

Course Details

ECTS Credits: 6
Contact Hours: 4 TP
Semester: 2nd

Learning Objectives and Core Competencies

- Understand the basic concepts of Linear Programming.
- Formulate different types of problems.
- Solve problems using appropriate methods.
- Interpret solutions and evaluate the impact of changes in model parameters.

Faculty

Cristina Requejo Quelhas 2 – 302 crequejo@iseg.ulisboa.pt PM1-E E21
Lígia Amado Quelhas 6 – 505 lamado@iseg.ulisboa.pt PM1 M21

Schedule

PM1-E E21 Tue | 10:00 – 12:00 | F1.109 Thu | 08:00 – 10:00 | F1.109
PM1 M21 Tue | 11:00 – 13:00 | F1.106 Thu | 09:00 – 11:00 | F1.AF21

Assessment dates

Regular Exam May 18 18:00
Resit Exam June 05 12:00
Special Exam July 01 15:00

Course Schedule

Start of classes: 26 January
End of classes: 29 April (**12 teaching weeks**)
Days without classes: Carnival - 16 and 17 February
Easter Break - 30 March to 6 April
Number of classes: 24 sessions

Course Content

- Ch. 1 - Introduction to Linear Programming
- Ch. 2 - The Simplex Method
- Ch. 3 - Duality
- Ch. 4 - Post-Optimization and Sensitivity Analysis
- Ch. 5 - Transportation and Assignment Problems

Bibliography

- Taha, H. A. (2017). Operations Research: An Introduction (10th ed.). Pearson Education. ISBN-13: 978-1292165547
- Hillier, F. S., & Lieberman, G. J. (2015). Introduction to Operations Research (10th ed.). McGraw-Hill Education.

Study Support Resources

Reading a textbook is essential for studying.

To **complement** the study of the course, various supporting materials are made available on the Fénix platform. Slides covering the main topics taught in class will be provided and progressively updated throughout the semester. Exercise sheets related to the covered content will also be made available. Additionally, exams from previous academic years are accessible for practice.

Clarification of Doubts

Students may clarify their doubts with the instructors during the office hours provided for this purpose. Whenever they feel the need, they should contact the instructor, at the end of the class or by email, to schedule an office hour session.

Assessment Rules

1. The assessment for this course consists of a single exam covering all the material taught.
2. Students who achieve a final grade equal or higher than 17 (on the 0–20 scale) may be required to take a supplementary exam.
3. Fraud committed during an exam will result, among other measures, in the annulment of that exam, with all the consequences provided for in the RGAC.

Instructions for Assessment Exams

1. All assessment exams are conducted **without consultation** and **without the use of calculators**.
2. Only black or blue indelible ink pens are permitted. Exams written in pencil or on draft paper will not be accepted or graded.
3. The use of correction fluid or correction tape is not permitted. In case of error, the answer must simply be crossed out.
4. Draft paper will be provided to students.
5. Students may not have with them or within reach any unauthorized written materials (e.g., books, notebooks, sheets), nor any electronic devices (laptops, audio or video devices, mobile phones, wireless communication watches – smartwatches –, pagers, etc.).
6. Any electronic device, mobile phone, wireless communication watch (smartwatch), or other mobile communication device detected in a student's possession, whether switched on or off, will result in the **immediate annulment of the exam**.

7. Items not strictly necessary for the exam (backpacks, bags, etc.) must be placed next to the invigilators' desk or in another location designated by the invigilators.
8. During the exam, students will be identified by the invigilators and must sign the attendance sheet.
9. Students are not allowed to sit the exam unless they present their **Citizen Card** or another legally valid photo identification document, as well as their **Student Card**.
10. Students without identification documents may take the exam; however, they must sign the exam paper using the name exactly as it appears on their Citizen Card. The exam will be accepted conditionally. Within the two working days following the exam, the student must present the identification document to the course coordinator and sign again; failure to do so will result in the annulment of the exam.
11. In the event that a student decides to withdraw from the exam, they must inform the invigilator and sign their intention to withdraw in the designated space on the exam paper, which must then be handed in.
12. Any unauthorized departure from the examination room will result in the annulment of the exam.
13. The exams of any candidates, as well as any accomplices, who commit or attempt to commit any form of fraud during the exam will be immediately suspended, and such candidates may not leave the room.
14. Once the exam time has ended, students must immediately submit their exam papers to the invigilators.

Results and Exam Consultation

The results of the assessment exams will be published on the Fénix platform.

After the publication of the results, students may consult their exam papers. The date and time for the exam consultation will be scheduled and announced in advance.