

NATURAL SCIENCES TRIPOS, PART II

MICHAELMAS 2004

LENT 2005

EASTER 2005

ANATOMY OPTION A: RESEARCH IN DEVELOPMENTAL BIOLOGY AND NEUROSCIENCE

Course Organiser: Dr R. C. Hardie E-mail: rch14@hermes.cam.ac.uk

All teaching will be in the *Anatomy Part II Seminar Room, the Experimental Psychology Room or Room 78, Department of Anatomy*

Course units (Cu): Each unit comprises two 2½ hour and one 3 hour session

DR R. ADAMS AND DR R. C. HARDIE
General Introduction. Tu. 10–12 (5 Oct.)
Course Introduction. W. 10–12 (6 Oct.)

Research in Developmental Biology

PROF. J. HERBERT AND DR G. BURTON (Cu)
Experimental Approaches: Systems. (7, 8, 13 Oct.)

MRS P. HENDERSON
Working in Groups. 2–4 (11 Oct.)

DR R. WHITE AND DR S. JONES (Cu)
Experimental Approaches: Cells and Molecules. (14, 15, 20 Oct.)

DR R. ADAMS
Gastrulation. (21, 22, 27 Oct.)

Study Week (28 Oct. – 3 Nov.)

PROF. M. H. JOHNSON (Cu)
Making an Embryo. (4, 5, 10 Nov.)

DR C. BAKER AND DR N. PAPALOPULU (Cu)
Making a Neuron. (11, 12, 17 Nov.)

DR K. LEWIS AND DR D. TANNAHILL
Patterning the Nervous System. (18, 19, 24 Nov.)

DR G. M. W. COOK AND PROF. C. HOLT
Guiding Axons. (25, 26 Nov, 1 Dec.)

DR G. BURTON
Data Handling. (30 Nov.)

Research in Neuroscience

PROF. J. HERBERT AND DR G. BURTON (Cu)
Experimental Approaches: Systems. (7, 8, 13 Oct.)

MRS P. HENDERSON
Working in Groups. 2–4 (11 Oct.)

DR R. WHITE AND DR S. JONES (Cu)
Experimental Approaches: Cells and Molecules. (14, 15, 20 Oct.)

DR R. C. HARDIE AND DR R. ADAMS (Cu)
The Neuron. (21, 22, 27 Oct.)

Study Week. (28 Oct. – 3 Nov.)

DR S. EDGLEY, DR S. JONES (Cu)
Brain Organisation. (4, 5, 10 Nov.)

DR C. BAKER AND DR N. PAPALOPULU (Cu)
Making a Neuron. (11, 12, 17 Nov.)

DR K. LEWIS AND DR D. TANNAHILL (Cu)
Patterning the Nervous System. (18, 19, 24 Nov.)

DR G. M. W. COOK AND PROF. C. HOLT (Cu)
Guiding Axons. (25, 26 Nov., 1 Dec.)

DR G. BURTON
Data Handling. (30 Nov.)

DR C. BAKER (Cu)
Cell Migration and Fate. (20, 21, 26 Jan.)

DR A. PHILPOTT AND DR P. SCHOFIELD
Tissue Diversity. (27, 28 Jan., 2 Feb.)

DR N. J. BROWN AND DR A. BRAND (Cu)
Organogenesis and Morphogenesis. (3, 4, 9 Feb.)

DR R. WHITE (Cu)
Stem Cells. (10, 11, 16 Feb.)

DR R. DYBALL AND DR R. ADAMS
Project write-up. (15 Feb.)

Study Week. (17–23 Feb.)

DR A. FERGUSON-SMITH
Epigenetic Control of Development. (24, 25 Feb., 2 Mar.)

DR S. BRAY AND DR M. SPILLANTINI (Cu)
The Degenerating and Repair. (3, 4, 9 Mar.)

DR. A. WILKINS
Evolution and Development. (15, 16 Mar.)

DR R. C. HARDIE (Cu)
Phototransduction. (20, 21, 26 Jan.)

DR R. DYBALL AND DR S. EDGLEY (Cu)
Encoding Information in Neurons. (27, 28 Jan., 2 Feb.)

DR S. JONES (Cu)
Addiction. (3, 4, 9 Feb.)

DR W. SCHULTZ (Cu)
Frontal lobes. (10, 11, 16 Feb.)

DR R. DYBALL AND DR R. ADAMS
Project write-up. (15 Feb.)

Study Week (17–23 Feb.)

DR S. WALKER (Cu)
Neurochemical Modulation of Learning and Memory. (24, 25 Feb., 2 Mar.)

DR S. BRAY AND DR M. SPILLANTINI (Cu)
Brain Degeneration and Repair. (3, 4, 9 Mar.)

PROF. J. HERBERT
How the Brain Handles Stress (15, 16 Mar.)

Seminars As Announced in the Department

DR R. ADAMS
Critique of Papers. (27 Apr.)

