Algorithms and Data Structures

Introduction to the Course

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- More theorem proving.

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- If you are a visiting student or an MSc student, please contact me.

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- You should know:
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  - Some basic probability theory.
  - Some basic graph theory.
  - What it means to prove a theorem, and some techniques for theorem proving (e.g., proof by induction, proof by contradiction, etc).

The Team

Aris Filos-Ratsikas
course coordinator, lecturer

Kat Molinet
TA, tutor

Khalid Belhadj
tutor

Lectures and Tutorials

- **Lectures:**

  Mondays 16.10 - 17.00, Weeks 1-10
  Elizabeth Templeton Lecture Room - New College

  Thursdays 16.10 - 17.00, Weeks 1-10
  LG.11 - 40 George Square Lower Teaching Hub

- **Tutorials:**

  Group 1
  Wednesdays 14.10 - 16.00, Weeks 3-10
  G.01 - Classroom 1 - High School Yards Teaching Centre

  Group 2
  Fridays 14.10 - 16.00, Weeks 3-10
  1.2 - Lister Learning and Teaching Centre

More about tutorials

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- The first hour it will be for you to work on the tutorial questions with other students.

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Yes! They are the best preparation for the assignments and the exam.

Past students have reported that actively engaging with the tutorials was a huge plus for their final performance/mark.

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It’s always better to attend anyway!

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Still, it might be helpful to code some of the algorithms to enhance your understanding.

Assessment

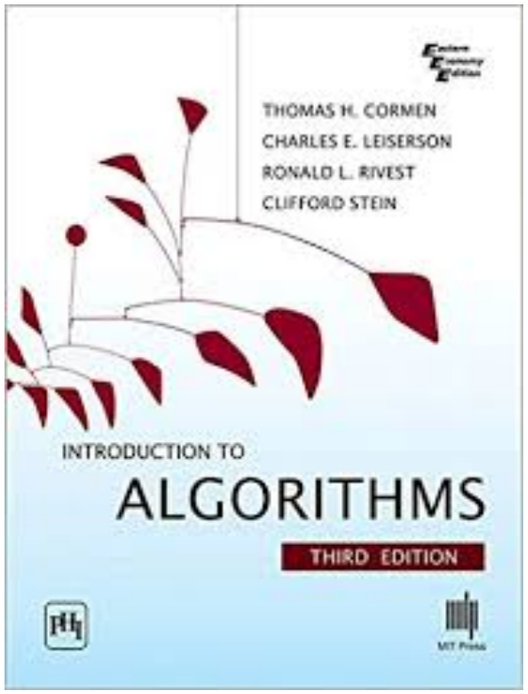
- Written Exam (75%)
- Coursework (25%)
  - Coursework 1 (0% - not accessed): for practice
    Released: 30/09/2024
    Due: 18/10/2024
  - Coursework 2 (25% - accessed)
    Released: 28/10/2024
    Due: 18/11/2024
  - Submission via Gradescope (via Learn).

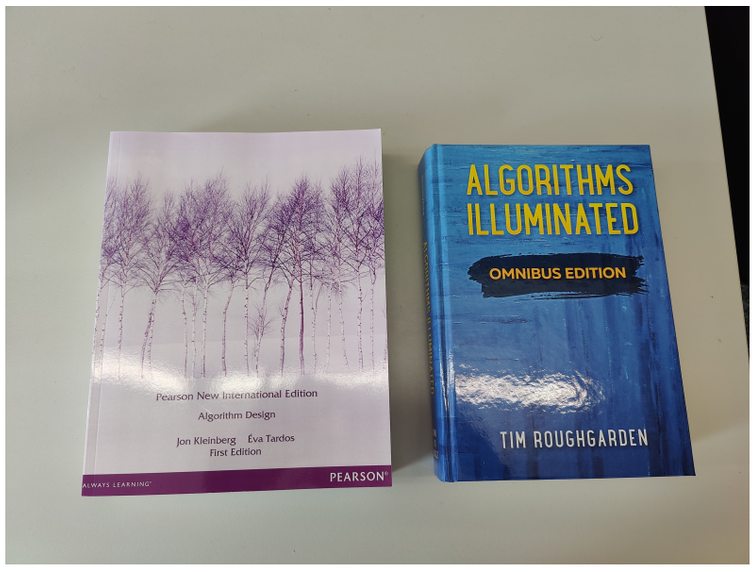
Course textbooks

- Introduction to Algorithms by Cormen, Leiserson, Riverst, and Stein (CLRS).

- Algorithm Design by Kleinberg and Tardos (KT).

- Algorithms Illuminated by Tim Roughgarden.





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- Questions after the lectures are very much welcome!