

Advanced Optimisation Course

This course builds on the introductory course and focuses on concepts in global optimisation, bilevel optimisation, multi objective optimisation, dynamic optimisation, optimisation under uncertainty. It is suitable for attendees who have a basic knowledge of optimisation or who have attended the Introduction to Optimisation and would like to further their knowledge.

Instructions

The course will take place online. You will be given course materials and videos of each module, two weeks in advance. Please read the course materials and familiarise yourself with the content and watch the videos as much as you need. On the day of the course you will be able to attend live sessions with the tutors. The live sessions will take place in the morning and afternoon. You would have been asked to choose a morning or afternoon live session when registering for the course. Please make a note of your live sessions. You can only attend one live session per module so please ensure you are on time.

Imperial College
London



The Sargent Centre
for Process Systems Engineering

Advanced Optimisation Course
23-24 September 2021

Enrolments

Course enrolments are open until 10th September 2021. Please note, the course will be held in the afternoon, unless, there is demand for morning sessions.

Cancellations

Cancellations must be received in writing before or on 15 September 2021 and will be subject to an administration charge of £50.00. It is regretted that cancellations received after 15 September 2021 cannot be accepted and the attendee will be liable for the full course fee. Substitutions may be made at any time, whilst a valid place is held. The organiser cannot accept liability for costs incurred in the event of a course having to be cancelled as a result of circumstances beyond its reasonable control.

If you would like to discuss the course, please email us on:
cpse@imperial.ac.uk





Advanced Optimisation Course

23 September 2021 – Morning Session

Optimisation Under Uncertainty

Optimisation Under Uncertainty Live Session (Prof. Nilay Shah)

- 09.00 - 09.10 Summary
- 09.10 - 09.20 Q&A (Optimisation Under Uncertainty)
- 09.20 - 10.05 Hands-on exercise
- 10.05 - 10.20 Break

Multi-Objective Optimisation

Multi-Objective Optimisation Live Session (Dr Vasileios Charitopoulos)

- 10.20 - 10.30 Summary
- 10.30 - 10.40 Q&A (Multi-Objective Optimisation)
- 10.40 - 11.25 Hands-on exercise
- 11.25 - 12.10 Break

Optimisation Surgery: Bring your own problem

- 12.10 - 13.10 Optimisation Surgery Live Session with Tutors

23 September 2021 – Afternoon Session

Optimisation Under Uncertainty

Optimisation Under Uncertainty Live Session (Prof. Nilay Shah)

- 14.00 - 14.10 Summary
- 14.10 - 14.20 Q&A (Optimisation Under Uncertainty)
- 14.20 - 15.05 Hands-on exercise
- 15.05 - 15.20 Break

Multi-Objective Optimisation

Multi-Objective Optimisation Live Session (Dr Vasileios Charitopoulos)

- 15.20 - 15.30 Summary
- 15.30 - 15.40 Q&A (Multi-Objective Optimisation)
- 15.40 - 16.25 Hands-on exercise
- 16.25 - 17.10 Break

Optimisation Surgery: Bring your own problem

- 17.10 - 18.10 Optimisation Surgery Live Session with Tutors

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Advanced Optimisation Course

24 September 2021 – Morning Session

Bilevel Optimisation

Bilevel Optimisation Live Session (Dr Remigijus Paulavicius)

- 09.00 - 09.10 Summary
- 09.10 - 09.20 Q&A (Bilevel Optimisation)
- 09.20 - 10.05 Hands-on exercise
- 10.05 - 10.20 Break

Neural Networks

Neural Networks Live Session (Dr Anastasia Borovykh)

- 10.20 - 10.30 Summary
- 10.30 - 10.40 Q&A (Neural Networks)
- 10.40 - 11.25 Hands-on exercise

24 September 2021 – Afternoon Session

Bilevel Optimisation

Bilevel Optimisation Live Session (Dr Remigijus Paulavicius)

- 14.00 - 14.10 Summary
- 14.10 - 14.20 Q&A (Bilevel Optimisation)
- 14.20 - 15.05 Hands-on exercise
- 15.05 - 15.20 Break

Neural Networks

Neural Networks Live Session (Dr Anastasia Borovykh)

- 15.20 - 15.30 Summary
- 15.30 - 15.40 Q&A (Neural Networks)
- 15.40 - 16.25 Hands-on exercise