DR R. ADAMS
Experimental Design. (4 May)

DR P. SCHOFIELD
Critique of Papers. (11 May)

DR C. BAKER
Experimental Design. (18 May)

DR S. JONES
Critique of Papers. (27 Apr.)

PROF. W. A. HARRIS
Experimental Design. (4 May)

DR R. C. HARDIE
Critique of Papers. (11 May)

DR R. C. HARDIE
Experimental Design. (18 May)

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2004

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ANATOMY OPTION B: HEALTH AND DISEASE: INTEGRATING SCIENCE AND SKILLS

Course Organiser: Dr A. Ferguson-Smith E-mail: afsmith@mole.bio.cam.ac.ukAll teaching will be in the *Anatomy Part II Seminar Room* unless otherwise stated

The course consists of a series of workshops, lectures, seminars and problem-solving skills sessions around a framework of three areas:

HIV and AIDS
 Neurobiology of Behaviour and Emotion
 Reproduction and Gender Science

Complete course information can be found at the Department of Anatomy's website: <http://www.anat.cam.ac.uk/anatomy/>**Workshops, Seminars and Journal Clubs** As announced in the Department, beginning 7 Oct.

ASTROPHYSICS

All lectures will be delivered in the *Raymond and Beverly Sackler Lecture Theatre, Hoyle Building, Institute of Astronomy* unless otherwise stated

DR I. R. PARRY
 Introductory Astrophysics Tu. Th. F. 11.15
 DR C. J. CLARKE
 Statistical Physics M. 11.15, Tu. Th. 10.00
 PROF. G. P. EFSTATHIOU
 Astrophysical Fluid Dynamics M. F. 9, W. 11.15
 DR N. W. EVANS
 Theory of Relativity M. W. F. 10

Computational Projects

DR N. NIKIFORAKIS AND OTHERS
 M. W. F. 2 (Six lectures) *MR 2*

PROF. R. F. CARSWELL
 Stellar Dynamics and Structure of Galaxies.
 M. F. 9, W. 11.15
 DR M. HAEHNELT
 Physical Cosmology M. 11.15, Tu. Th. 10
 DR C. D. MACKAY
 Topics in Contemporary Astrophysics. Tu.
 Th. F. 11.15
 DR P. C. HEWETT
 Structure and Evolution of Stars. M. W. F. 10

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2004

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BIOCHEMISTRY

Course Organiser: Prof. D. J. Ellar E-mail: dje1@mole.bio.cam.ac.uk

Lectures are given in the *Department of Biochemistry, Downing Site building*

The course starts with an introductory lecture by PROF. SIR TOM BLUNDELL at 9 a.m. on M. 4 October.

Core course lectures take place at 9 a.m. and 10.30 a.m. Option course lectures take place throughout the day in Lent Term. Detailed time-tables will be posted in the Department of Biochemistry.

Core lectures

- PROF. E. D. LAUE
Aspects of Protein Structure: Genome to Proteome. (Five lectures, beginning 4 Oct.)
- DR M. WELCH
Thermodynamics Refresher for Biochemists (One lecture, 8 Oct.)
- DR C. W. J. SMITH
Mechanisms and Control of Transcription in Eukaryotes. (Five lectures, beginning 11 Oct.)
- DR R. A. BRADSHAW
Signalling Pathways in Eukaryotic Cells. (Four lectures, beginning 11 Oct.)
- PROF. G. P. C. SALMOND
Bacterial Signalling Systems. (Four lectures, beginning 18 Oct.)
- DR D. M. CARRINGTON
DNA Recombination in Genetic Exchange and Gene Expression. (Four lectures, beginning 18 Oct.)
- DR P. DUPREE
Protein Targeting to the ER. (Three lectures, beginning 25 Oct.)
- DR K. MIZUGUCHI
Bioinformatics: Polypeptide Similarity, Families and Superfamilies. (Two lectures, beginning 25 Oct.)
- DR T. HUBBARD
Bioinformatics: Large Scale Sequencing Projects. (Two lectures, beginning 27 Oct.)
- DR F. HOLLFELDER
Chemistry Refresher for Biochemists. (One lecture, 28 Oct.)
- DR A. A. GRACE
Disease Genes: Function and Manipulation. (Three lectures, beginning 28 Oct.)
- DR V. RAMAKRISHNAN
Protein Synthesis and Translation Control. (Five lectures, beginning 1 Nov.)
- DR K. M. BRINDLE
Molecular Imaging. (Three lectures, beginning 3 Nov.)
- DR F. HOLLFELDER
Enzyme Structure and Function. (Five lectures, beginning 8 Nov.)
- DR J. DOWNS
Protein-DNA Interactions and Gene Expression. (Five lectures, beginning 8 Nov.)
- DR R. W. FARNDALE
Adhesive and Immune Receptor Signalling. (Four lectures, beginning 15 Nov.)
- DR A. P. JACKSON
Protein Sorting. (Six lectures, beginning 15 Nov.)
- DR J. A. H. MURRAY
Eukaryotic Chromosome Replication. (Three lectures, beginning 19 Nov.)
- DR S. E. JACKSON
Protein Folding *in vivo*. (Three lectures, beginning 24 Nov.)
- DR D. OWEN
G Protein-Based Signalling. (Three lectures, beginning 23 Nov.)
- PROF. T. L. BLUNDELL
G Protein-Based Signalling. (Two lectures, beginning 25 Nov.)
- DR G. C. BROWN
Bioenergetics of the Cell. (Five lectures, beginning 29 Nov.)
- DR A. M. TOLKOVSKY
Apoptosis, from Molecules to Function in Disease. (Three lectures, beginning 1 Dec.)

