

NATURAL SCIENCES TRIPOS, PART III (continued)

MICHAELMAS 2000

LENT 2001

EASTER 2001

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

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

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

The same continued

The same continued

The same continued
Earth Sciences, Harker II Room

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 2000. It may be necessary to limit numbers.

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

MICHAELMAS 2000

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EASTER 2001

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 3 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 (5, 12 Oct.). For all MPhil and PhD students		
History and Philosophy of Science Seminar. Th. 4.30 (from 17 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 2)	The same continued. W. 5	The same continued. W. 5
Psychoanalysis and the Humanities. W. 5 (fortnightly, from week 1)	The same continued. W. 5	The same continued. W. 5
Early Medicine and Natural Philosophy. Tu. 5 (fortnightly, from 17 Oct.)	The same continued. Tu. 5	
History of Modern Medicine and Biology. Tu. 5 (fortnightly, from 10 Oct.)	The same continued. Tu. 5	
Cabinet of Natural History. M. 1	The same continued. M. 1	The same continued. M. 1
Historiography Seminar. W. 8 p.m. (fortnightly) <i>Darwin College Seminar Room</i>	The same continued. W. 8	The same continued. W. 8
Epistemology Reading Grouping. Th. 2	The same continued. Th. 2	The same continued. Th. 2
Medieval Sciences Reading Group. Tu. 1 <i>LI, Great Court, Trinity College</i>	The same continued. Tu. 1	The same continued. Tu. 1
Evolution Reading Group. Tu. 8 (fortnightly) <i>Darwin College</i>	The same continued. Tu. 8	The same continued. Tu. 8
Philosophy of Physics Reading Group. F. 2 (fortnightly)	The same continued. F. 2	The same continued. F. 2

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

Techniques of Materials Research. M. Tu. W. Th. F. 2, 3 (Nineteen lectures, beginning 5 Oct.)
DR J. A. LITTLE Scanning Electron Microscopy. M. W. F. 2 (Eight lectures, beginning 23 Oct.)
DR W. O. SAXTON Image Processing in Materials Science. Tu. Th. 2 (Four lectures, beginning 24 Oct.)
PROF. D. J. FRAY AND DR R. V. KUMAR Experimental Techniques in Chemical Metallurgy. Tu. Th. 2 (Eight lectures, beginning 7 Nov.)
DR Z. H. BARBER Film Deposition and Microfabrication Techniques. M. W. F. 2 (Six lectures, beginning 10 Nov.)

DR C. B. BOOTHROYD Microprobe Analysis. M. W. F. 2 (Eight lectures)
DR R. E. CAMERON X-ray and Neutron Diffraction Methods. Tu. Th. 2 (Six lectures)
PROF. C. J. HUMPHREYS Advanced Transmission Electron Microscopy. Tu. Th. 2
DR P. A. MIDGLEY Introduction to Transmission Electron Microscopy. Details to be announced (Eight lectures)
PROF. W. BONFIELD, DR R. E. CAMERON AND DR S. M. BEST Introduction to Biomaterials (Eight lectures) 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
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M. PHILS. (one-year courses), DIPLOMAS AND SPECIAL COURSES (continued)

MICHAELMAS 2000

LENT 2001

EASTER 2001

M. PHIL. IN MATERIALS MODELLING

Course Co-ordinator: Dr Z. H. Barber

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

PROF. A. H. WINDLE

Introduction to Materials Science (Three lectures)

DR P. D. BRISTOWE AND OTHERS

General Methodology (Eleven lectures)

Ab initio Methods and Approximations (Twelve lectures)

DR J. ELLIOTT AND PROF. A. H. WINDLE

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 S. M. ROBERTS AND DR H. SHERCLIFF

Process Modelling, Part I (Six lectures)

DR A. L. GREER, DR R. C. REED AND

PROF. H. K. D. H. BHADSHIA

Kinetics and Microstructure Modelling
(Twenty lectures)

DR G. GOLDBECK-WOOD AND

PROF. H. K. D. H. BHADSHIA

Mesoscale and Multiscale Modelling
(Seven lectures)

DR D. M. KNOWLES AND PROF. T. W. CLYNE

Structure-Property Relationships
(Twenty lectures)

STAFF OF THE DEPARTMENT

Process Modelling, Part 2 (Forteen 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*

DR Z. A. K. DURRANI

Semiconductor device physics (Ten lectures)

PROF. M. E. WELLAND

Physics of semiconductors (Six 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 D. M. HOLBURN

Devices, circuits and modelling (Five lectures)

DR C. G. SMITH

Quantum transport in semiconductor device
physics (Four lectures)

DR R. J. MEARS

Optoelectronics (Six lectures)

PROF. W. I. MILNE

Amorphous semiconductors and their
applications (Four lectures)

DR C. R. LOWE

Bioelectronics (Four 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 2000

LENT 2001

EASTER 2001

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. KHELMNITSKII

Condensed Matter Theory. Tu. Th. 10
(Sixteen lectures)

Physical Kinetics. Tu. Th. 12 (Twelve lectures, beginning 5 Oct.)

Special Topics in Theoretical Physics. F. 10
(Six lectures, beginning 6 Oct.)

DR Y. MAO

Statistical Physics I: Soft Condensed Matter. M. W. 10
(Seven lectures, beginning 9 Oct.)

DR M. DODGSON

Statistical Physics II: Phase Transitions. M. W. 10
(Seven lectures, beginning 1 Nov.)

The same continued. (M)

The same continued. (M)

DR M. J. RUTTER

Computer Architecture: Software. Tu. Th. 10
(Four lectures, beginning 18 Jan.)

DR A. GREEN

Quantum Magnetism. Tu. Th. 10
(Eight lectures, beginning 1 Feb.)

DR B. D. SIMONS

Field Theory in Condensed Matter Physics.
Tu. Th. 10 (Four lectures, beginning 1 Mar.)

DR T. J. DUKE AND DR G. RAJAGOPAL

Biophysics. M. W. 10 (Six lectures, beginning 22 Jan.)

DR R. J. NEEDS

Electronic Structure Methods. M. W. 10
(Six lectures, beginning 12 Feb.)

The same continued. (M)

DR I. HOPKINSON AND OTHERS

Polymers and Colloids. M. 2-4 P and C
*Seminar Room**Courses recommended for Research Students in Astrophysics*

See Graduate Lectures in Astronomy and Astrophysics (p. 206)

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

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. R. E. HILLS 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

PROF. L. M. BROWN AND OTHERS

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

Molecular and Opto-Electronics. Tu. 2.15

DR D. A. CARDWELL AND OTHERS

Superconductivity. Th. 11

PROF. P. LITTLEWOOD AND OTHERS

Theory of Condensed Matter. Th. 2.15