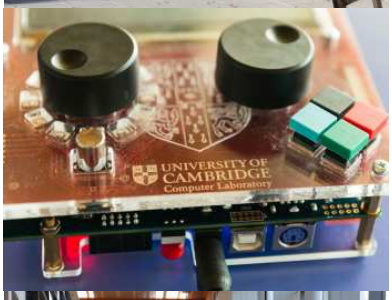
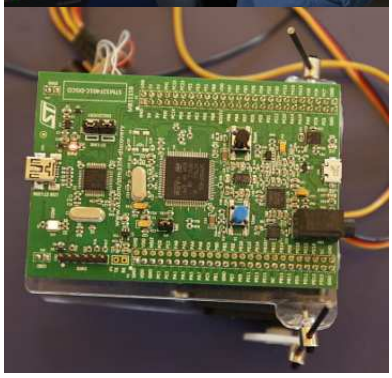
UNIVERSITY OF CAMBRIDGE
Department of Computer Science and Technology

Department of Computer Science and Technology

Computer Science Tripos

An introduction to studying computer science at Cambridge





Why Computer Science at Cambridge?

Computer science is a fast-moving, interdisciplinary field that brings together many subjects, including mathematics, engineering, psychology and linguistics. Additionally the social sciences find application in security and human-computer interaction. Computer science has helped to shape the modern world, and our course provides you with the skills to create the future.

Employment prospects

Computer science graduates from Cambridge are highly sought after by employers. We aim to equip you with transferable skills so that you have the widest possible range of options and remain employable even when technology changes.

After graduation, all of our students find appropriate employment or proceed to further research in computer science. About half are directly employed by computing firms and a further fifth continue to academic research. The remaining students either set up their own companies, or find graduate jobs in other disciplines.

More than just a degree

The city of Cambridge combines a world-class university with a historic market town, making it a vibrant city in which to study. Your college will be your home while in Cambridge, and each offers a distinctive community. There are ample opportunities to become involved in activities beyond your studies including the arts and sport at all levels. You will find that there are also a range of social events, helping you to meet a range of your fellow students.

Did you know?

- The University has an excellent academic reputation, retaining the top position in the latest Guardian, Times and Complete University guides. We also score highly for student satisfaction.

- You are taught by those leading current research in computer science, and have the opportunity to work with the latest technology during the course. Lectures are supplemented with supervisions in small groups to discuss your work and help your understanding.

- The Computer Laboratory enjoys strong links with local high-tech companies. Several of these support our annual careers' fair where many graduates find employment, and there are many opportunities for summer internships during the course. You can often stay in college over the summer at a reduced rate.

- We host a range of events connected with the department's active research programme, such as the weekly seminars given by academic staff and distinguished visiting lecturers.

- The Computer Laboratory houses a range of facilities to support your learning, including the Intel Lab, a well stocked library and social areas. These are backed up with an extensive range of facilities for academic work and recreation within the University.

Course structure

Our course is designed to reflect the nature of modern computer science, giving you a thorough grounding in core topics, while allowing you to develop those areas which interest you most. The example pathways (available separately) show how the course has inspired a range of typical students.

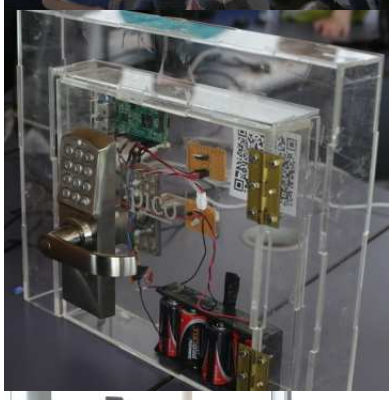
First year (Part IA)
The main entry route to the Computer Science Tripos is through Part IA 75% option. You will study a range of computer science courses covering the foundations of the subject, along with the mathematics course from the Natural Sciences tripos:

Computer Science
Comprising the first three papers of the Computer Science Tripos.

Mathematics
The Mathematics for Natural Sciences paper.

