

NATURAL SCIENCES TRIPOS, PART III (continued)

MICHAELMAS 2001

LENT 2002

EASTER 2002

MATERIALS SCIENCE AND METALLURGY (continued)

Management Option

(Details to be announced)

Management Option

(Details to be announced)

Language OptionTwo hours per week: M. 4–6 or Tu. 4–6 or W. 2–4 or
Th. 2–4 or Th. 4–6 or F. 2–4**Language Option**

The same continued.

M. PHILS. (one-year courses), DIPLOMAS AND SPECIAL COURSES

CHEMISTRY

Advanced courses (mainly for Research Students and others interested)

STAFF OF THE CHEMICAL LABORATORY

Research Techniques in Organic Chemistry. W. 9
(starting 11 Oct.)

STAFF OF IRC IN SUPERCONDUCTIVITY

Classical and High Temperature Superconductivity.
Th. 11 (Eight lectures) *IRC Seminar Room*A short course on Workshop practice is also offered to
new Physical Chemistry graduate students early in
the Michaelmas Term

QUANTITATIVE MODELLING

Industrial Processes in the Natural Resource Sector to be held at the B.P. Institute

PROF. A. WOODS

Modelling Industrial and Environmental Flows. Tu.
Th. 9–11 *Seminar Room*

DR S. FITZGERALD AND OTHERS

Essential Business Skills for Scientists and Engineers
Lectures. Th. F. 11 *Lecture Room*
Seminars. Th. 4.30 *Lecture Room*

The same continued.

EARTH SCIENCES

REGULAR SEMINARS

PROF. E. SALJE AND OTHERS

Topics in Geological Sciences. Tu. 5 *Harker Room*

PROF. D. P. MCKENZIE AND OTHERS

Colloquium in Geophysics. W. 4.30 *Bullard
Laboratories*

PROF. H. E. HUPPERT AND OTHERS

Seminars in Theoretical Geophysics. Th. 2 *DAMTP
Room A*

PROF. N. J. SHACKLETON AND OTHERS

Quarternary Discussion Group, Alternate F.
F. 8.30 p.m. *Clare Hall*

The same continued.

The same continued.

The same continued.

The same continued.

The same continued.

The same continued.

GRADUATE COURSES

THE STAFF OF THE ELECTRON PROBE LABORATORIES

Physical Techniques (by arrangement)

DR J. A. HUDSON [Math]

Waves in Solid Media. M. W. F. 12

OTHER COURSES

PROF. D. P. MCKENZIE AND DR K. PRIESTLEY

Physics of the Earth as a Planet. M. W. F. 10
Cavendish Laboratory

STAFF OF THE IRC IN SUPERCONDUCTIVITY

Classical and High Temperature Superconductivity.
Th. 11 (Eight lectures) *IRC Seminar Room*

DR J. HAINES

Field Course in Geophysics¹¹ Graduates wishing to take the Field Course should write to Dr Haines at *the Bullard Laboratories* early in October 2001. It may be necessary to limit numbers.

M. PHILS. (one-year courses), DIPLOMAS AND SPECIAL COURSES (continued)

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HISTORY AND PHILOSOPHY OF SCIENCE*Seminars and Reading Groups for Research Students in History and Philosophy of Science*

Prof. P. Lipton and Dr J. Forrester will meet all postgraduate students at 10 a.m. on Tuesday 2 October in *Seminar Room 2* to discuss the course and arrange supervision.

Unless otherwise stated all meetings will be held in *the History and Philosophy of Science Seminar Rooms, Free School Lane.*

Seminar Programmes can be obtained at the start of each term from the Department Office or from the website <http://www.hps.cam.ac.uk/>

