Introduction to Algorithms and Data Structures
(Inf2-IADS)

Mary Cryan

School of Informatics
University of Edinburgh

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The lecture structure of Inf2-IADS

- “Full-year course” (20 points) running both semesters
- Mary Cryan and John Longley co-lecture the course
- Content is “front-loaded” in each semester.
- Pre-recorded lectures hosted on Media Hopper Create. Each semester:
  - weeks 1-5 2 pre-recorded lectures each week
  - weeks 6-10 1 pre-recorded lecture each week
- “Live Discussion” every Friday between 10am-11am
  (weeks 1-10 each semester)
Our pre-recorded lectures

- Media Hopper Create “playlist” structure
- Each lecture broken into sections
- Include a “worked example” as a segment (when relevant)
- Colour and Music!
- MHC will generate “auto-captions” for the lecture
  - These aren’t always perfect, especially for specialist terms
  - It is possible to correct the captions, and we did.
  - Feedback: students really appreciated the accurate subtitles

(lecture 24: initial segment, worked example: MHC link)
The structure of Inf2-IADS assessment

**cwk1:** “Search Engine for a Large Text Corpus” (worth 10%)

**cwk2:** “Memory recycling, and the knapsack problem” (worth 10%)

**cwk3:** “Heuristics for the Travelling Salesman Problem” (worth 10%)

**Quizzes:** Quizzes 1-5 altogether compose 10% (2% each)

**Blogs:** worth 10%

**Exam!** “Open book”, quick turnaround (worth 50%)
Our “Live Discussions”

- Live on Teams (well, we started on Collaborate . . .)
- Q&A format, though sometimes we would prepare a few slides:
  - some worked examples
  - some expansion as a Python implementation
  - post-deadline discussion of a coursework
  - Q&A on a finished Quiz
- Always had both lecturers there
- Good attendance and Engagement
  (between 40-100 on various weeks, from a class of 370)
- Recorded for others to watch afterwards
- The option to chat in text helps garner questions.
- John’s music! (special requests)
What worked?

Worked :)  

- Lectures (both pre-recorded and “Friday Live”)
- Our Piazza Forum (~1700 threads by end of May 2021
  - The “Engagement blogs” (worth 10%) probably helped generate some of that activity (but I think not all).
- Our courseworks were appreciated.
- Quizzes (5 20-mcq quizzes, sprinkled through the year).
- “Playlists” in MHC allow the option of swapping-in a new Intro and Summary for the next year, while retaining most of the tech content.
- Live Discussions helped bond the class, and it helps to have two lecturers (to avoid silences).
What didn’t work?

Didn’t work :) 

▶ The “Engagement blogs” were not well-liked. (even though they probably helped generate some of the activity in the course). We will drop them next year.

▶ We had 10 tutorials through the year, and attendance was poor, especially after we moved all groups online in February. Some dispirited tutors.

▶ Editing captions in ”Stream” is horrible! (and downloading and editing offline also troublesome). MHC has a much better editor.