

Lectures Proposed by the Board of the Faculty of Computer Science and Technology

For particulars of the University Composition Fee and of the fees payable for attendance at separate courses of lectures see p. 2. Graduates of the University who are not reading for any University examination may attend without payment any lecture proposed by the Faculty Board.

COMPUTER SCIENCE TRIPOS

MICHAELMAS 2010

LENT 2011

EASTER 2011

PART IA

Year 1 Coordinator: Dr M. G. Kuhn (email Markus.Kuhn@cl.cam.ac.uk)

Lectures will be delivered in *Arts School Room A, Bene't Street*, unless otherwise stated

Candidates taking Part IA of the Computer Science Tripos under Regulation 10(a) are also required to offer Papers 1 and 2 set for Part IA of the Mathematical Tripos.

Candidates taking Part IA of the Computer Science Tripos under Regulation 10(b) are also required to offer the papers set for the subject Mathematics in Part IA of the Natural Sciences Tripos and *either* Paper 3 set for Part I the Politics, Psychology and Sociology Tripos *or* the papers, Evolution and Behaviour, Physics, and Physiology of Organisms.

DR M. G. KUHN, DR F. H. KING AND MISS C. H. NORTHEAST
Registration. Th. 11 (One lecture) *or* Th. 12 (One
lecture, for those unable to attend at 11)

DR S. M. HAND
Computer Fundamentals. M. W. F. 10 (Six lectures)

DR M. O. MYREEN
Foundations of Computer Science. M. W. F. 10 (Fifteen
lectures, beginning 22 Oct.)

DR S. STATON
Discrete Mathematics I. M. W. F. 10 (Three lectures,
beginning 26 Nov.)

DR I. J. WASSELL
Digital Electronics. M. W. F. 12 (Eleven lectures)
Hopkinson Lecture Room

DR S. M. HAND
Operating Systems. M. W. F. 12 (Thirteen lectures,
beginning 3 Nov.) *Hopkinson Lecture Room*

DR S. STATON
Discrete Mathematics I continued. M. W. F.
10 (Six lectures)

DR R. K. HARLE
Object-Oriented Programming. M. W. F. 10
(Nine lectures, beginning 4 Feb.)

DR D. J. GREAVES
Floating-Point Computation. M. W. F. 10
(Six lectures, beginning 25 Feb.)

DR R. J. GIBBENS
Probability. M. W. F. 12 (Six lectures)
Hopkinson Lecture Room

PROF. G. WINSKEL
Discrete Mathematics II. M. W. F. 12 (Twelve
lectures, beginning 4 Feb.) *Hopkinson
Lecture Room*

DR A. F. BLACKWELL
Software Design. M. W. F. 12 (Six lectures,
beginning 4 Mar.) *Hopkinson Lecture
Room*

DR F. M. STAJANO
Algorithms I. M. W. F. 10

DR M. P. FIORE
Regular Languages and Finite Automata.
M. W. F. 12 (Six lectures) *Hopkinson
Lecture Room*

DR F. H. KING
Examination Briefing. M. 12 (One lecture,
23 May) *Hopkinson Lecture Room*

DR A. R. BERESFORD
Further Java Briefing. W. 12 (One lecture,
25 May) *Hopkinson Lecture Room*

Practical work takes place on Thursdays at 10.30–1 and 2–6, starting at 2pm on 7 October in *Lecture Theatre 1, William Gates Building*.

The first session will begin with an Introduction to Computer Science from Professor A. Hopper, Head of Department.

During the afternoon of 7 October, students will be registered for their practical classes, and detailed arrangements for the rest of the year will be explained.

The above timetable means that it is essential *not* to arrange Supervisions, Natural Sciences Tripos practical classes, or any other activities, on Thursday afternoons.

¹ It is particularly important that students register for the practical classes for their appropriate Natural Sciences bench subject.

