



SAMSUN UNIVERSITY

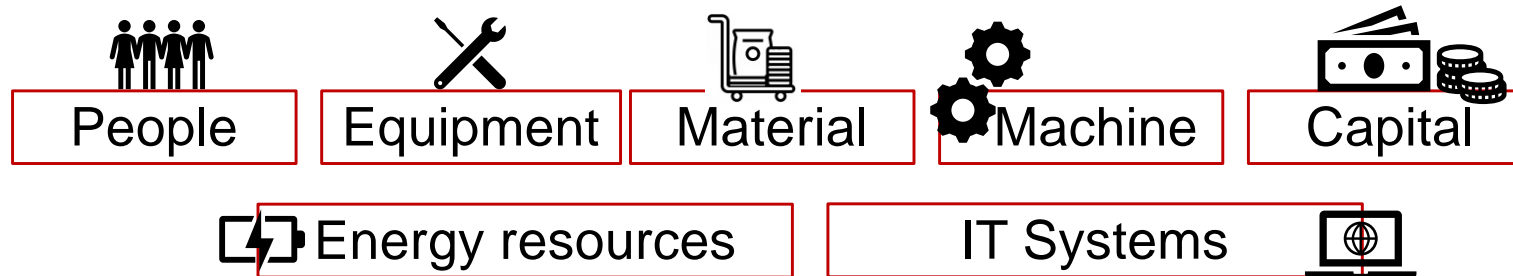
DEPARTMENT OF INDUSTRIAL ENGINEERING

Profession and Department
of Industrial Engineering

Industrial Engineering

Description of the Profession

is a branch of engineering that is interested in the design and the efficient operating of the complex systems that are composed of



It draws on the special knowledge and skills in mathematics, computing, social science, and natural sciences, as well as engineering analysis and design methods, to identify, predict and evaluate the results obtained from these systems.

Industrial Engineering



An industrial engineer

Seeks for and applies

Shortest

Fastest

Cheapest

The most Profitable

The most Efficient

method while working on a system

Industrial Engineering – Job Opportunities

An industrial engineer can be responsible for

- ❑ Purchasing of the required materials
- ❑ Inventory planning for raw materials
- ❑ Production scheduling (which machines?, in which order?, by which workers?)
- ❑ Improvement of production processes (more economical, ergonomically, faster, defect free)
- ❑ Quality control
- ❑ Inventory planning for the final products
- ❑ Sales
- ❑ Logistics

at a **production facility.**

However working scope is not limited with the production facilities.

