Aalto University
School of Engineering

EEN-E3007 - Process Integration and Energy Optimization L

COURSE ARRANGEMENTS

Fall 2023

Risto Lahdelma, Timo Laukkanen

Teachers

Lectures:

- professor Risto Lahdelma (responsible teacher)
- staff scientist Timo Laukkanen (vice responsible teacher)

Exercises:

- PhD Venkata Bandi (Energy optimization)
- PhD Behnam Talebjedi (Process integration)

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Lectures , Tuesdays (14:15 to 16:00)

Date	Topic	Teacher	Classroom	Location
24.10	Linear programming and optimization	RL	326	K1 Mechanical engineering (Otakaari 4)
31.10	Linear programming and multi-period models	RL	326	
07.11	Mixed-Integer Linear Programming Models	RL	U5 – U147	Undergraduate center (Otakaari 1)
14.11	The trans-shipment network models	RL	U5 – U147	
21.11	Pinch analysis/Grand composite curves	TL	U5 – U147	
28.11	Process integration with mathematical programming	TL	U5 – U147	

Exercises

- In the exercises students will solve given problems and teachers will help the students
- After the exercise, a home assignment will be given to the students and the students have one week to solve and return the problem. This home assignment will be graded.
- The home assignment can have multiple parts

Exercises

- Wednesdays in Undergraduate center (Otakaari 1)

  Group A: 14:15-15:45 and **Group B: 16:00-17:30**

Date	Topic	Class room	Assistant
25.10	Linear programming and optimization	Y338	VB
01.11	Linear programming and multi-period models	A046	VB
08.11	Mixed-Integer Linear Programming Model	A046	VB
15.11	The trans-shipment network model	A046	VB
22.11	Pinch analysis/Grand composite curves	A046	BT
29.11	Process integration with mathematical programming	A046	BT

Grading

- Exercise sessions 6 times, 8-10 points each, max. 50 points
  - Personal home assignments needs to be returned and will be graded
  - 1 point attending an exercise session
  - Max 7-9 points for each home assignment
- Exam 50 points
- SUM= max. 100 Points
- Linear scale from 50 point, passing limit 50 points

Exams

- Tuesday December 5, 9:00-12:00
  K1 building room 215