Computer Science and Technology (continued)**COMPUTER SCIENCE TRIPOS, PART 1B**

MICHAELMAS 2010

LENT 2011

EASTER 2011

Year 2 Coordinator: Dr A. F. Blackwell (email Alan.Blackwell@cl.cam.ac.uk)

Lectures will be delivered in *Lecture Theatre 1, William Gates Building*, unless otherwise stated

DR M. G. KUHN
Unix Tools. Tu. Th. 10 (Ten lectures)

DR B. N. SHAND
Concurrent and Distributed Systems. M. W. F. 10
(Eight lectures)

DR D. M. EYERS
Prolog. M. W. F. 10 (Three lectures, beginning 29 Oct.),
Tu. Th. 10 (Three lectures, beginning 11 Nov.)

DR S. B. HOLDEN
Artificial Intelligence I. M. W. F. 10 (Twelve lectures,
beginning 5 Nov.)

PROF. R. J. ANDERSON
Software Engineering. Tu. Th. 11 (Six lectures)

DR A. W. MOORE
Programming in C and C++. M. W. F. 11 (Eight
lectures)

DR R. J. GIBBENS
Mathematical Methods for Computer Science.
M. W. F. 11 (Twelve lectures, beginning 27 Oct.)

DR F. M. STAJANO
Algorithms II. Tu. Th. 11 (Ten lectures, beginning
28 Oct.)

MR A. R. COBLE
Logic and Proof. Tu. Th. 12 (Twelve lectures)

DR S. W. MOORE
Computer Design. M. W. F. 12 (Eighteen lectures)

DR A. F. BLACKWELL
Group Project Briefing. Th. 12 (One lecture, 18 Nov.)

Practical work and afternoon classes

DR S. W. MOORE AND DR R. D. MULLINS
ECAD (on-line learning component). Tu. or F. 2-5
(One class, 8 Oct. or 12 Oct.) *Intel Laboratory*

ECAD and Architecture Laboratory. Tu. or F. 2-5
(Seven classes, beginning 15 Oct. or 19 Oct.) *Intel
Laboratory*

DR A. R. BERESFORD AND DR A. C. RICE
Further Java. M. 2-4 or 4-6 (Five classes, beginning
1 Nov.) *Intel Laboratory*

DR A. W. MOORE
Computer Networking. M. W. F. 10

DR M. G. KUHN
Security I. Tu. Th. 11 (Twelve lectures)

PROF. A. DAWAR
Computation Theory. M. W. F. 11 (Twelve
lectures)

DR S. STATON
Semantics of Programming
Languages. M. W. F. 11 (Twelve
lectures, beginning 18 Feb.)

PROF. N. A. DODGSON AND PROF. P. ROBINSON
Computer Graphics and Image Processing.
Tu. Th. 12

DR T. G. GRIFFIN
Compiler Construction. M. W. F. 12 (Sixteen
lectures)

DR D. EVANS
Concurrent and Distributed Systems
continued. M. W. F. 12 (Eight lectures,
beginning 28 Feb.)

DR D. J. GREAVES
Project Briefing I. Tu. 10 (One lecture,
24 May)

DR M. P. FIORE
Concepts in Programming Languages.
Tu. Th. 11

DR T. G. GRIFFIN
Databases. M. W. F. 11

MR J. A. LANG AND MR N. D. F. BOHM
Economics and Law. Tu. Th. 12

PROF. A. DAWAR
Complexity Theory. M. W. F. 12

DR A. F. BLACKWELL
Group Project Inaugural Meeting. Th. 2
(One class)

DR A. R. BERESFORD AND DR A. C. RICE
Further Java. M. 2-4 or 4-6 (One class) *Intel
Laboratory*

DR A. F. BLACKWELL AND OTHERS
Group Project Syndicate Meetings. W. or
Th. or F. 2 or 3 or 4 or 5 (Three
fortnightly meetings of one hour,
beginning 2 or 3 or 4 Feb.) *William Gates
Building, various rooms*

Group Project Work. M. Tu. W. F. 2-4 *Intel
Laboratory*

DR A. F. BLACKWELL
How (not) to give a Presentation. Tu. 2 (One
lecture, 8 Feb.)

DR A. F. BLACKWELL AND OTHERS
Group Project Demonstrations. W. 2-4 (One
session, 9 Mar.) *Intel Laboratory*

Group Project Presentations. W. 4.15 (One
session, 9 Mar.)

