Exchange programme Vrije Universiteit Amsterdam

Vrije Universiteit Amsterdam - Exchange programme Vrije Universiteit Amsterdam - 2024-2025

Exchange

Vrije Universiteit Amsterdam offers many English-taught courses in a variety of subjects, ranging from arts & culture and social sciences, neurosciences and computer science, to economics and business administration.

The International Office is responsible for course approval and course registration for exchange students. For details about course registration, requirements, credits, semesters and so on, please visit the exchange programmes webpages.

Operations Research I

Course Code	E_EOR2_OR1
Credits	6
Period	P1+2
Course Level	200
Language Of Tuition	English
Faculty	School of Business and Economics
Course Coordinator	dr. M.A. Estevez Fernandez
Examiner	dr. M.A. Estevez Fernandez
Teaching Staff	prof. dr. L. Stougie, C.P.C. Franssen, dr. M.A. Estevez Fernandez
Teaching method(s)	Written partial exam, Study Group, Lecture

Course Objective

An introduction into optimization, and in particular deterministic optimization. One aim is to learn how to model a practical optimization problem into the appropriate mathematical formulation. The other is to learn the theory and application of solution methods for general classes of optimization problems.

Course Content

This is an introductory course in deterministic optimization. The optimization models studied are unconstrained non-linear optimization, constrained non-linear optimization, convex optimization, linear optimization and integer linear optimization. Solution techniques for these classes of optimization problems are the central theme of this course. Another important element of the course is the mathematical formulation of (practical) verbally described problems as instances of the optimization models, and application of the solution methods to solve the resulting problems.

Additional Information Teaching Methods

Lectures: 2 hours per week. Tutorials: 1 hour per week

Method of Assessment

Separate exams for the first half (period 1) and second half (period 2) of the course are held at the end of each period. The overall grade is the average of these two partial exams. There is a minimum grade requirement in the first partial exam to have access to the second partial exam. Individual assignments, such as short quizzes or written feedback on aspects of the course - will be assigned as the course progresses. Failure to participate will result in a penalty to the overall grade. A re-sit combines the two parts into one exam.

Literature

H.A. Taha: Operations Research: An Introduction, International Edition, 9th or 10th Ed., Pearson.

Additional Information Target Audience

2nd-year students Econometrics and Operations Research, Applied Mathematics students

Additional Information

The course is suitable to be taken in an exchange programme for students who have successfully completed courses in Linear Algebra and Analysis.
Please note that this course is part of an entry requirement for Integrative Practical (part of BSc Econometrics and Operations Research).

Recommended background knowledge