Research Methods and Resources. Th. 4 (4, 6, 11 Oct.) For all M.Phil. and Ph.D. students		
History and Philosophy of Science Seminar. Th. 4.30 (from 18 Oct.)	The same continued. Th. 4.30	The same continued. Th. 4.30
M.Phil. Seminar in History and Philosophy of Science and Medicine. Tu. 2	The same continued. Tu. 2	The same continued. Tu. 2
Psy Studies. W. 5 (fortnightly, from week 1)	The same continued. W. 5	The same continued. W. 5
Psychoanalysis and the Humanities. W. 5 (fortnightly, from week 2)	The same continued. W. 5	The same continued. W. 5
Early Medicine and Natural Philosophy. Tu. 5 (fortnightly, from week 2)	The same continued. Tu. 5	
History of Modern Medicine and Biology. Tu. 5 (fortnightly, from week 1)	The same continued. Tu. 5	
Cabinet of Natural History. M. 1	The same continued. M. 1	The same continued. M. 1
History of Science workshop. W. 1 p.m. (fortnightly) <i>Darwin College Seminar Room</i>	The same continued. W. 1	The same continued. W. 1
Epistemology Reading Grouping. Th. 2	The same continued. Th. 2	The same continued. Th. 2
Medieval Sciences and Philosophy Reading. Tu. 1 <i>LI,</i> <i>Great Court, Trinity College</i>	The same continued. Tu. 1	The same continued. Tu. 1
Science and Literature Reading Group. Tu. 8 (fortnightly) <i>Darwin College</i>	The same continued. Tu. 8	The same continued. Tu. 8
Philosophy Reading Group. W. 2 (fortnightly)	The same continued. W. 1	The same continued. W. 1
Philosophy of Maths Reading Group. F. 2 (fortnightly)	The same continued. F. 2 (fortnightly)	
Early Physics, Astronomy, Cosmology and Technology Reading Group. W. 6	The same continued. W. 6	The same continued. W. 6

MATERIALS SCIENCE AND METALLURGY**COURSES FOR GRADUATES**

Course Co-ordinator: Dr R. E. M. Ward E-mail: remw2@msm.cam.ac.uk

Lectures will be given in *the Department of Materials Science and Metallurgy*

A detailed timetable is available in the Department.

STAFF OF THE DEPARTMENT	A. N. OTHER	
Techniques of Materials Research. M. Tu. W. Th. F. 2, 3 (Twenty-three lectures, beginning 4 Oct.)	Microprobe Analysis. M. W. F. 2 (Eight lectures)	
DR J. A. LITTLE	DR R. E. CAMERON	
Scanning Electron Microscopy. M. W. F. 2 (Eight lectures, beginning 22 Oct.)	X-ray and Neutron Diffraction Methods. Tu. Th. 2 (Seven lectures)	
DR W. O. SAXTON	PROF. C. J. HUMPHREYS	
Image Processing in Materials Science. Tu. Th. 2 (Four lectures, beginning 23 Oct.)	Advanced Transmission Electron Microscopy. Tu. Th. 2	
DR R. V. KUMAR AND DR G. C. CHEN	DR P. A. MIDGLEY	
Experimental Techniques in Chemical Metallurgy. Tu. Th. 2 (Eight lectures, beginning 6 Nov.)	Introduction to Transmission Electron Microscopy. Details to be announced (Eight lectures)	
DR Z. H. BARBER	PROF. W. BONFIELD, DR R. E. CAMERON AND DR S. M. BEST	
Film Deposition and Microfabrication Techniques. M. W. F. 2 (Six lectures, beginning 9 Nov.)	Introduction to Biomaterials (Four lectures) Details to be announced	
STAFF OF THE DEPARTMENT		
Entrepreneurship and exploitation of results. Details to be announced		

REGULAR SEMINARS

DR A. L. GREER AND OTHERS		
Materials Science and Metallurgy. M. 4.15	The same continued.	The same continued.

M.PHILS. (one-year courses), DIPLOMAS AND SPECIAL COURSES (continued)

MICHAELMAS 2001

LENT 2002

EASTER 2002

M.PHIL. IN MATERIALS MODELLING

Course Co-ordinator: Dr Z. H. Barker

Lectures will be given in *the Department of Materials Science and Metallurgy*

PROF. D. J. FRAY, PROF. H. K. D. H. BHADSHIA,
DR M. R. MANNING AND DR P. D. BRISTOWE
Introduction of Materials Sciences and General
Methodology (fourteen lectures)

DR P. D. BRISTOWE, DR M. PAYNE AND DR C. J. PICKARD
Ab initio Methods and Approximations (Twelve lectures)

DR J. A. ELLIOTT
Monte Carlo and Molecular Dynamics Methods (Twelve
lectures)

PROF. D. J. FRAY, PROF. H. K. D. H. BHADSHIA AND
DR R. V. KUMAR
Thermodynamics and Phase Diagrams (Twelve lectures)

DR G. GOLDBECK-WOOD
Mesoscale and Multiscale Modelling (Seven lectures)

DR A. L. GREER, PROF. H. K. D. H. BHADSHIA AND
DR R. C. REED
Kinetics and Microstructure Modelling (Twenty
lectures)

DR S. M. ROBERTS AND DR H. SHERCLIFFE
Process Modelling, Part I (Six lectures)

PROF. H. K. D. H. BHADSHIA AND
PROF. T. W. CLYNE
Process Modelling II (Eleven lectures)