Computer Science and Technology (continued)**COMPUTER SCIENCE TRIPOS, PART II**

MICHAELMAS 2010

LENT 2011

EASTER 2011

Year 3 Coordinator: Dr D. J. Greaves (email David.Greaves@cl.cam.ac.uk)

Lectures will be delivered in *Lecture Theatre 2, William Gates Building*, unless otherwise stated

DR D. J. GREAVES

Project Briefing II. Th. 10 (One lecture)

DR C. URBAN

Types. M. W. F. 10 (Eight lectures)

DR M. P. FIORE

Denotational Semantics. Tu. Th. 10 (Twelve lectures, beginning 12 Oct.)

DR A. F. BLACKWELL

Human–Computer Interaction. Tu. Th. 11 (Eight lectures)

DR A. A. COPESTAKE

Natural Language Processing. M. W. F. 11 (Eight lectures)

PROF. R. J. ANDERSON

Security II. M. W. F. 11 (Sixteen lectures, beginning 27 Oct.)

DR S. H. TEUFEL

Information Retrieval. Tu. Th. 11 (Eight lectures, beginning 4 Nov.)

PROF. A. MYCROFT

Optimising Compilers. Tu. Th. 12

PROF. J. A. CROWCROFT

Principles of Communication. M. W. F. 12

DR S. B. HOLDEN

Artificial Intelligence II. Tu. Th. 10

MR J. A. LANG

Business Studies. M. W. F. 10 (Eight lectures)

PROF. N. A. DODGSON

How to Write a Dissertation. W. 10 (One lecture, 16 Feb.)

DR M. G. KUHN

Digital Signal Processing. M. W. F. 10 (Twelve lectures, beginning 18 Feb.)

DR R. D. MULLINS

Comparative Architectures. Tu. Th. 11

DR C. P. TOWN

Computer Vision. M. W. F. 11 (Twelve lectures)

DR R. J. GIBBENS AND DR C. K. CHAU

Computer Systems Modelling. M. W. F. 11 (Twelve lectures, beginning 18 Feb.)

PROF. M. J. C. GORDON

Hoare Logic. Tu. Th. 12 (Eight lectures)

DR C. MASCOLO

Mobile and Sensor Systems. W. F. 12 (Eight lectures)

PROF. N. A. DODGSON AND DR P. A. BENTON

Advanced Graphics. M. 12 (Two lectures, beginning 7 Feb.), M. W. F. 12 (Six lectures, beginning 18 Feb.), M. W. 12 (Four lectures)

MR J. A. LANG AND OTHERS

E-Commerce. Tu. Th. 12 (Eight lectures, beginning 17 Feb.)

Afternoon classes

STAFF

Progress Reports. Th. or F. or M. or Tu. 2 (One session, 10 or 11 or 14 or 15 Feb.)
William Gates Building, various rooms

PROF. G. WINSKEL

Topics in Concurrency. M. W. F. 10

MR J. A. LANG AND OTHERS

Business Studies Seminars. Tu. Th. 11

DR D. J. GREAVES

System-on-Chip Design. M. W. F. 11

PROF. M. J. C. GORDON

Temporal Logic and Model Checking. Tu. Th. 12

PROF. A. HOPPER AND OTHERS

Topical Issues. M. W. F. 12

Computer Science and Technology (continued)**M.PHIL IN. ADVANCED COMPUTER SCIENCE**

Contact: Ms L. M. Gough (email: lmg30@cl.cam.ac.uk)

Most lectures take place in *SW01* and *SS03* and practical classes in *SW02* and the *Intel Teaching Laboratory, William Gates Building*.**MICHAELMAS 2010****LENT 2011****EASTER 2011**