Computer Science Tripos
This leads naturally to the second and third years of the CST.

Additionally a range of newly introduced courses show the applications of computer science, leading into a broad selection of modern topics thereafter:



Second year (Part IB)
In the second year, Part IB, you continue to study computer science, with a range of courses covering the whole subject in the areas of theory, systems, programming and applications. You also work on a group project reflecting current industrial practice, giving you the opportunity to work with leading-edge technology, and meet people from local industry.

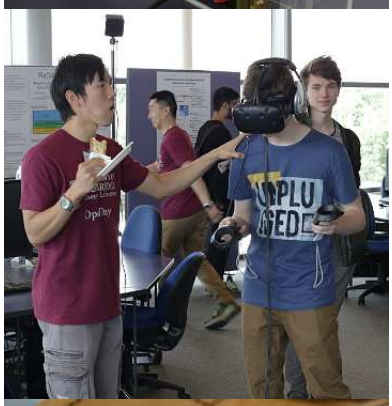
A selection of current Part IB courses:

Theory
Including: Complexity, Logic, Mathematical methods, Semantics.

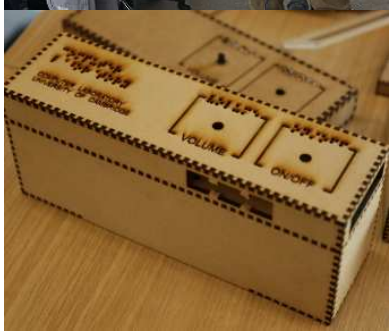
Systems
Including: Hardware, Networks, Concurrency.

Programming
Including: Programming in C, Java, Compiler design, Prolog, Concepts in programming languages.

Applications
Including: Artificial intelligence, Data science, Human-computer interaction, Natural language processing.



Third year (Part II)
In the third year there is a wide range of optional courses to choose from. You are entirely free to concentrate on on the topics of your choice, such as computer architecture, applications (including bioinformatics and natural language processing), or theory. New courses inspired by current research interests include topics such as computer music, data science and robotics. You will also work on a substantial individual project, again based around current research.



Fourth year (Part III)
Those students achieving a good mark in their third year exams can optionally continue to the fourth year (you don't need to decide at the time of application). Those graduating after completing the fourth year will be awarded the M.Eng. degree in addition to the usual B.A. The fourth year is aimed at students considering a career in research and gives you the opportunity to engage with topical and advanced issues in computer science.

Admissions

Academic standards are high, and most offers will typically require two A* and one A grade at Advanced Level. In all cases you will require A-Level mathematics or equivalent, while further mathematics or a physical science are highly desirable. A-level computer science is helpful if you have the opportunity to study it, but in most cases your mathematical ability is far more important. Other science subjects are often useful if you have them.

The admissions process is handled primarily by the colleges, so you will need to consider which one you wish to apply to before you complete your UCAS form. Choosing a college is a personal decision, and you should consider a range of factors such as the admissions criteria (these can vary slightly), and the facilities that individual colleges can offer. The University's website (http://www.undergraduate.study.cam.ac.uk) can offer general information on admissions, and advice on choosing a college.

When making an application you will usually need to submit your UCAS form by mid October, which is earlier than at most universities. After submitting your form, you will be asked to complete the Supplementary Application Questionnaire. If you have a realistic chance of being offered a place, you will be asked to attend an interview. These usually take place in the first three weeks of December. At the same time you will need to sit the Computer Science Admissions Test (CSAT).

Admissions decisions are made solely on academic criteria. The purpose of interviews is to explore your academic potential, motivation, and suitability for your chosen course. Interview questions are designed to assess your problem solving skills, ability to assimilate new ideas, and analytical reasoning. The CSAT is intended to give you an additional chance to show us your strength. It gives an indication of your mathematical and problem solving skills. You can choose which questions you answer, so that you can concentrate on the topics which interest you in your strongest areas.

For more information on the undergraduate course, and on applying please visit:
http://www.cst.cam.ac.uk/admissions/

You can contact us at:
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