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Advanced Computer Science (ACS) Cambridge MPhil & Part III

Welcome & Introduction

5 October 2020

Mateja Jamnik

Director of Postgraduate Education

Department of Computer Science and Technology

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Overview

What is ACS?

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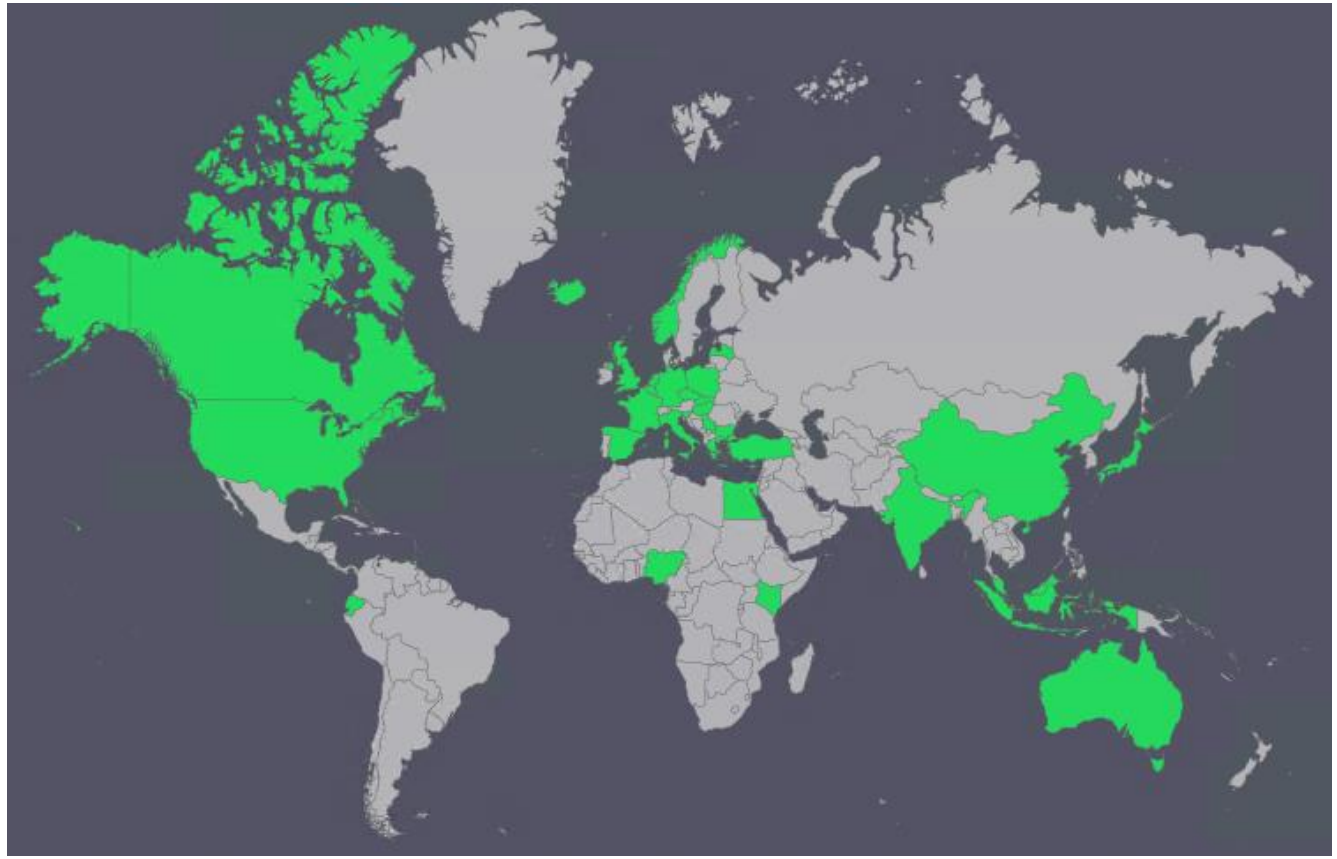
A diverse cohort from around the world

Part III students

- Cambridge CS grads

MPhil students

- Top 5% of cohorts from recognised institutions worldwide



Goal: excellent preparation for PhD (or commercial R&D lab)

Undergrad degrees do not focus on research skills:

- Theorists need solid background in literature and method
- Systems research needs practical skills and knowledge

Funding is increasingly competitive:

- Establish track record, write superior proposals

Try before you buy: do you like being a researcher?