Data handling classes W. 2.30-4.00, 29 Oct., 4 Nov.

Option Lectures

1. PROF. G. P. C. SALMOND AND OTHERS
Option Organiser: Prof. G. P. C. Salmond
Bacterial Virulence and Antimicrobial Chemotherapy. (Fifteen lectures)
2. DR R. W. BROADHURST AND OTHERS
Option Organiser: Dr R. W. Broadhurst
Proteins, Nucleic Acids and Their Interactions. (Fifteen lectures)
3. DR M. D. BRAND AND OTHERS
Option Organiser: Dr M.D. Brand
Mitochondria and Bioenergetics. (Fifteen lectures)
4. DR P. DUPREE AND OTHERS
Option Organiser: Dr P. Dupree
Plant Cell and Molecular Biology. (Fifteen lectures)
5. PROF. R. J. JACKSON AND OTHERS
Option Organisers: Prof. R. J. Jackson and Dr T. Krude
Control of Gene Expression in Eukaryotes. (Fifteen lectures in part joint with Part II Zoology)
6. PROF. K. SIDDLER AND OTHERS
Option Organiser: Prof. K. Siddle
Medical Biochemistry. (Fifteen lectures)
7. DR F. HOLLFELDER AND OTHERS
Option Organiser: Dr F. Hollfelder
Enzyme Mechanisms and the Evolution of Enzyme Function. (Fifteen lectures)
8. DR A. A. GRACE AND OTHERS
Option Organiser: Dr A. A. Grace
Cardiovascular Molecular and Cellular Biology. (Fifteen lectures)
9. DR A. M. TOLKOVSKY AND OTHERS
Option Organisers: Dr A. M. Tolkovsky and Dr N. Affara
Oncogenes, Tumour Suppressor Genes and Carcinogenesis. (Fifteen lectures in part joint with Option E of Part II Pathology)
10. DR A. M. TOLKOVSKY AND OTHERS
Option Organiser: Dr A. M. Tolkovsky
Perspectives in Molecular Neurobiology. (Fifteen lectures)
11. DR N. J. GAY AND OTHERS
Option Organiser: Dr N. J. Gay
Biotechnology. (Fifteen lectures)
12. DR D. M. CARRINGTON AND OTHERS
Option Organiser: Dr D. M. Carrington
Regulation of the Eukaryotic Cell Cycle. (Fifteen lectures)
13. DR N. J. GAY AND OTHERS
Option Organiser: Dr N. J. Gay
Molecular Immunology. (Fifteen lectures)

Data handling classes W. 3.00-3.45, 21, 28 Jan.

NATURAL SCIENCES TRIPOS, PART II (continued)

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CHEMISTRY (OPTION A AND OPTION B)

Course Organiser: Dr J. H. Keeler E-mail: James.Keeler@ch.cam.ac.uk

All lectures will be given in the *Department of Chemistry, Lensfield Road*Students must register for the course in the *Department of Chemistry, Lensfield Road*, between 9 and 1 or 2 and 4 on Tu. 5 Oct.A booklet containing details of the times of the lecture courses will be given out on registration. Others interested in the lecture courses can obtain a copy of this booklet on application to the Course Organiser. This information is also available from the website, www-teach.ch.cam.ac.ukAll students must attend an introductory talk concerning the practical course at 12 noon on W. 6 Oct. in *Lecture Theatre 3*.