<p>Course Director: DR S. M. HAND</p> <p>DR T. FORSTER Introductory Logic M. 4 (weeks 5, 6) Th. 4 (weeks 5–8)</p> <p>DR S. M. HAND Advanced Topics in Computer Science Tu. 10–12</p> <p>DR T. G. GRIFFIN An Algebraic Approach to Internet Routing M. W. 11</p> <p>DR M. G. KUHN Forensic Signal Analysis F. 2–4</p> <p>DR I. J. WASSELL Low Power Embedded Systems F. 9–11</p> <p>DR M. FIORE Category Theory for Computer Science W. F. 12 Denotational Semantics Th. 10 (weeks 1–6) <i>LT2</i></p> <p>PROF. N. A. DODGSON Research Skills M. W. 9 (weeks 1–3) 9–11 (weeks 4–8)</p> <p>DR P. M. SEWELL Multiprocessor programming M. 2–4</p> <p>DR R. D. MULLINS Chip Multiprocessors Reading Club Th. 10–12</p> <p>PROF. G. WINSKEL Set Theory for Computer Science M. 4–6 (weeks 1–4)</p> <p>DR A. W. MOORE Building an Internet Router Tu. Th. 2–4</p> <p>PROF. P. ROBINSON Innovative User Interfaces Reading Group Tu. 4–6</p> <p>PROF. J. A. CROWCROFT Network Architecture Tu. Th. 12</p> <p>DR A. A. COPESTAKE AND OTHERS Introduction to Natural Language Processing Tu. Th. 2</p> <p>DR M. J. F. GALES AND OTHERS Spoken Language Processing Tu. F. 12</p> <p>DR A. C. RICE Programming for Mobiles W. 3.30–4.30 Programming for Mobiles Practical W. 4.30–5.30</p> <p>VARIOUS Research students' lectures F. 4 Wednesday Seminar series W. 2</p> <p>DR S. M. HAND Project Briefing M. 10 (One lecture)</p>	<p>DR T. FORSTER Introductory Logic (continued) W. 4 (weeks 3, 4)</p> <p>PROF. A. DAWAR Topics in Logic and Complexity Tu. Th. 4</p> <p>DR M. FIORE Advanced Category Theory M. 10, Th. 11 (weeks 5–8)</p> <p>DR S. W. MOORE Advanced Computer Design M. 2–5</p> <p>PROF. M. J. C. GORDON Programming Logics and Software Verification Tu. Th. 5</p> <p>DR S. STATON Categorical Logic F. W. 12</p> <p>DR D. J. GREAVES System on Chip Design Tu. F. 2–4</p> <p>DR R. GIBBENS Flows in Networks Tu. Th. 10</p> <p>DR C. MASCOLO Social and Technological Network Analysis Th. 11, M. 10</p> <p>DR S. CLARK AND DR A. DE GISPERT Statistical Machine Translation Tu. Th. 12</p> <p>DR A. A. COPESTAKE Deep Language Processing Seminar F. 2–4</p> <p>DR E. YONEKI Data Centric Networking Th. 2–4</p> <p>DR S. TEUFEL Lexical Semantics and Discourse Processing W. F. 10</p> <p>PROF. E. J. BRISCOE AND DR M. J. F. GALES Machine Learning for Language Processing M. W. 9</p> <p>PROF. E. J. BRISCOE AND DR S. CLARK Syntax and Semantics of Natural Language Processing Tu. F. 11</p> <p>PROF. P. C. WOODLAND, DR P. TAYLOR AND MR B. R. M. THOMSON Advanced Speech Technology M. W. 11</p> <p>VARIOUS Research students' lectures F. 4 Wednesday Seminar series W. 2</p>	<p>PROF. G. WINSKEL Advanced Topics in Concurrency Th. 2–4 (weeks 1–4)</p> <p>PROF. A. MYCROFT AND DR V. P. KHEDKER Advanced Data Flow Analysis Tu. Th. 11–1 (weeks 1–3)</p> <p>PROF. M. J. C. GORDON AND DR T. WEBER Interactive Formal Verification M. W. F. 10 (weeks 1–4) Interactive Formal Verification Practical F. 2</p> <p>DR A. F. BLACKWELL Usability of Programming Languages M. W. F. 11 (weeks 1, 2) Usability of Programming Languages Seminars M. W. 11–1 (weeks 2, 5) Usability of Programming Languages Practical M. 2–4 (Weeks 2–5)</p> <p>VARIOUS Research students' lectures F. 4 Wednesday Seminar series W. 2</p>
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Further details and timetable amendments will be published on the course web pages <http://www.cl.cam.ac.uk/teaching/>.