# DM865 (10 ECTS)

Heuristikker og Approximationsalgoritmer

[Heuristics and Approximation Algorithms]

dm865.github.io

Spring semester Lene Monrad Favrholdt • Marco Chiarandini lektorer, IMADA

# **Course Formalities**

Prerequisites:	<ul> <li>✓ Programming (DM502, DM503, DM550)</li> <li>✓ Algorithms and Datastructures (DM507)</li> <li>✓ Complexity and Computability (DM508, DM553)</li> <li>✓ Linear and Integer Programming (DM559, DM545, DM554)</li> </ul>
Semester:	3rd (but challenging), 5th, Master
Credits:	10 ECTS
Language:	English and Danish
Classes:	intro: $2h \times 24$ ; training: $2h \times 20$
Material:	slides + articles + lecture notes + starting code

# Assessment (10 ECTS)

- Two practical project assignments passed/failed with internal censor by the teacher
- Oral exam based on:
  - the theoretical part
  - two practical assignments

Grading by the danish 7-mark scale, external marking. Exam aids allowed.

#### **Contents**

	Apporx Algorithms	Local Search + Meta-heuristics
Set Cover		
Satisfiability		
Traveling Salesman		
Scheduling		
Knapsack		
Bin packing		
Bin Packing		

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