EXPERIMENTAL AND THEORETICAL PHYSICS

Course Organiser: Prof. M. Warner E-mail: II-physics@phy.cam.ac.uk

Students offering **Option A** must take the whole of **course H** in the Michaelmas Term and 2 of the lecture courses in the Lent and Easter Terms. They must in addition take **course K**, and a suitable selection from the material of **courses J** and **S**.Students offering **Option B** must take the whole of **course H** in the Michaelmas Term and either 3 or 4 of the lecture courses in the Lent and Easter Terms. In addition they must take a suitable selection from the material of **courses J** and **S**.The material of **course J** is examined at the start of the term following that in which each block, TP1 and TP2, is given.All students are recommended to attend the non-examinable **Course I**.The course will begin with a meeting on the first Wednesday of Full Term (6 Oct.) at 9.30 a.m. in the *Pippard Lecture Theatre*.Lectures are given at the *Cavendish Laboratory (West Cambridge)*, in the *Pippard Lecture Theatre* unless otherwise stated.**Course H**

PROF. R. J. NEEDS
Thermal and Statistical Physics. Tu. Th. 10

PROF. D. A. RITCHIE
Advanced Quantum Physics. M. W. F. 9

DR N. R. COOPER
Relativity, Electrodynamics and Light. M. W. F. 10
(First twenty lectures)

DR P. ALEXANDER AND OTHERS
Computational Physics. Tu. Th. 9 (First eight lectures)
Classes weekdays 2–5 (7 Oct. – 1 Dec.). Students attend
one day per week

Course I

PROF. P. B. LITTLEWOOD
Quantum Condensed Matter Physics. M. 10
W. 9

PROF. S. F. GULL AND PROF. A. N. LAZENBY
Astrophysics. Tu. F. 9

DR V. GIBSON
Particle and Nuclear Physics. W. F. 10

PROF. A. M. DONALD
Soft Condensed Matter and Biophysics.
M. Th. 9

PROF. P. B. LITTLEWOOD
The same continued. (First six lectures)

PROF. S. F. GULL AND PROF. A. N. LAZENBY
The same continued. (First six lectures)

DR V. GIBSON
The same continued. (First six lectures)

PROF. A. M. DONALD
The same continued. (First six lectures)

Course J

DR E. TERENTJEV AND DR C. H. W. BARNES
Theoretical Physics TP1. Tu. Th. 12–1 (Twelve lectures
beginning 12 Oct.); Tu. 2–4 (Four classes, 19 Oct., 2
Nov., 16 Nov., 30 Nov.)

PROF. M. S. LONGAIR
Concepts in Physics. Tu. Th. 10 (Ten lectures,
beginning Th. 10 Feb.)

THE STAFF OF THE CAVENDISH LABORATORY
Current Research Work in the Cavendish
Laboratory (not examinable). See Part III
Experimental and Theoretical Physics
(p. 206)

PROF. B. R. WEBBER AND DR N. R. COOPER
Theoretical Physics TP2. Tu. Th. 12–1
(Twelve lectures, beginning Tu. 25 Jan.);
Tu. 2–4 (Four classes, 1 Feb., 15 Feb.,
1 Mar., 15 Mar.)

Course K

PROF. J. A. C. BLAND AND DR J. R. BATLEY
Physics in Action. F. 11.30 *Mott Seminar
Room*

Group Project Work. F. 2–4 *Ryle Seminar Room*

Course S

DR R. J. BUTCHER AND OTHERS
Experiment E1, Registration W. 9.30 (6 Oct.)

PROF. J. CARTER AND OTHERS
Literature Review.

DR P. MARTIN AND OTHERS
Physics Education.

DR R. J. BUTCHER AND OTHERS
Experiment E2, Registration W. 2.30 (19 Jan.)

PROF. J. CARTER AND OTHERS
The same continued.

DR P. MARTIN AND OTHERS
The same continued.

PROF. J. CARTER AND OTHERS
The same continued.

DR P. MARTIN AND OTHERS
The same continued.

NATURAL SCIENCES TRIPOS, PART II (continued)

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GENETICS

Course Organisers: Dr M. Segal and Dr C. Farr E-mail: partII.organisers@gen.cam.ac.uk
Course Website: www.gen.cam.ac.uk/

A detailed timetable for this course will be available in the Department of Genetics.

All lectures take place in the *Part II Lecture Room (G6), Department of Genetics* on M. Tu. W. Th. F., unless otherwise stated

Chromosomes, Cell Cycle and Cancer

PROF. D. GLOVER, PROF. M. ASHBURNER, DR C. FARR AND
DR M. SEGAL
(Twenty-four lectures, beginning 7 Oct.)

Plant and Microbial Genetics

DR D. SUMMERS, DR P. OLIVER, DR J. ARCHER AND
DR I. FURNER
(Twenty-four lectures, beginning 7 Oct.)

Cell Biology and Developmental Genetics

PROF. A. MARTINEZ-ARIAS, PROF. D. ST JOHNSTON, DR M.
ZERNICKA-GOETZ AND DR J. AHRINGER
(Twelve lectures, beginning 12 Nov.)

Human Genetics, Genomics and Systems Biology

DR D. MACDONALD, DR C. FARR, DR S. RUSSELL AND
DR G. MICKLEM
(Twelve lectures, beginning 12 Nov.)

Long Reading Weekend. 5–8 Nov.

Evolution

DR M. MAJERUS, DR F. BALLOUX AND DR J.
BROWN
(Twenty-four lectures, beginning 20 Jan.)