Industrial Engineering – Job Opportunities

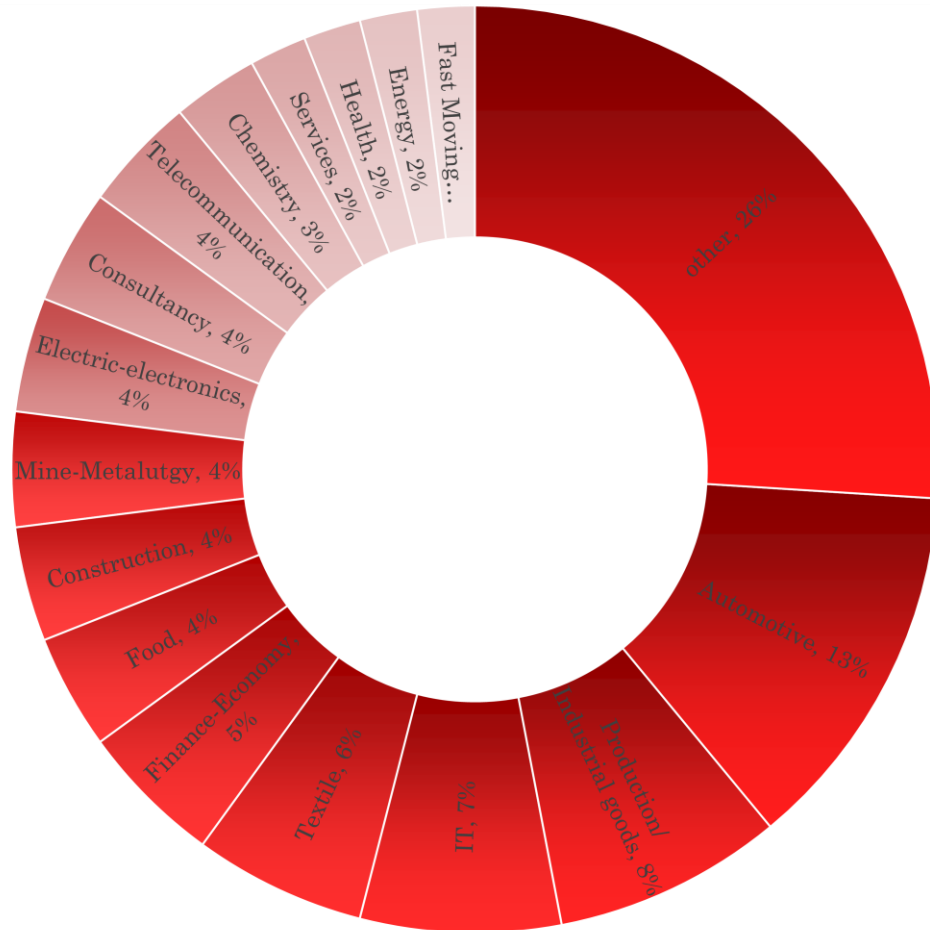
An industrial engineer can work in

- ❑ Logistic companies (Capacity planning and vehicle routing)
- ❑ Retail industry (open/close decisions for branches, inventory planning, logistic decisions)
- ❑ Airports (flight scheduling, crew scheduling and etc.)
- ❑ Hospitals (medicine/equipment supply chain planning, operating room scheduling and etc.)
- ❑ Banks (financial departments, risk analysis)
- ❑ IT industry (job analyst, programmer)
- ❑ Consultancy Firms
- ❑ Government (ministries)

and many other positions and place in **service industry**. Also an industrial engineer can be responsible for organization and management for everywhere s/he works.

Industrial Engineering – Job Opportunities

Industries that industrial engineers work according to the database of Kariyer.net

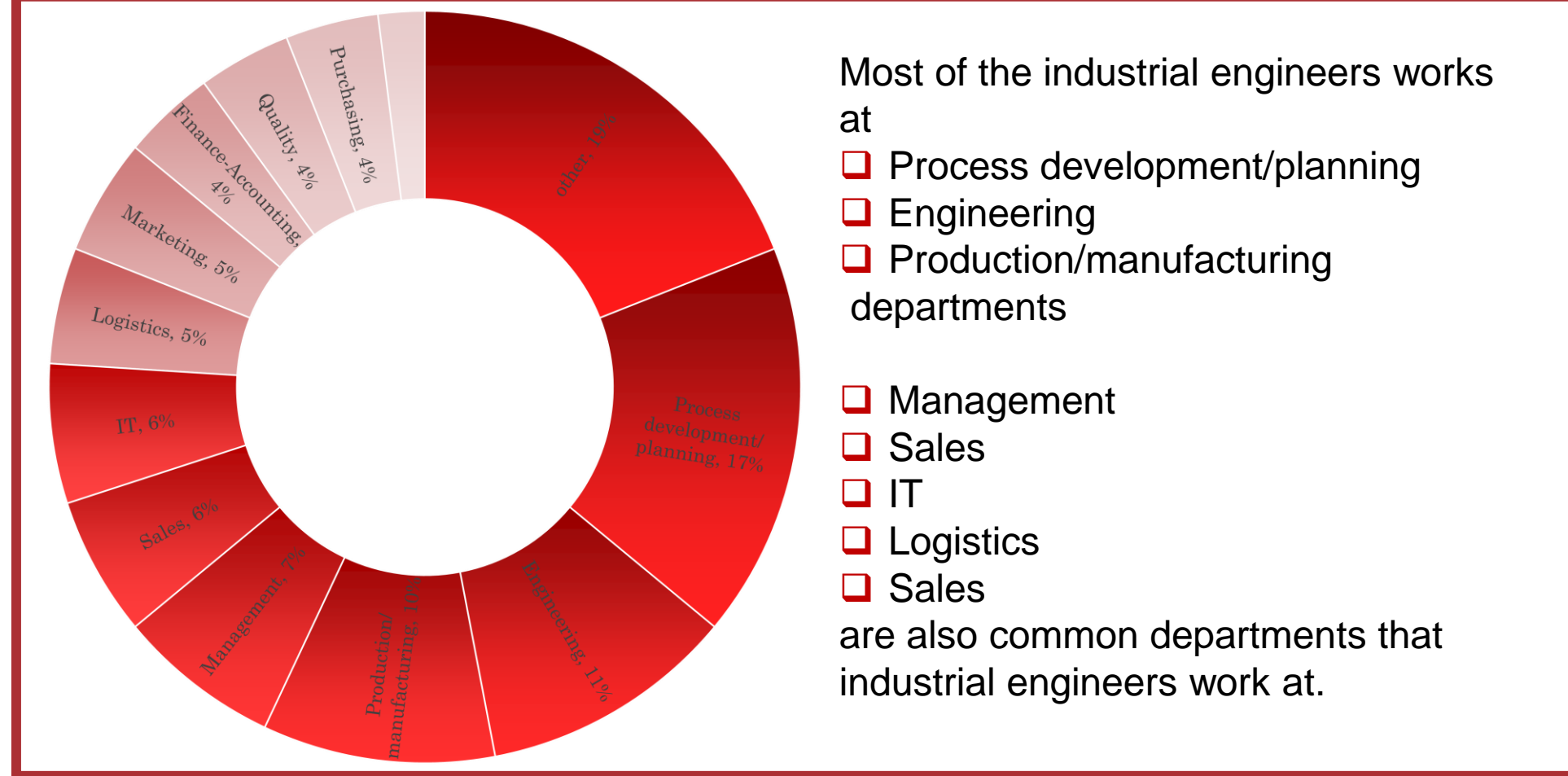


- ❑ Most of the graduates work at automotive industry with **13%**
- ❑ However, it is obviously seen that working fields are highly divergent over several opportunities.

