# Frequently asked questions (FAQs) about ENS 208 – Introduction to Industrial Engineering

The FAQs are presented into seven parts as

Part A Course description

Part B Classroom setting

Part C Course requirements

**Part D** Hardware, software and programming

Part E Outline

Part F Grading

**Part G** Rules and regulations

# **Part A: Course Description**

**Q:** What is the purpose of this course? What can I do upon completing this course?

The purpose of this course is to take you to a journey on a set problems and case studies that modern Industrial Engineers are involved with in real-life. At the end of this journey, we will also discuss history of Industrial Engineering and what Industrial Engineers do from a more philosophical perspective.

Upon completing this course, you will be able to

- implement algorithms for business problems that can be depicted as an analytical/mathematical problem
- develop mathematical models in the form of linear programming problem formulations and solve these problems with (commercial) solvers
- comprehend how variation and randomness in life/observations can be depicted with functions
- establish the link between industrial engineering and required professional skills
- identify IE problems that you can attack, formulate and solve
- familiarize yourself with industrial engineering profession

### Part B: Organization and Classroom Setting

**Q1:** How many sections do we have? Who are the lecturers? Where and when will classes meet?

- The course is delivered in three sections: A, B, C.
- Section A is moderated by Emre Ozlu (emre.ozlu@sabanciuniv.edu).
- Sections B and C are moderated by Beste Başçiftci (beste.basciftci@sabanciuniv.edu).

- All sections will be conducted online over Zoom.
- Meeting Hours for Sections A & B:
  - o Mondays 11:40 13:30 (Section A: https://sabanciuniv.zoom.us/j/4489189741) (Section B: https://sabanciuniv.zoom.us/j/99150964252)
  - o Wednesdays 10:40 12:30 (Section A: https://sabanciuniv.zoom.us/j/4489189741) (Section B: https://sabanciuniv.zoom.us/j/91748972197)
- Meeting Hours for Section C:
  - o Mondays 15:40 17:30 (Section C: https://sabanciuniv.zoom.us/j/98222589186)
  - o Wednesdays 14:40 16:30 (Section C: https://sabanciuniv.zoom.us/j/93359557760)

**Q2:** Who are the teaching assistants (TAs), and learning assistants (LAs)?

• Teaching Assistants are:

0	İsmail Gökay Doğan (igokay@sabanciuniv.edu)
0	Aysu Melis Büyük (mbuyuk@sabanciuniv.edu)
0	Oğulcan Doğan (ogulcandogan@sabanciuniv.edu)
0	Semih Dilmaç (semihdilmac@sabanciuniv.edu)
0	Ahmet Atakan Arkan (aarkan@sabanciuniv.edu)
0	Navid Aftabi (navid@sabanciuniv.edu)

• Learning Assistants are:

0	Baturalp Ozdamar (baturalp@sabanciuniv.edu)
0	Zehra Lara Tekbas (zlara@sabanciuniv.edu)
0	Deniz Baran Düzova (denizduzova@sabanciuniv.edu)
0	Efe Tiras (etiras@sabanciuniv.edu)

- Office Hours of Teaching Assistants:
  - Oğulcan Doğan: Monday 13.40-15.30

https://sabanciuniv.zoom.us/j/6397460136?pwd=dEJ3emtqZC9BNEh1MS9iMmNGelBqdz09

Meeting ID: 639 746 0136

Passcode: 143256

• Melis Büyük: Tuesday 9.40-11.30

https://sabanciuniv.zoom.us/j/6990901334?pwd=M2E5SVJoU1RCVHB4SFVOYTZBRXVkUT09

Meeting ID: 699 090 1334

• Navid Aftabi: Tuesday 14.40-16.30

https://zoom.us/j/7788801528?pwd=WVRPTlBrN0pZMFNjRjF4ai9HdFVmUT09

Meeting ID: 778 880 1528

• Gökay Doğan: Wednesday 13.40-15.30

https://sabanciuniv.zoom.us/j/9655909430

Meeting ID: 965 590 9430

• Atakan Arkan: Thursday 11.40-13.30

https://zoom.us/j/2967393117?pwd=b1JqOXdsUVFTR0xoNkFkbUtFb1RiQT09 here is

my ID

Meeting ID: 296 739 3117

Passcode: 0MXcS3

• Semih Dilmaç: Thursday 17.40-18.30

https://sabanciuniv.zoom.us/j/6195432724

Meeting ID: 619 543 2724

## **Part C: Course Requirements**

**Q1:** What is the working knowledge or any prerequisite?

• Sophomore standing is recommended. The prerequisite for the course is knowledge of basic courses in mathematics (MATH 101 and 102) and basic skills for computational problem solving (IF 100), or the equivalent.