Cell Biology and Developmental Genetics

The same continued.
(Twelve lectures, beginning 20 Jan.)

Human Genetics, Genomics and Systems Biology

The same continued.
(Twelve lectures, beginning 7 Feb.)

Reading Week. 14–18 Feb.

Revisions seminars (Five sessions, dates to be announced)

GEOLOGICAL SCIENCES AND MINERAL SCIENCES

Students offering Option A (leading to the three year degree – Part IIA) must take two core courses in the Michaelmas Term and two options in the Lent and Easter Terms. They must in addition attend the Skills course S1 in the Michaelmas Term.

Students offering Option B (leading to Part IIB and to the four year degree – Part III) must take two core courses in the Michaelmas Term and three options in the Lent and Easter Terms. They must in addition attend the Skills course S1 in the Michaelmas Term.

Core C1 Geophysics

PROF. J. A. JACKSON, DR F. TILMANN AND PROF.
D. P. MCKENZIE
Convenor: Prof. J. A. Jackson
Lectures. Tu. Th. 9 *Harker Room*
Practicals. Tu. Th. 10–12 *Petrology Laboratory*

Core C2 Petrology and Geochemistry

DR T. J. B. HOLLAND, DR A. GALY AND DR S. GIBSON
Convenor: Dr T. J. B. Holland
Lectures. M. F. 9 *Harker Room*
Practicals. M. F. 10–12 *Petrology Laboratory*

Core C3 Sedimentology and Palaeontology

DR N. HOVIUS, PROF. I. N. MCCAVE, PROF. R. B. RICKARDS
AND DR R. WOOD
Convenor: Dr N. Hovius
Lectures. W. 9, F. 12 *Harker Room*
Practicals. W. 10–12, F. 2–4 *Palaeontology/Petrology
Laboratories*

Core C4 Mineralogy

DR S. A. T. REDFERN, PROF. M. A. CARPENTER AND
DR R. J. HARRISON
Convenor: Prof. M. A. Carpenter
Lectures. Tu. W. 2 *Oxburgh Room*
Practicals. W. Th. 3–4.30 *IB Mineralogy Laboratory*

Core C5 Mineral Physics

DR M. T. DOVE AND MR P. WELCHE
Convenor: Dr M. T. Dove
Lectures. W. 9, F. 2 *Oxburgh Room*
Practicals. W. 10–11.30, F. 3–4.30 *IB Minerals
Laboratory*

Option 6 Continental Tectonics and Mountains

DR J. A. JACKSON, DR N. HOVIUS AND A. N. OTHER
Convenor: Dr J. A. Jackson
Lectures. Tu. Th. 9 *Tilley Room*
Practicals. Tu. 10–11.30, Th. 10–11.30
Petrology Laboratory

The same continued. (Eight revision sessions)

Option 7 Oceanic and Continental Margins

PROF. R. S. WHITE, DR J. HAINES AND DR. D. M.
PYLE
Convenor: Prof. R. S. White
Lectures. Tu. F. 2 *Harker Room*
Practicals. Tu. F. 3–4.30 *Petrology
Laboratory*

The same continued. (Eight revision sessions)

Option 8 Metamorphic and Igneous Processes

PROF. M. J. BICKLE, DR. S. GIBSON AND
DR A. GALY
Convenor: Prof. M. J. Bickle
Lectures. M. Th. 2 *Harker Room*
Practicals. M. Th. 3–4.30 *Petrology
Laboratory*

The same continued. (Eight revision sessions)

Option 9 Quaternary Oceans and Climate Change

PROF. I. N. MCCAVE, PROF. H. E. ELDERFIELD AND
A. N. OTHER
Convenor: Prof. H. E. Elderfield
Lectures. M. 9, W. 2 *Harker Room*
Practicals. M. 10–11.30, W. 3–4.30 *Petrology
Laboratory*

The same continued. (Eight revision sessions)

Option 10 Ancient Ecosystems

PROF. S. CONWAY-MORRIS AND
DR. N. J. BUTTERFIELD
Convenor: Prof. S. Conway-Morris
Lectures. W. F. 9 *Harker Room*
Practicals. W. F. 10–11.30 *Palaeontology
Laboratory*

The same continued. (Eight revision sessions)

NATURAL SCIENCES TRIPOS, PART II (continued)

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GEOLOGICAL SCIENCES AND MINERAL SCIENCES (continued)

Skills Course S1

DR N. H. WOODCOCK
 Convenor: Dr N. H. Woodcock M. Th. 2-5 *Harker
 Room and Computer Room* (first three weeks)

Field Course to Greece 3-11 Dec. 2004

PROF. J. A. JACKSON AND DR N. HOVIUS

**Option M6 Diffraction, Electron Microscopy and
 Microanalysis**

DR G. LUMPKIN, DR M. WELCH, DR S. A. T. REDFERN AND DR
 M. T. DOVE
 Convenor: Dr G. Lumpkin
 Lectures. M. F. 9 *Oxburgh Room*
 Practicals. M. F. 10-11.30 *IB Minerals Laboratory*

