ÇANKAYA UNIVERSITY
DEPARTMENT OF INDUSTRIAL ENGINEERING

IE 101– INDUSTRIAL ENGINEERING ORIENTATION
(2 0 2) (ECTS:3)

Spring 2026

Instructor

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Course Schedule

(Will be announced later)

Office Hours

(Will be announced later)

Textbook

There is no specific textbook for this course. There is no specific textbook for this course. Lectures are based on a variety of external materials, reference books, and supplementary reading materials.

Additional Resources:

1. **Turner, W.C., Mize, J.H., Case, K.E., & Nazemetz, J.W.** (1993). *Introduction to Industrial & Systems Engineering* (3rd ed.). Prentice Hall. ISBN: 978-0134817897.
2. **Taylor, J.R.** (1996). *An Introduction to Error Analysis* (2nd ed.). University Science Books. ISBN: 978-0935702750.
3. **Salvendy, G.** (2007). *Handbook of Industrial Engineering* (2nd ed.). John Wiley & Sons, Inc. ISBN: 978-0470172339.
4. **Zandin, K.** (2001). *Maynard's Handbook of Industrial Engineering* (5th ed.). McGraw-Hill. ISBN: 978-0070411029.
5. **Gass, S.I., & Assad, A.A.** (2006). *An Annotated Timeline of Operations Research*. Springer-Verlag US. ISBN: 978-1402081163.
6. **Harris Jr., C.E., Pritchard, M.S., Rabins, M.J., James, R.W., & Englehardt, E.E.** (2019). *Engineering Ethics: Concepts and Cases* (6th ed.). Cengage Learning. ISBN: 978-1337554503.

Course Description:

This course introduces the fundamental concepts and scope of industrial engineering. It covers the history, methodologies, and applications of industrial engineering in solving real-world problems. Additionally, it

provides insights into university life, academic expectations, and institutional rules and regulations to enhance student engagement and facilitate adaptation to the academic environment.

Course Objectives

This course is designed to establish an overall and coherent view of industrial engineering concepts in relation to the engineering profession in general and the industrial engineering curriculum.

Course Learning Outcomes

Upon successful completion of this course, students will have developed:

- ✓ an awareness of basic concepts in engineering and industrial engineering discipline,
- ✓ an understanding of the academic and university life, rules, and regulations.
- ✓ aware of ethical issues.

Tentative Course Topics

A tentative outline of the topics is provided below. Please note that the instructors reserve the right to make changes to the topics and schedule as necessary.

Week	Topic	Description
1	A Brief History of Engineering and Industrial Engineering	Overview of engineering evolution and the origins of industrial engineering.
2	Introduction to Çankaya University's Department of Industrial Engineering	Familiarization with the department's programs, resources, and faculty.
3	University Life, Academic Requirements, and Expectations	Academic integrity, study habits, and strategies for success at university.
4	Written and Oral Communication	Key skills for professional and academic communication.
5	Software Usage in Communication and Calculation	Introduction to essential tools such as Microsoft Office.
6	Preparing for Professional Work Life as an Industrial Engineer	Career planning, job opportunities, and networking strategies.
7	Ethical Conduct, Rules, and Regulations	Principles of engineering ethics and adherence to institutional policies.
8	Introduction to Error Analysis, Dimensions, and Units	Understanding measurement systems, accuracy, and precision in engineering.
9	Introduction to Work Study and Ergonomics	Fundamentals of work analysis and designing for human well-being.
10	Deterministic Models in Operations Research	Basic optimization models and applications in decision-making.
11	Risk, Uncertainty, and Data Analysis	Tools and techniques to analyze risks and interpret data effectively.
12	Simulation Models	Introduction to simulation techniques for system analysis and improvement.
13	Supply Chains and Logistics	Basics of supply chain management and logistics in industrial systems.
14	Production Planning and Scheduling	Principles and methods for efficient production management.

Course Web Page

A course web page will be available at https://webonline.cankaya.edu.tr. Students should regularly access this page for updates on class announcements, lecture notes, and assignments. Lecture slides may not cover all in-class discussions and problem solutions, so students are encouraged to attend classes and take detailed notes.

Grading

Midterm and final exams will be held according to the university policies. Please follow the university web page for any updates/changes on how exams will be held.

Method	*Number*	*Contribution (%)*
Midterm	1	35%
Final Exam	1	40%
Assignments	2	25%

Details

Assignments are designed to assess students' understanding of key industrial engineering principles. This component will contribute 25% of the total course grade.