Important: ACS students interested in PhD at Cambridge must apply!

- An Mphil/Part III degree, even with distinction, does not automatically give you a place on the PhD programme

What is a *research preparation* degree?

Emphasis on independent work:

- Research reading, critical analysis
- Practical investigation, rigorous design
- Research mini-projects

The ACS grading criteria relate to research:

90-100% - Original interpretation extending beyond taught material, significant contribution to field.
80-89% - Demonstrates significant insight or creativity.
75-79% - Demonstrates critical thought, thorough understanding, with some minor faults.
70-74% - Evidence of understanding, execution basically good, may contain some faults.
60-69% - Mostly demonstrates understanding, lacking clarity or detail, occasional mistakes.

Evolving course

We listen to past students' input:

- Content review, student forum, end of module surveys
- ACS programme feedback

Facilities and curriculum are constantly updated:

- New modules every year
- Additional dedicated hardware (e.g., GPUs)

The research skills programme is designed for your needs:

- You can give feedback at any time, suggest topics

ACS has many contact points

- **Director of Postgraduate Education** (Mateja Jamnik – mateja.jamnik@cl.cam.ac.uk)
- **Module lecturers**
- **Project supervisors**
- **Course advisers**
  - or Part III Director of Studies (in your College)
- **Graduate education office** (Lise, Joy, Marketa)
- **Computer system admin** (sys-admin@cl.cam.ac.uk)

Induction Day – Monday 5 October 2020

- **09:45 – 10:45** Virtual session to register with the Graduate Education Team
- **11:00 Induction talk** (this)
- **11:45 Researcher development**
- **12:00 Virtual tour of the department**
- **12:15 Lunch** (joint everyone for chat online)
- **14:00 – 17:00 Course advisers** (arranged meeting to finalise your choices)

- **October 2020 Health and Safety Course** (all student must complete online)

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Course Content

Individually customised programme of study

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Assessment by lecturers – customised by course

5 taught modules:

- Each module is marked out of 100
- Marks come from a mix of course work, research mini-projects, term papers, take home tests, and in-house tests
- Assessed work submitted online via Moodle

Individual research project weighted as 7 modules:

- Dissertation marked by supervisor and internal examiner

To pass, you must score 60% in taught modules *and* research project!

Researcher Development: Research Skills Programme (RSP)

- Optional for Part III Students
- Comprises Core (CU) and Optional (OU) units
- 12 units from the mandatory Research Skills Programme
- Begins Wednesday 7 October: Introduction to Academic writing (CU1) – virtual at 11:00

- Dr. Eva Kalyvianaki will give a short talk following this presentation to introduce the RSP

Follow cutting-edge CS research

Wednesday seminars

- Major figures in industry and academia
- Every Wednesday afternoon in Michaelmas term
  - https://talks.cam.ac.uk/show/index/6180
- Keep records in Research Skills log-book

Women@CL initiative

- Informal networking lunch and talk on two Thursdays per term
  - https://talks.cam.ac.uk/show/archive/11550

Industry tech-talks

- With Computer Lab Industry Supporters' Club
  - https://talks.cam.ac.uk/show/index/50582

Research group seminars

- Check individual research group seminar series

Many industry contact opportunities

Many modules and projects have industry input

29/30 October: Annual Recruitment Fair

(50+ companies visit the CL and recruit students)

Other opportunities throughout the year ...