Option M4 Properties of Crustal Materials

DR S. A. T. REDFERN, DR M. WELCH AND DR. S. A.
 HAYWARD
 Convenor: Dr S. A. T. Redfern
 Lectures. W. F. 9 *Oxburgh Room*
 Practicals. W. F. 10-11.30 *IB Minerals
 Laboratory*

The same continued. (Eight revision sessions)

**Option M5 Computational Methods in Crystal
 Physics**

DR E. ARTACHO AND DR C. J. PICKARD
 Convenor: Dr E. Artacho
 Lectures. M. 9, W. 2 *Oxburgh Room*
 Practicals. M. 10-11.30, W. 3-4.30 *IB Harker
 2*

The same continued. (Eight revision sessions)

HISTORY AND PHILOSOPHY OF SCIENCE

A detailed timetable and course handbook are available from the Department. For further details E-mail: hps-admin@lists.cam.ac.uk

Prof. Lipton and Dr Hopwood would like to see all Part II students taking HPS on Wednesday 8 Oct. at 11 a.m. in *Seminar Room 2, Department of
 History and Philosophy of Science.*

All classes and seminars will be held in the *History and Philosophy of Science Seminar Rooms, Free School Lane* unless
 otherwise stated

Primary Source Seminars

*It is essential that all HPS Part II students attend four
 seminars, three from the papers they are taking and
 one other.* Paper 1: DR E. ROBSON, Selections from S.
 Parpola (ed.), *Letters from Assyrian and Babylonian
 Scholars* (1990). Tu. 9 (weeks 1-4)

Paper 2: PROF. S. SCHAFFER AND OTHERS, Robert Hooke,
Micrographia (1665). F. 4 (weeks 1-4)

Paper 3: DR J. ENDERSBY, DR P. WHITE AND OTHERS, Charles
 Darwin, *Origin of Species* (1859). M. 4 (weeks
 1-4)

Paper 4: DR T. LEWENS, Bas van Fraassen, *The Scientific
 Image* (1981), chapter 2. Th. 3 (weeks 1-4)

Paper 5: PROF. M. KUSCH, Langdon Winner, 'Do Artefacts
 Have Politics?'. F. 11 (weeks 1-4)

Paper 6: PROF. J. FORRESTER AND DR N. MANSON, Sigmund
 Freud, *The Interpretation of Dreams* (1900), chapter
 7. Th. 11 (weeks 1-4)

Paper 7: DR L. KASELL, Helkiah Crooke,
Mikrocosmographia (1616), Book 4. F. 12 (weeks
 1-4)

Paper 8: DR N. HOPWOOD AND DR S. WILMOT, Robert Koch,
 'The Aetiology of Tuberculosis' (1882), trans.
 K. Codell Carter, *Essays of Robert Koch* (1987).
 M. 12 (weeks 3 and 4); Tu. 2 (week 3); Th. 2 (week 4)

Paper 9: DR M. FRASCA-SPADA AND PROF. N. JARDINE, A. D.
 Sokal, 'Transgressing the Boundaries: Towards a
 Transformative Hermeneutics of Quantum Gravity'
 (1996). Tu. 3 (weeks 1-4)

Paper 10: DR J. AGAR Rachel Carson, *Silent Spring* (1962).
 W. 4 (weeks 1-4)

(Paper 1) Classical Traditions in the Sciences

Course Organisers: Dr E. Robson, E-mail:
er264@cam.ac.uk, and Dr L. Taub, E-mail:
lct1001@cam.ac.uk

DR E. ROBSON
 Primary Source. Tu. 9 (weeks 1-4)

PROF. N. JARDINE, PROF. R. MCKITTERICK, DR E. ROBSON
 AND DR L. TAUB
 Introduction. Th. 10 (weeks 1-4) (*Essential. No
 supervisions.*)

DR L. TAUB AND DR L. KASELL
 Instruments, Books and Collections. Tu. 11
 (weeks 1-4)

DR B. MUSALLAM AND DR N. EL-BIZRI
 Arabic Science. M. 2 (weeks 1-4)

DR L. TAUB, DR C. SALAZAR, DR A. IMHAUSEN AND
 DR J. WARREN
 Ancient Mediterranean Science. M. 2 (weeks 5-8)

Dissertation Seminar

W. F. 4 (weeks 1-4)

*It is essential that each HPS Part II student
 attends at least two of these seminars.*

DR E. ROBSON
 Centres of Excellence: Patronage and the
 Exact Sciences in the Middle East,
 800BCE-1500CE. W. 9 (weeks 1-8)

PROF. SIR GEOFFREY LLOYD
 Greek and Chinese Science. M. 2 (weeks
 5-8)

