

The Department of Industrial Engineering

MSc Program

Types of Degrees and Tracks

The Department offers three types of MSc degrees:

1. Academic MSc in Industrial Engineering

Requirements for this degree include:

Research Track

Completing courses for a total of 24 credit points in accordance with the curriculum

Writing a final thesis for a total of 12 credit points, in compliance with the Faculty's Regulations for Advanced Degrees (total of 36 credit points)

Participation in 14 departmental seminars during MSc studies

Final Project Track

Completing courses for a total of 36 credit points in accordance with the curriculum

A project for 3 credit points (total of 39 credit points)

Participation in 8 departmental seminars during MSc studies

2. Academic MSc in Industrial Engineering & Management

Requirements for this degree include:

Research Track in Industrial Engineering and Management

Completing courses for 27 credit points: 18 credits in Engineering and 9 credits in Management, in accordance with the curriculum

Writing a final thesis for a total of 12 credit points, in compliance with the Faculty's Regulations for Advanced Degrees (total of 39 credit points)

Participation in 14 departmental seminars during MSc studies

Final Project Track in Industrial Engineering and Management

Completing courses for a total of 38 credit points: 26 credits in Engineering and 12 credits in Management in accordance with the curriculum

A project for 3 credit points (total of 41 credit points)

Participation in departmental seminars during MSc studies

3. Combined academic degree: MSc in Industrial Engineering & MBA from the School of Management

Requirements for MSc in Industrial Engineering

Completing courses for a total of 18 credit points from the Industrial Engineering MSc program

For exemption from 6 credit points in the Management cluster students must complete the combined degree. Students who do not meet the full requirements in both programs will be required to take more courses as needed to receive an MSc degree in Industrial Engineering or Industrial Engineering & Management, as specified above.

Writing a final thesis for a total of 12 credit points, in compliance with the Faculty's Regulations for Advanced Degrees

Participation in 14 departmental seminars during MSc studies

Requirements for MBA

The MBA program includes courses totaling 22 semester units, in accordance with the MBA curriculum.

For exemption from 3 courses (6 semester units) students must complete both programs in the combined degree.

Stages of the study program¹

In general, MSc studies at the Faculty of Engineering comprise two stages:

First - Accumulative Studies

Second – Studies in the Regular Student Status

Accumulative Stage

This stage is intended for students who work while they study. It and must be completed within a maximum of three academic years, during which students must take all mandatory departmental courses, and accumulate a minimum of 12 and a maximum of 18 credit points.

Admission to Accumulative Studies is considered admission to the MSc program in every respect.

Students opting for the Industrial Engineering & Management program must inform the Department of their choice during the first semester of Accumulative Studies.

Regular Student Status

Students completing the Accumulative Studies stage are recognized as Regular Students – in either the Research or Final Project Track.

Research Track

Admission to the Research Track necessitates the guidance of a permanent supervisor throughout the student's research for the thesis.

Students studying on scholarships attend the Fulltime program. They are admitted directly to the Regular Student Status, only in the Research Track. They must find a permanent supervisor no later than the end of their first semester of studies.

Specializations

The Department offers three areas of specialization, reflecting the current interests, courses and knowledge of its faculty members:

- Operations & Logistics
- Business Analytics
- Human Aspects of Systems

The curriculum allows but does not require specialization.

To specialize, a student must take courses in accordance with the relevant requirements and write a thesis or final project in the field of specialization.

Admission requirements²

To apply for admission to the Industrial Engineering MSc program a candidate must meet all requirements specified in the Faculty Manual, as well as:

A BSc in Engineering or the Exact Sciences from an institution of higher education recognized by the Council for Higher Education

A minimum weighted average grade of 80 in undergraduate studies

Admission to the combined MSc & MBA program depends on openings available in the program. Prerequisites include:

Fulltime studies

Completion of BSc in Industrial Engineering & Management in top 20% of the class

Minimum average grade of 90

Meeting the admissions requirements of the School of Management, based on average grade and GMAT results.

The minimum required for admission may vary from one year to another, and depends on the level of candidates and the Department's capacity in that particular year.

Admission depends on the candidate's knowledge base, background of undergraduate studies, average grade in BSc studies, and relative placement in his/her undergraduate class.

Candidates must submit their grade records and documentation of their undergraduate placement.

A candidate whose grade average is lower than the required minimum, but not lower than 75, may, in exceptional cases, be admitted to the MSc program in a provisional status, depending on the Department's capacity in that particular year, and for a maximum period of one year. Students in this status must complete the two mandatory departmental courses with a minimum average grade of 70.

Supplementary studies

MSc candidates who require supplementary studies will be admitted to a supplementary studies program.

Based on the criteria of knowledge base and undergraduate background, some candidates who wish to study in the Department will be required to complete several undergraduate courses. Admission will be in a special status – supplementary studies.

The supplementary program will be determined by the Head of the Departmental Committee for MSc Studies, based on the candidate's knowledge base and undergraduate background. For more information please see the MSc Regulations.

Prerequisites for continuing to MSc studies: completing each supplementary course with a minimum grade of 75, and all courses with an average grade of 80. In addition, students must meet any other requirements set by the Faculty.

¹ See Paragraph 3.4 of the MSc Regulations of the Faculty of Engineering

For admission requirements, study stages, requirements at each stage, conditions for continuing to the next year, and conditions for advancement to the Regular Student status, see the new MSc Regulations.

² The obligatory registration and admission requirements, added to the general TAU requirements, are published annually by the Registration Center in the Guide for Candidates.

Courses in the program

The courses in the program are divided into the following categories:

Mandatory courses

Core courses

Elective courses

Elective Management courses

Requirements according to Study Tracks:

Students must choose courses from the above categories according to the following specifications:

Research Track¹

	Industrial Engineering	Industrial Engineering & Management	Combined with MBA
Mandatory	6	6	6
Core	10	10	10
All Cores + Electives	4-8	2	2
Management	0-4	9	-
Total for degree	24	27	18

Final Project Track²

	Industrial Engineering	Industrial Engineering & Management
Mandatory	6	6
Core	12	12
All Cores + Electives	12-18	8
Management	0-6	12
Total for degree	36	38

Key to Course Numbers

0571	0572	0510	0540	0365	0368	1231-1243
Industrial Engineering (BSc)	Industrial Engineering (MSc)	School of Electrical Engineering	School of Mechanical Engineering	Department of Statistics	Computer Science	School of Management

¹ Research Track – For specializations students must choose the core courses from the chosen specialization and complete a **thesis** in this field.

² Final Project Track - For specializations students must choose the core courses from the chosen specialization and complete a **project** in this field.