* Endüstri mühendislerinin en son iş bilgisine göre

Industrial Engineering – Job Opportunities

Departments that an industrial engineers work according to tha database of Kariyer.net



Most of the industrial engineers works at

- Process development/planning
- Engineering
- Production/manufacturing departments

- Management
- Sales
- IT
- Logistics
- Sales

are also common departments that industrial engineers work at.

* Endüstri mühendislerinin en son iş bilgisine göre

Industrial Engineering Department



Established: 2019

Department of Industrial Engineering accepted first students at 2021-2022 academic year.



Eğitim Dili: %30 English

30% of the Courses in the curriculum is planned to be offered in English. (with the domination of Industrial Engineering field courses)



Quota: 40 Students

Campus: Balıca

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Department of Industrial Engineering

CAMPUS

- Our department is located at the Engineering Faculty Building in Ballica.



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CAMPUS

- Well-equipped classrooms and laboratories of Engineering Faculty is ready for the use of students.



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ACADEMIC STAFF



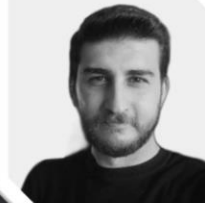
Assoc. Prof. Dr.
Zeynep CEYLAN
PhD:
Marmara University, Industrial Engineering



Assist. Prof. Dr.
Engin BAYTÜRK
PhD:
Istanbul University – Cerrahpaşa
Industrial Engineering



Assist. Prof. Dr.
Derya AKBULUT
PhD:
METU, Industrial Engineering



Assist. Prof. Dr.
Memet Merhad AY
PhD:
Erciyes University
Industrial Engineering



Assist. Prof. Dr.
Aycan PEKPAZAR
PhD:
ITU, Industrial Engineering

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ACADEMIC STAFF -CONT.-



Res. Assist. Dr.
Ebru PEKEL ÖZMEN
PhD:
Istanbul University – Cerrahpaşa
Industrial Engineering



Res. Assist.
Mehmet Samet ÇAKIR
MSc:
Istanbul Technical University
Industrial Engineering (In Progress)

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CURRICULUM

1st Semester

- Turkish I
- Foreign Language I
- Principles of Atatürk and History of Turkish Revolution I
- Mathematics I
- Physics I
- Physics Lab I
- Chemistry
- Introduction to Industrial Engineering **(English)**
- Computer Applications and Introduction to Programming

2nd Semester

- Turkish II
- Foreign Language II
- Principles of Atatürk and History of Turkish Revolution II
- Mathematics II
- Physics II
- Physics Lab II
- Entrepreneurship
- Computer Aided Drawing
- Economics

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CURRICULUM

3rd Semester

- Nature of Science and Critical Thinking
- Linear Algebra
- Probability **(English)**
- Strategic Management **(English)**
- Material Science
- Computer Programming

4rd Semester

- Differential Equations
- Engineering Statistics
- Work Study and Ergonomics **(English)**
- Manufacturing Methods
- Operations Research I **(English)**
- **Summer Training I**

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CURRICULUM

5th Semester

- Operations Research II **(English)**
- Numeric Methods
- Facilities Design and Location
(English)
- Production Planning and Control I
(English)
- Cost Analysis
- Technical Elective
- Social Elective

6th Semester

- Operations Research III **(English)**
- Simulation **(English)**
- Production Planning and Control II
(English)
- Statistical Quality Control **(English)**
- Project Management **(English)**
- Technical Elective
- Social Elective
- **Summer Training II**

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CURRICULUM

7th Semester

- Technical Experience Programme
or
- Industrial Engineering Design
- 3 Technical Elective Courses

8th Semester

- Senior Project
- Engineering Economy
- 3 Technical Elective Courses

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Technical Elective Courses

5th Semester Electives

- Product Development
- Mathematical Modeling and Applications
- Design of Experiment
- Quality Management

6th Semester Electives

- Maintenance Management
- Service Systems
- Lean Production
- Time Series Analysis and Forecasting

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Technical Elective Courses

7th Semester Electives

- Multiple Criteria Decision Making
- Optimization Techniques
- Assembly Line Balancing
- Scheduling
- Six Sigma
- Fuzzy Logic
- Supply Chain Management and Logistics
- Production Information Systems

8th Semester Electives

(All in English)

- Data Mining
- Decision Analysis
- Intelligent Manufacturing Systems
- Innovation Management
- Strategic Marketing Management
- Artificial Intelligence Applications
- Strategic Human Resources Management

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Department of Industrial Engineering

Why to choose us?

❑ Updated and comprehensive curriculum for Industrial Engineering



❑ Ability to speak and understand the language of the profession with an education in 30% English



❑ Competent academic staff holding degrees in Industrial Engineering



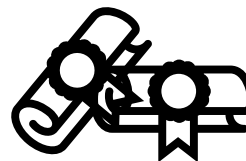
❑ Opportunity to provide students with field experience by cooperating with companies by Technical Experience Programme, Industrial Engineering design, and Senior design courses.



❑ Erasmus collaborations



❑ Opportunity of second major degree





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wishes the best for you

in your university preference period