DR A. CUNNINGHAM
 The Making of the 'Scientific Revolution'.
 Tu. 11 (weeks 1-4)

DR R. SERJEANTSON
 Proof and Persuasion. Tu. 11 (weeks 5-8)

DR L. TAUB, DR C. SALAZAR, DR A. IMHAUSEN
 AND DR J. WARREN
 The same continued. M. 2 (weeks 1-4)

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NATURAL SCIENCES TRIPOS, PART II (continued)

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HISTORY AND PHILOSOPHY OF SCIENCE (continued)

(Paper 2) Natural Philosophies: Renaissance to Enlightenment

Course Organiser: Prof. S. Schaffer, E-mail: sjs16@cam.ac.uk

PROF. S. SCHAFFER AND OTHERS

Primary Source. F. 4 (weeks 1-4)

DR P. FARA, MR S. MANDELBROTE, PROF. S. SCHAFFER AND DR N. WILDING

Natural Philosophy and Exact Sciences. W. 10 (weeks 1-8)

DR L. KASSELL

Occult Philosophy. M. 10 (weeks 1-8)

(Paper 3) Science, Industry and Empire

Course Organiser: Prof. S. Schaffer, E-mail: sjs16@cam.ac.uk

DR J. ENDERSBY, DR P. WHITE AND OTHERS

Primary Source. M. 4 (weeks 1-4)

DR N. HOPWOOD, PROF. N. JARDINE AND PROF. S. SCHAFFER
Laboratories and Disciplines: German Sciences. F. 2 (weeks 1-8)

DR J. ENDERSBY, DR A. SECORD, DR S. SIVASUNDARAM AND DR P. WHITE

Life on Earth: Natural History and Biological Sciences. M. 3 (weeks 1-8)

(Paper 4) Metaphysics, Epistemology and the Sciences

Course Organisers: Prof. P. Lipton, E-mail: pl112@cam.ac.uk, and Dr T. Lewens, E-mail: tml1000@cam.ac.uk

DR T. LEWENS

Primary Source. Th. 3 (weeks 1-4)

PROF. P. LIPTON

Explanation, Causation and Law. W. 12 (weeks 1-8)

PROF. M. KUSCH

Epistemology. M. 11 (weeks 1-8)

(Paper 5) Science and Technology Studies

Course Organiser: Prof. M. Kusch, E-mail: mphk2@cam.ac.uk and Dr T. Lewens, E-mail: tml1000@cam.ac.uk

PROF. M. KUSCH

Primary Source. F. 11 (weeks 1-4)

DR J. AGAR, PROF. M. KUSCH AND PROF. S. SCHAFFER

Sociology of Scientific Knowledge and Technology. Tu. 12 (weeks 1-8); W. 2 (weeks 1-8)

DR A. HATTIANGADI

Social Construction. F. 11 (weeks 5-8)

(Paper 6) History and Philosophy of Mind Course

Organiser: Prof. J. Forrester, E-mail: jpf11@cam.ac.uk

PROF. J. FORRESTER AND DR N. MANSON

Primary Source. Th. 11 (weeks 1-4)

PROF. J. FORRESTER

Freud, Psychoanalysis and the Twentieth Century. W. 11 (weeks 1-8); Th. 11 (weeks 5-8)

DR D. THOM

Eugenics and Psychology in the UK, 1869-1971. F. 12 (weeks 5-8)

DR P. FARA, MR S. MANDELBROTE, PROF. S. SCHAFFER AND DR N. WILDING
The same continued. W. 10 (weeks 1-4)PROF. N. JARDINE, DR E. SPARY AND DR P. WHITE
Natural Histories. M. 10 (weeks 1-8)

DR L. TAUB

Instruments, Models and Tools. F. 11 (weeks 1-4)

DR C. CULLEN

Science and Cross-Cultural Encounter in China. W. 10 (weeks 5-8)

DR R. NOAKES, DR K. PRICE AND PROF. S. SCHAFFER

The Workshop of the World: British Physical Sciences. Tu. 3 (weeks 1-8)

PROF. S. SCHAFFER AND DR L. TAUB

Instruments and Exhibitions. F. 11 (weeks 5-8)

DR P. FARA, DR R. O'CONNOR, DR A. SECORD, DR S. SIVASUNDARAM AND DR P. WHITE

Science as Public Culture. M. 3 (weeks 1-8)

DR T. LEWENS AND DR M. MAMELI
Philosophy of Biology. M. 11 (weeks 1-8)

PROF. J. FORRESTER

Thinking in Cases. W. 11 (weeks 1-4)

PROF. P. LIPTON

Induction. W. 12 (weeks 1-8) (*Mill Lane lecture rooms*)DR N. HOPWOOD AND DR S. WILMOT
Reproductive Technologies. Tu. 12 (weeks 1-8)

DR E. ROBSON

The Material Culture of Mathematics in Historical Perspective. Th. 11 (weeks 1-8)