## **Q2:** Is attendance **mandatory**?

- You are expected to attend the lectures which you are registered to. Attendance is mandatory and will be checked in each class. According to YÖK regulations, at least 70% attendance is required. If you fail to satisfy this requirement, your course grade will be NA.
- To be able to be counted in the attendance, you need to enter the online sessions as an authenticated user with your Zoom account associated with your Sabanci University e-mail address, and remain in the session starting from the class start time until the class end time

# **Q3:** Are there any special rules for attendance?

- Yes. It is required that the students <u>attend the classes with a computer</u> (via which an algorithm can be texted and run properly, and the outputs can be uploaded to a designated site). Students without a functional computer <u>shall not be admitted</u> to the sessions.
- To enhance active learning and conduct quizzes during the online sessions, each student is required to set up a Tophat account with their Sabanci University e-mail address. Tophat join code for each Section is:

o Section A: 662002

o Section B: 051603

o Section C: 587634

## **Q4:** Are there any quizzes?

- Every week we can have pop-up quizzes during the lecture hours. The topics of these quizzes can include both the concepts (you may refer to as "theory") and the applications including the algorithms and coding exercises.
- To be able to be evaluated for quizzes, each student should join the Tophat class of the Section that they are registered.

### Q5: Any specific requirement for the first week?

- Yes. Attendance is specifically required for the first meeting times in the first week, on the 5th October, where/when we deliver introductory remarks and requirements.
- The platform (*anaconda*) must be set up in the computers before the second meeting on Monday, October 12. It is highly recommended that each student shall recollect his/her fundamentals about Python before the first meeting.

#### **O6:** Do we have a **textbook**?

• No. We will have lecture notes, reading materials, chapters from books, case ("real life") documents, coding tutorials, and ... "All that jazz" will be available on SU Course.

## Part D: Hardware, software and programming

**Q1:** What programming language will we use?

• We use Python (https://www.python.org/) which is the same programming language used in the freshman year course <u>IF100</u> *Computational Approaches to Problem Solving*.

**Q2:** Which *platform* will be used for the python language?

• We utilize "*anaconda*" which is known as the "most popular" and easy to use python data science *platform*. It may be downloaded from the following URL: https://www.anaconda.com/products/individual

Please select <u>Python version 3.8.</u>

• **NOTE:** There should be no Turkish alphabet specific characters in the path name of the directory where you are trying to install Anaconda.

### Part E: Outline

Week 1 Overview of syllabus and expectations, installation of required software.

**Weeks 1-4** Module 1 – Traveling Salesman Problem and Vehicle Routing Problem

**Week 5** Midterm Exam 1 – November 4, 19:00 - 21:00

Week 6-9 Module 2 – Linear Programming Formulations and Solvers

Week 10 Midterm Exam 2 – December 9, 19:00 - 21:00

**Week 11-14** Module 3 – Randomness and Variation in Observations

## **Part F: Grading**

**Q1:** How will you evaluate students' performances?

- We evaluate students' performance through three exams and quizzes.
- Midterm and final exams will be conducted online. Quizzes will be held at Tophat and/or Sucourse+. Further details will be provided within the semester.
- The quizzes with the lowest two grades will be removed from the evaluation.

Grade Components Percentage

Midterm Exams 50% (two exams, 25% each)

Final Exam 35% Quizzes 15%

*Total* **100 pts.** 

**Q2:** What is the passing grade?

In order to receive a passing letter grade:

- You are required to take minimum 25 from the Final Exam.
- You are required to maintain an average grade of "40".
- You are required to attend 70% of the classes.

# Part G: Rules and regulations

### **Make-up Policy:**

- A single comprehensive make-up exam will be offered after the final exam to those who have missed a midterm or the final exam.
- A medical report must be e-mailed to us from the Health Center in order to be eligible for the make-up.
- If you miss more than one exam, the remaining grades will be "zero" regardless of your excuse.
- There is no make-up for quizzes.

# **Academic Integrity and Conduct:**

Each student in this course is expected to abide by the Sabanci University Academic Integrity Statement (available at <a href="http://www.sabanciuniv.edu/en/academic-integrity-statement">http://www.sabanciuniv.edu/en/academic-integrity-statement</a>) and to behave properly against the instructor and the course assistants. The violations of the integrity principles and any disrespect toward course assistants will not be tolerated.

#### Disclaimer:

The instructors reserve the right, when necessary, to alter the grading policy, change examination dates, and modify the syllabus and the course content. Modifications will be announced in class and via SUCourse. Students are responsible for keeping up with the announced changes.