

# 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.*