Take great care not to plagiarise others' work

See the following webpage that gives the University Policy on Plagiarism and Academic Misconduct

http://www.admin.cam.ac.uk/univ/plagiarism/

Note this policy covers not only plagiarism but also:

- Collusion
- Self-plagiarism
- Contract cheating
- Fabrication of data
- Possession of unauthorised materials during an examination

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Organisation

What to do when

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Workload management

ACS emphasises:

- a fully individualised programme of study; and
- teaching timetable allowing virtually any combination of modules

You must manage your own particular work programme!

- Typical module: 16 hours in classes, 64 hours independent study
- Practical work and deadlines *will* overlap
- Discuss your workload plan with supervisor / adviser / DoS

Anticipate research risks (including research project):

- Prioritise and plan risky parts first

Project briefing and deadlines

MPhil: 10:00 Wed 7 October, online

Part III: 9:00 Thu 8 October, online

	Part III Project	MPhil Project
Proposal Phase 1	4th November	4th November
Proposal Phase 2/NLP opt	20th November	20th November
Revised project proposals	4th December	4th December
Research begins	7th December	7th December
NLP full proposals	21st January	21st January
Project reviews	12-19th March	12-19th March
Last title changes	21st May	21st May
Presentations	9th June	17/18th June
Submission (*hard deadline*)	**28th May**	**4th June**

- Self-proposed project deadline is 13th November.

Note severe penalties for missing deadlines

Coursework penalty = *n*/10 x mark

- where n is the number of days late, rounded up to the nearest integer

Take-home tests: no submission, zero marks

Project: no submission means outright failure

No deadline extensions save for exceptional circumstances (illness or other grave reason)

- Your college tutor can help
- It is essential to keep us informed and keep records

Challenge with support

Our mission is to provide excellent students with substantial challenges

- We are ambitious, and so are you
- But your welfare and support are essential

In Cambridge, your *college* is your support infrastructure

- Social, wellbeing, relaxation, pastoral care
- Any kind of personal, medical problem: **talk to your college**

Social programme and colleges

Learn and use the Cambridge traditions

Science careers are based on networking (also across disciplines)

Exploit the generous resources

- Meeting rooms
- Sports facilities
- Fine dining
- Societies
- Libraries

Every college is different – enjoy the diversity and opportunities

Be Covid-19 safe!

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Next Steps

The next few days

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Confirm your module assignment

Talk with your Course Adviser/Project Supervisor or DoS for advice

- **Note constraints of availability**

Today only: Discuss selections with Adviser/DoS

- Any change, they can notify Graduate Education Office (GEO)

