

TOROS ÜNİVERSİTESİ

Faculty Of Engineering
Industrial Engineering (English)

Course Information

| INTRODUCTION TO INDUSTRIAL ENGINEERING | | | | | |
|--|----------|-------------|----------|-----------------|-------------|
| Code | Semester | Theoretical | Practice | National Credit | ECTS Credit |
| | | Hour / Week | | | |
| INE111 | Fall | 3 | 0 | 3 | 4 |

| | |
|---|--|
| Prerequisites and co-requisites | none |
| Language of instruction | English |
| Type | Required |
| Level of Course | Bachelor's |
| Lecturer | Asst. Prof. Fikri EGE |
| Mode of Delivery | Face to Face |
| Suggested Subject | none |
| Professional practise (internship) | None |
| Objectives of the Course | The aim is to define industrial engineering, describe its place in the business world and give a broad picture of the functional areas with some solution techniques. |
| Contents of the Course | This course provides an introduction to industrial engineering. The history of industrial engineering, function areas of industrial engineering and the operations research systems will be teach to students. |

Learning Outcomes of Course

| # | Learning Outcomes |
|---|--|
| 1 | Student will gain main information about industrial engineering and s/he will be able to apply these information in real life. |
| 2 | Student gains mental power for thinking on manufacturing systems. |
| 3 | Student gains main information on undergraduate lectures and internships. |
| 4 | |

Course Syllabus

| # | Subjects | Teaching Methods and Technics |
|----|---|-------------------------------|
| 1 | Introduction | Synchronous |
| 2 | Nature of Manufacturing & Manufacturing Systems | Synchronous |
| 3 | Supply Chain Management (Inventory Control) | Synchronous |
| 4 | OR: Linear Programming (Formulation) | Synchronous |
| 5 | OR: Linear Programming (Graphical Solution) | Synchronous |
| 6 | Cost Analysis and Engineering Economy | Synchronous |
| 7 | Midterm | Exam |
| 8 | Decision Making | Synchronous |
| 9 | Introduction to Quality | Synchronous |
| 10 | Work Design | Synchronous |
| 11 | Ergonomics & Industrial Safety | Synchronous |
| 12 | Engineering Ethics | Synchronous |

| | | |
|----|-------------------------|-------------|
| 13 | Simulation | Synchronous |
| 14 | Lean Production and 6σ | Synchronous |
| 15 | Revision and Discussion | Synchronous |
| 16 | Final Exam | Exam |

Course Syllabus

| # | Material / Resources | Information About Resources | Reference / Recommended Resources |
|---|--|-----------------------------|-----------------------------------|
| 1 | Introduction to Industrial Engineering, Shtub A., Cohen Y. CRC Press | | |
| 2 | Introduction to Industrial and Systems Engineering, Turner W.C., Mize J.H., Case K.E. Prentice-Hall. | | |

Method of Assessment

| # | Weight | Work Type | Work Title |
|---|--------|---------------|---------------|
| 1 | 40% | Mid-Term Exam | Mid-Term Exam |
| 2 | 60% | Final Exam | Final Exam |

Relationship between Learning Outcomes of Course and Program Outcomes

| # | Learning Outcomes | Program Outcomes | Method of Assessment |
|---|--|------------------|----------------------|
| 1 | Student will gain main information about industrial engineering and s/he will be able to apply these information in real life. | 9 | 1,2 |
| 2 | Student gains mental power for thinking on manufacturing systems. | 9 | 1,2 |
| 3 | Student gains main information on undergraduate lectures and internships. | 9 | 1,2 |
| 4 | | | |

PS. The numbers, which are shown in the column Method of Assessment, presents the methods shown in the previous table, titled as Method of Assessment.

Work Load Details

| # | Type of Work | Quantity | Time (Hour) | Work Load |
|----|---|----------|-------------|-----------|
| 1 | Course Duration | 14 | 3 | 42 |
| 2 | Course Duration Except Class (Preliminary Study, Enhancement) | 14 | 6 | 84 |
| 3 | Presentation and Seminar Preparation | 0 | 0 | 0 |
| 4 | Web Research, Library and Archival Work | 0 | 0 | 0 |
| 5 | Document/Information Listing | 0 | 0 | 0 |
| 6 | Workshop | 0 | 0 | 0 |
| 7 | Preparation for Midterm Exam | 1 | 3 | 3 |
| 8 | Midterm Exam | 1 | 1 | 1 |
| 9 | Quiz | 0 | 0 | 0 |
| 10 | Homework | 0 | 0 | 0 |
| 11 | Midterm Project | 0 | 0 | 0 |
| 12 | Midterm Exercise | 0 | 0 | 0 |
| 13 | Final Project | 0 | 0 | 0 |
| 14 | Final Exercise | 0 | 0 | 0 |
| 15 | Preparation for Final Exam | 1 | 1 | 1 |
| 16 | Final Exam | 1 | 1 | 1 |

