

# MS-E2148 Dynamic optimization

## Practicalities

# Staff

- ▶ Lectures: Harri Ehtamo
- ▶ Exercises: Anton von Schantz
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# Prerequisites

- ▶ 1st and 2nd years math
- ▶ MS-C2105 Introduction to Optimization (or equivalent)

# Teaching

- ▶ 10 lectures, 2h per week, Wednesdays 14:15-16:00
  - ▶ First lecture Wednesday 16.1
  - ▶ Last lecture Wednesday 27.3
  - ▶ No lecture during exam week on Wed 20.2
  - ▶ All lectures in hall U5
- ▶ 10 exercise sessions, 2h per week, Tuesdays 14:15-16:00
  - ▶ First session Tuesday 22.1
  - ▶ Last session Tuesday 2.4
  - ▶ No session during exam week on Tuesday 19.2
  - ▶ 22.1, 5.2, 12.2, 5.3, 12.3, 19.3, 26.3, 2.4 the exercise sessions are in hall U7
  - ▶ 29.1, the exercise session is in hall U9
  - ▶ 26.2, the exercise session in in hall U6

# Exam times

- ▶ Tuesday 9.4.2019 13-16
- ▶ Friday 31.5.2019 13-16

# Passing the course

- ▶ Exam
- ▶ Extra points can be earned
  - ▶ Exercises presented in class, 2p
  - ▶ Homework problems, 4p
  - ▶ DL for homework is Tuesday following week 14:00
  - ▶ Handwritten homework returned to exercise session or metal box opposite of Y192
  - ▶ Homework in pdf-format can be returned to MyCourses
- ▶ Extra points are good until the next year's course

# Material

- ▶ Lecture slides
- ▶ Exercise material
- ▶ Additional reading:
  - ▶ Bertsekas, D.P., Dynamic Programming and Optimal Control, Vol. 1, Athena Scientific 2000
  - ▶ Kirk, D.E., Optimal Control Theory. An Introduction, Dover 2004 (main course book)
  - ▶ Kamien, M.L., Schwartz, N.L., Dynamic Optimization – The Calculus of Variations and Optimal Control in Economics and Management, 2nd ed., North Holland 1991