Teamwork is essential for the homework, and students will be responsible for collaborating on problem-solving and report writing. Assignments will be completed in groups of at least 3 and at most 5 students. Group formation is the responsibility of the students. Those who do not form a group will be assigned by the instructor. Further details and submission deadlines will be announced during the semester.

Assignments may include homework and/or a quiz

The assignment score may include **homework (%10) and a quiz (15%).**

Make-up Policy

A make-up examination for the midterm or final exam will only be given under exceptional circumstances (such as serious health problems). The student must contact the instructor as early as possible and provide proper documentation (e.g., a **medical report certified** by Çankaya University's Health Center). A make-up exam might contain different types of questions than the regular exam.

Attendance Requirement and Examination Policy

Attendance will be recorded manually at the start of each class session. Students are required to sign the attendance sheet to confirm their presence. Failure to sign the sheet will result in the student being marked absent for that session.

By the decision of the University Senate, a **minimum 60% attendance** is **mandatory** for the course.

In accordance with Article 24 of the Çankaya University Associate and Undergraduate Education and Examination Regulations, the following rules apply:

(4) For courses with a final examination, the examination procedure is as follows:

c) Students who fail to meet the attendance requirement are **not permitted** to **take the final exam**. If such a student takes the exam, the exam will be considered invalid.

(9) Medical reports and make-up examinations:

d) Days covered by **medical reports** are **counted** as **absences**.

Conditions that Lead to an "NA" Grade

Any of the following may lead to receiving the letter grade **NA (Not Attended)**:

- If a student fails to attend at least **60%** of the lectures, they will not be allowed to take the final exam and will receive a grade of **NA**.
- If a student fails to take the **midterm exam** or the **final exam** without valid documentation, they will receive the letter grade **NA**.

Classroom Policy

Students are expected to maintain a professional and respectful environment in class. Disruptive behavior, including the use of mobile devices for non-course-related purposes, will not be tolerated. Participation in discussions and problem-solving exercises is highly encouraged to enhance learning.

You are responsible for all announcements made in class and on the class web page, as well as printing the lecture notes and other cited materials from the class web page and other sources.

Audio or video recording, or taking photographs, during class is not permitted without the instructor's explicit permission.

Unauthorized recording or sharing of any class content, including lectures, slides, discussions, or images of the instructor or students, is strictly prohibited due to privacy and data protection considerations.

Any violation of this policy may result in the recording being deleted and the activity being treated as misconduct.

Use of Artificial Intelligence (AI) Tools

During exams, the use of electronic devices (mobile phones, tablets, smartwatches, or any internet-enabled devices) is strictly prohibited. Therefore, the use of AI tools is automatically not permitted during examinations.

For homework and the project, limited use of AI tools (e.g., ChatGPT or similar systems) is permitted only for support purposes such as brainstorming, language editing, or conceptual clarification. AI tools must not be used to generate solutions, answers, reports, or any content that is submitted as the student's own work.

Any AI assistance must be clearly disclosed. Undisclosed or excessive AI-generated work will be treated as academic dishonesty.

If unauthorized AI use is detected, the assignment or project will be considered invalid, receive **a grade of zero**, and may be subject to disciplinary action.

Honesty Policy

Academic integrity is expected of students of Cankaya University at all times, whether in the presence or absence of the faculty. All students should declare their understanding and belief in the Honor Code for the examinations and assignments. This statement is a reminder of your obligation as a student to uphold honesty in all work submitted and exams taken in this course and all others.

If you conduct any dishonest act during an examination or for the completion of an assignment (i.e., cheating on an exam, using any extra material that you are not allowed to use during an exam, copying material off of someone else's homework or assignment, using solution keys from previous years, copying material from published and electronic sources without paraphrasing and/or citing appropriately), you will get a credit of zero on that particular exam or assignment. Necessary disciplinary action, as required by the University's rules, will also be taken.

Honor Code Agreement and Submission

All students must acknowledge and agree to the course rules and academic integrity policy by submitting a signed Honor Code form.

Students are required to:

1. Handwrite the Honor Code statement

2. Sign it using a blue-ink pen
3. Upload the file to WebOnline by the end of the Add–Drop week

Failure to submit the signed form may result in being considered non-compliant with course requirements.

Students involved in any dishonest act will receive a grade of zero for the relevant exam or assignment

Naming of Honor Code file: IE101_HonorCodeStatement_NameSurname_StudentID_2026

Changes to the Syllabus

The instructor reserves the right to make changes to the syllabus as necessary. Any changes will be announced on the course website.