From tomorrow: Consult Adviser/DoS, then GEO

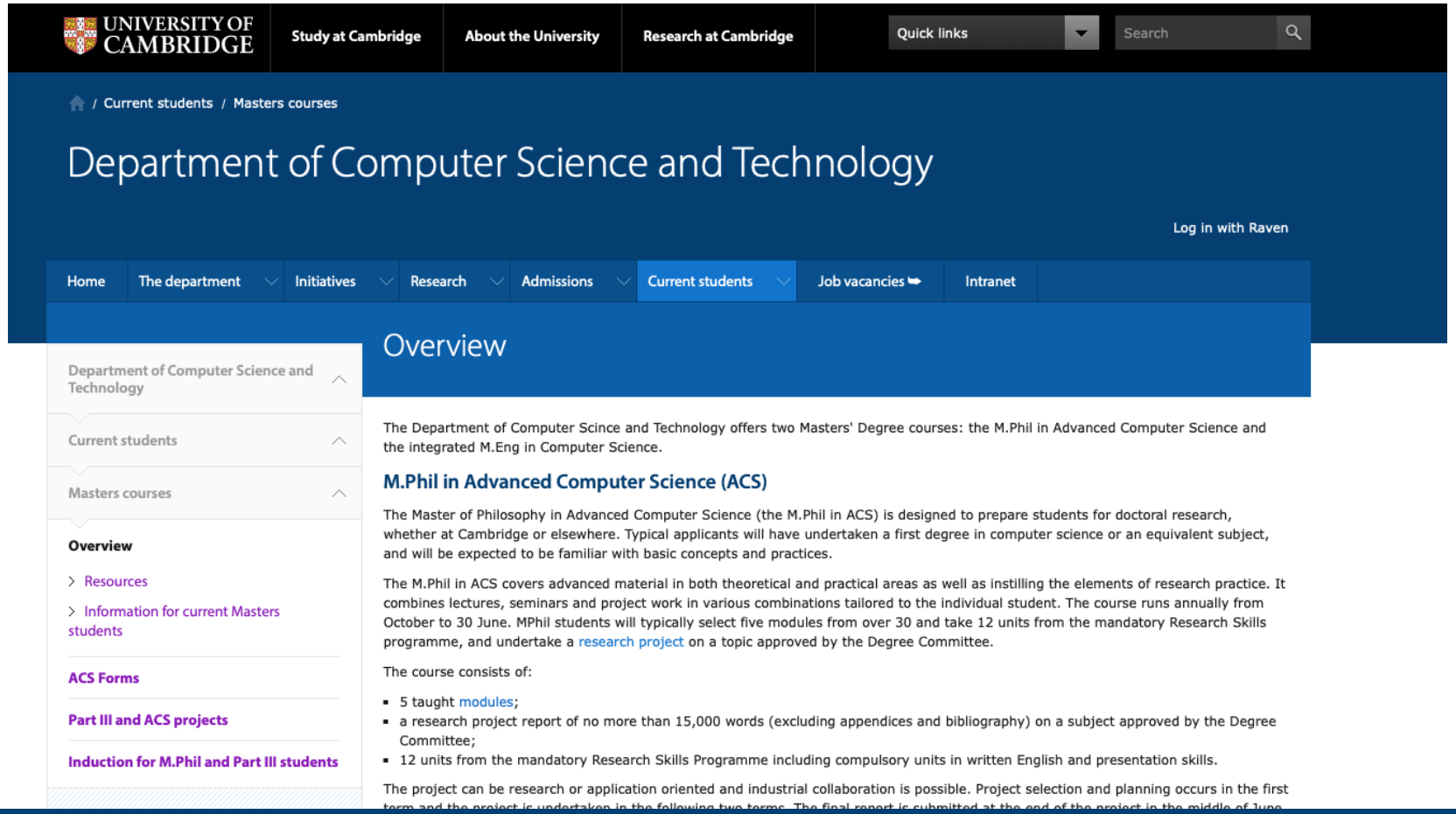
- GEO will check availability / compatibility of new module
- You ask course lecturer to agree & sign Module Change form
- You return signed form to GEO for logging on CamSIS.

Many practical & reading group ('P'/'R') modules allocate coursework and presentation schedules in Week 1, so later change may not be possible.

No changes after 9th October (Michaelmas) or 11th December (Lent modules)

The ACS Handbook is your friend

http://www.cl.cam.ac.uk/teaching/masters/



Enjoy your first week! … and ask for help if you have any concerns

See induction web pages for details: https://www.cst.cam.ac.uk/teaching/masters/induction

Mon 5 October	Registration Day
11:00 – 12:00 12:00 – 14:00 14:00 – 17:00	Induction and Researcher Development Virtual tour, lunch, chat online Meet with your course adviser
Wed 7 October	10:00 MPhil Project Briefing (online) 11:00 CU1 RSP Introduction to Academic Writing in Higher Education (online) 12:30 Using Moodle and 'other things', FAQs
Thu 8 October	09:00 Part III Project Briefing (online) 10:00 Module classes begin
Fri 9 October	09:00 Module classes 17:30 Happy Hour – Details TBC.
October	Compulsory Health and Safety course for new students (online)

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Questions?

Mateja Jamnik
Director of Postgraduate Education
Mateja.jamnik@cl.cam.ac.uk

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