4 Semester
<b>Coursework / Research (Mode of studies)</b>	This program is delivering by coursework/research mixed mode. Students must confirm their research supervisor and research topic after first semester or before end of third academic semester. Students will register and submit their research proposal in the fourth semester and their viva will be conducted after 6 months of their submission.
<b>Main / General Courses</b>	Advanced operations research, advanced production and operations management, statistical analysis, advanced strategic management, advanced information systems management, application of decision theory in management, business process reengineering, advanced human resource management
<b>Specialized Courses</b>	Enterprise resource planning, technology transfer management, production and inventory planning and control, seminar in production and operations management
<b>Program description / objective</b>	<p>The two-year MSc program in Industrial Management – Production and Operations Management entails completing 14 course modules (core and optional) and writing a 35000-45000 words thesis. During this MSc program, the students will learn advanced operations management principles and concepts, and explore how they can be applied across various organizational functions including information systems, finance, marketing and sales, human resource management, and research and development. They will develop expertise in the use of different production and inventory planning, process management and supply chain management tools and techniques for the analysis and improvement of operations in a wide range of manufacturing and services industries.</p> <p>The students will put into practice the concepts and techniques of</p>

	<p>operations management through case studies, coursework projects and their MSc thesis. They are expected to employ operations research techniques such as optimization, simulation and Bayesian network to model the operations management problems, where these models are normally solved using suitable software. Analyzing the model solutions would provide business insights to the operations managers in improving the operations and therefore helping the organization gain competitive advantage.</p> <p>There are a variety of job opportunities for the graduates, including operations manager, operations analyst, supply chain manager, production planner and operations engineer.</p>
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## General plan of credits distribution in semesters

(Last Update June, 2022)

- General Subjects for all Programs (10 Credits)
- Main Subjects (10 Credits)
- Specialized Subject (8 Credits)
- Thesis (4 Credits)

MSc. IM-Production & Operation & Pardis (1st Sem)			
	Subject	Credit	Description
1	Advanced Organization and Management Theory	2	General
2	Statistical Analysis	2	General
3	Advanced Operations Research	2	Main
4	Business Ethics and Rules	2	General
5	Advanced Production and Operations Management	2	Main

MSc. IM-Production & Operation & Pardis (2 <sup>nd</sup> Sem)			
	Subject	Credit	Description
1	Advanced MIS	3	Main
2	BPR	3	Main
3	Application of Decision Theory in Management	3	Main
4	Advanced Human Resource Management	3	General
5	Technology Transfer Management	3	Specialized

MSc. IM-Production & Operation & Pardis (3 <sup>rd</sup> Sem)			
	Subject	Credit	Description
1	Advanced Strategic Management	3	General
2	Production and Inventory Planning and Control	3	Specialized
3	Enterprise Resource Planning	3	Specialized
4	Seminar in Production and Operations Management	3	Specialized

MSc. IM-Production & Operation & Pardis (4 <sup>th</sup> Sem)			
	Subject	Credit	Description
1	Thesis	4	Research Oriented