DR R. C. REED AND PROF. T. W. CLYNE
Structure – Property Relationships (Twelve
lectures)

M.PHIL. IN MICROELECTRONIC ENGINEERING AND SEMICONDUCTOR PHYSICSLectures are given either in *the Microelectronics Seminar Room, Cavendish Laboratory*, or at *the Department of Engineering*

PROF. M. E. WELLAND
Physics of semiconductors (Six lectures)

DR Z. A. K. DURRANI
Semiconductor device physics (Ten lectures)

PROF. H. AHMED
Semiconductor memory and logic
(Four lectures)

DR D. G. HASKO
Semiconductor processing (Six lectures)

DR J. R. A. CLEAVER
Lithography (Six lectures)

DR E. MUNRO
Electron optics for lithography (Six lectures)

PROF. M. E. WELLAND
Materials analysis for semiconductor devices
(Three lectures)

PROF. P. MIGLIORATO
Large-area devices and displays (Four lectures)

DR F. UDREA
Power microelectronics (Four lectures)

DR R. J. COLLIER
Millimetre-wave devices, circuits and measurements
(Four lectures)

A. N. OTHER
Optoelectronics (Six lectures)

PROF. W. I. MILNE
Amorphous semiconductors and their
applications (Four lectures)

DR C. R. LOWE
Bioelectronics (Three lectures)

A detailed teaching programme, with information about the laboratory courses, may be obtained from Dr J. R. A. Cleaver at the *Department of Physics*.

M. PHILS. (one-year courses), DIPLOMAS AND SPECIAL COURSES (continued)

MICHAELMAS 2001

LENT 2002

EASTER 2002

PHYSICS

COURSES FOR GRADUATES

Courses recommended for Research Students in Solid State Physics

Lectures are given in the TCM Seminar Room or the Mott Seminar Room (M), Mott Building unless otherwise stated

STAFF OF THE MOTT BUILDING (M) Solid State Physics. M. W. F. 9 DR A. L. BLELOCH AND OTHERS (M) Principles of Electron Microscopy and Diffraction. Tu. Th. 12 (additional practicals at times to be arranged) PROF. D. E. KHMELNITSKII Condensed Matter Physics. Tu. Th. 10 (Twelve lectures, beginning 9 Oct.) Special Topics in Theoretical Physics. F. 10 (Six lectures, beginning 5 Oct.) DR Y. MAO Statistical Physics I: Soft Condensed Matter. M. W. 10 (Eight lectures, beginning 8 Oct.) DR M. DODGSON Statistical Physics II: Phase Transitions. M. W. 10 (Eight lectures, beginning 5 Nov.)	The same continued. (M) The same continued. (M) PROF. D. E. KHMELNITSKII Path Integrals. Th. 10 (Eight lectures, beginning 17 Jan.) DR C. MOLTENI Electronic Structure Methods. M. W. 10 (Six lectures, beginning 16 Jan.) DR D. TARAS-SEMCHUK Field Theory in Condensed Matter Physics. M. W. 10 (Eight lectures, beginning 6 Feb.)	The same continued. (M)
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Courses recommended for Research Students in Astrophysics

See Graduate Lectures in Astronomy and Astrophysics (p. 211)

Courses recommended for Research Students in High Energy Physics

DR J. R. CARTER AND OTHERS Selected Topics in Elementary Particle Physics. Tu. Th. 9.30 HEP Seminar Room	The same continued.	The same continued.
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REGULAR SEMINARS

All seminars continued in the Lent and Easter Terms

Principal Seminar DR J. A. C. BLAND AND OTHERS Cavendish Physical Society. W. 4.30 Research Group Seminars DR S. R. JULIAN AND OTHERS Low Temperature Physics. W. 11.15 PROF. A. N. LASENBY AND OTHERS Astrophysics. Tu. 4.30 DR J. R. CARTER AND OTHERS High Energy Physics. Tu. 3 PROF. M. PEPPER AND OTHERS Semiconductor Physics. M. 2.15 DR A. L. BLELOCH AND DR J. ELLIS MP/PCS Seminars in Microstructural Physics. W. 2.30 PROF. J. E. FIELD AND OTHERS PCS (Materials). Th. 4.30 PROF. A. M. DONALD AND OTHERS Polymer and Colloid Physics. F. 2.15 PROF. R. H. FRIEND AND OTHERS Molecules and Opto-Electronics. Tu. 2.15 PROF. P. LITTLEWOOD AND OTHERS Theory of Condensed Matter. Th. 2.15
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