Year 2 Welcome Talk

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Who am I

• Assistant Professor, School of Informatics, 2020 – Now
• PhD, Imperial College London, 2018
• Visiting Researcher@ Microsoft Research, PhD Fellow @ Google
• Research Areas: Computer Systems, Machine Learning, Data Management
• More: https://luomai.github.io/
UG2 Informatics courses

Full year:
• Inf 2-IADS: Informatics 2 – introduction to Algorithms and Data Structures (20pts)
• Informatics 2 – Foundations of Data Science (20pts)

Semester 1:
• Inf 2C – Introduction to Computer Systems (20pts)
• Discrete mathematics and probability (20pts)

Semester 2:
• Informatics 2- Introduction to Software Engineering and Professional Practice (20pts)
• Informatics 2D – Reasoning and Agents (20pts)

Note: Informatics 2 curriculum had been significantly revamped and updated in 2020. Courses are different from years before that.
## Compulsory courses

<table>
<thead>
<tr>
<th>Degree</th>
<th>INF2-IADS</th>
<th>INF2-FDS</th>
<th>INF2C-CS</th>
<th>DMP</th>
<th>INF2-SEPP</th>
<th>INF2D</th>
<th>other</th>
</tr>
</thead>
<tbody>
<tr>
<td>AI</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>CS or SE</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>AI &amp; CS</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>CogSci</td>
<td>?</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>?</td>
<td>PPLS</td>
</tr>
</tbody>
</table>

- Other joint degrees have variable requirements
Year 2  Academic year: 2023/24, Starting in: August

NOTES:
Before making your course choices, make sure you have discussed them with your Personal Tutor.

Compulsory courses

You must take these courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informatics 2 - Introduction to Algorithms and Data Structures</td>
<td>INFRO8026</td>
<td>20</td>
</tr>
<tr>
<td>Informatics 2C - Introduction to Computer Systems</td>
<td>INFRO8027</td>
<td>20</td>
</tr>
<tr>
<td>Informatics 2 - Foundations of Data Science</td>
<td>INFRO8030</td>
<td>20</td>
</tr>
<tr>
<td>Informatics 2 - Software Engineering and Professional Practice</td>
<td>INFRO8032</td>
<td>20</td>
</tr>
<tr>
<td>Discrete Mathematics and Probability</td>
<td>INFRO8031</td>
<td>20</td>
</tr>
</tbody>
</table>

Course options

Level 7 and 8 courses in Schedules A to Q, S, T, W and Y

Select exactly 20 credits from Level 7 and 8 courses in Schedules A to Q, S, T, W and Y

NOTES:
These are courses in all schools other than Medicine, or the Centre for Open Learning.
Choosing outside courses

Strategy 1
• Take the other Inf2 courses for additional flexibility later.
• Inf2D may be important if you are considering changing to MInf.

Strategy 2
• Look for something different you are interested in.
• Choices are similar to year 1
• A list of common outside courses at:
  • a handy list: http://homepages.inf.ed.ac.uk/imurray2/pt/outside_courses.html or Google "Informatics outside courses"
• Discuss with advisors is unsure
Similarities to year 1

• Build consistent weekly study time into your schedule.

• Schedule Independent study time to
  • Revise lecture materials
  • Read textbooks
  • Work through exercises \textit{before} tutorials.

• Over the semester, roughly 4 hours of self-study per hour of lecture (includes revision, tutorial exercises, coursework, etc)
Differences to year 1

- All courses have assessed coursework, most courses have exam

<table>
<thead>
<tr>
<th>Course</th>
<th>Coursework/Exam split</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inf2-IADS (S1, S2)</td>
<td>40/60</td>
</tr>
<tr>
<td>Inf2-FDS (S1, S2)</td>
<td>100/0</td>
</tr>
<tr>
<td>DMP (S1)</td>
<td>60/40</td>
</tr>
<tr>
<td>Inf2C-CS (S1)</td>
<td>50/50</td>
</tr>
<tr>
<td>Inf2-SEPP (S2)</td>
<td>100/0</td>
</tr>
<tr>
<td>Inf2D (S2)</td>
<td>30/70</td>
</tr>
</tbody>
</table>
Passing criteria

• Get 40% overall mark: exam + coursework
Class representative

• Help staff and the University to improve teaching, learning, assessment and academic services.
  • No more than 2 hrs/week during semester times
  • We are looking to get representatives from all kinds of preferences. Joint degree students are welcome to sign up.

• Attend training sessions by Edinburgh University Student Association (EUSA)

• Gather student complaints, comments, and suggestions of all aspects of the year, including course content, delivery and administration

• Attend a one-hour meeting each each week during semester: discussion and feedback (DoT, ITO, SSLC) or EUSA training

• VOLUNTEERS
  • Fill the form: https://forms.office.com/e/ve5GP6nTSQ
Contact and support

- ITO: Course admin (such as tutorials), general enquiries; located in Appleton tower (Kerry Fernie is UG2 secretary, kerry.fernie@ed.ac.uk)
- Tutors, Course lecturers: Questions/feedback on course materials/organization.
- InfBase: Help with exercises, concepts; (in labs at times TBD)
- Class reps: Concerns about courses/year structure.
- Year organiser: Luo Mai
- See Taught student Intranet on Informatics pages
Beyond Regular Learning Activities

• Programming & Analytics Skills
  • Hackathon (Google, Kaggle, ...)
  • Participate as a Team!

• Attend invited talks
  • Research talk, career talk, ...
  • School of Informatics, Edinburgh Future Institute, Bayes Centre

• Internship
  • Coding questions (LeetCode)
  • System design questions ("Crack the coding interview")
  • Presentation, communication, teamwork questions

• Teaching & Research – Key for PhD/MScR application
  • Apply for TA positions in the courses you like
  • Approach faculty members to participate in research work
  • Apply for research internship (ICSA, LFCS, ...)

A few more things

• Nothing is more important than your health. Don’t over-sketch yourself!
• Surface Learning versus Deep Learning

Try to learn something about everything and everything about something.

~ Thomas Huxley