DR S. SIVASUNDARAM

Science and Race. W. 11 (weeks 5-8)

PROF. P. LIPTON
Topics in the Philosophy of Mind. F. 10 (weeks 1-8) (*Mill Lane, Lecture Rooms*)

DR G. BERRIOS

History of Psychopathology and Psychiatry. F. 3 (weeks 1-4)

DR N. MANSON

Unconscious Mentality and Freud's Methodology. W. 2 (weeks 1-8)

DR J. AGAR

Turing and the History of Artificial Intelligence. W. 3 (weeks 5-8)

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2004

LENT 2005

EASTER 2005

HISTORY AND PHILOSOPHY OF SCIENCE (continued)

(Paper 7) Medicine from Antiquity to the Enlightenment

Course Organiser: Dr L. Kassell, E-mail:

ltk21@cam.ac.uk

DR L. KASSELL

Primary Source. F. 12 (weeks 1–4)

DR L. KASSELL

Medicine and Society in Europe, 1250–1800. Th. 12
(weeks 1–8)

DR L. KASSELL

How to Live Forever. Tu. 2 (weeks 5–8)

DR A. CUNNINGHAM

Seventeenth and Eighteenth-Century Medicine.
F. 12 (weeks 1–8)

MR P. JONES

Medicine and Communication, 1375–1640.

Tu. 2 (weeks 1–4)

PROF. SIR GEOFFREY LLOYD AND DR C. SALAZAR

Medicine and Society in the Ancient World.

Th. 12 (weeks 1–8)

DR M. SATCHELL

Medical Spaces and Places, 1100–1650. F. 2

(weeks 1–4)

DR M. SATCHELL

Field Trip to Medieval Hospitals. 17 Mar.

(Paper 8) Modern Medicine and Biomedical Sciences

Course Organiser: Dr N. Hopwood, E-mail:

ndh12@cam.ac.uk

DR N. HOPWOOD

Primary Source. M. 12 (weeks 3 and 4); Tu. 2 (week 3);

Th. 2 (week 4)

DR N. HOPWOOD, DR H. KAMMINGA, DR K. TAYLOR AND

DR S. WILMOT

Making Modern Medicine. M. 12 (weeks 1–8); Tu. 2

(weeks 1–8); Th. 2 (weeks 1–8)

DR A. CUNNINGHAM

Dissection and the Body in the Age of

Revolutions. Th. 2 (weeks 1–4)

DR E. LAFFERTON

Body History. M. 12 (weeks 1–4)

DR N. HOPWOOD

Embryo Images. Th. 2 (weeks 5–8)

PROF. J. FORRESTER

History of Psychiatry. M. 12 (weeks 5–8)

(Paper 9) Images of the Sciences

Course Organiser: Prof. N. Jardine, E-mail:

nj103@cam.ac.uk

DR M. FRASCA-SPADA AND PROF. N. JARDINE

Primary Source. Tu. 3 (weeks 1–4)

PROF. J. FORRESTER, PROF. N. JARDINE, DR T. LEWENS AND

DR M. FRASCA-SPADA

Ideologies of Science. Tu. 10 (weeks 1–8)

DR M. FRASCA-SPADA

Sources of Knowledge: Rationalism and Empiricism.

W. 3 (weeks 1–8)

DR P. FARA

People and Pictures. Th. 3 (weeks 5–8)

PROF. J. FORRESTER, PROF. N. JARDINE, DR T.

LEWENS AND DR M. FRASCA-SPADA

The same continued. Tu. 10 (weeks 1–4)

PROF. N. JARDINE

Histories of Science and their Uses. Th. 3

(weeks 1–8)

DR M. FRASCA-SPADA AND PROF. N. JARDINE

Kant and the Sciences. Th. 10 (weeks 5–8)

(Paper 10) Science and Technology from the First World War

Course Organiser: Dr J. Agar, E-mail: ja310@cam.ac.uk

DR J. AGAR

Primary Source. W. 4 (weeks 1–4)

DR J. AGAR, DR J. ENDERSBY AND OTHERS

Science and Technology, 1914–1945. Tu. 4 (weeks 1–8);

Th. 10 (weeks 5–8)

PROF. M. KUSCH

Science and Democracy. F. 3 (weeks 1–4)

DR T. LEWENS

Genes, Health and Autonomy. F. 3 (weeks 5–8)

DR J. AGAR, DR S. DE CHADAREVIAN AND DR J.

ENDERSBY

Science and Technology after 1945. Th. 10

(weeks 1–8); W. 3 (weeks 1–4)

DR E. ROBSON

Science and Warfare in Modern Iraq. Tu. 9

(weeks 1–4)

MR S. JOHN

Risk. Tu. 9 (weeks 5–8)

Attention is drawn to courses announced by other authorities. Students are particularly advised to attend other relevant courses in the Faculties of History, Philosophy, and Social and Political Sciences.

DR N. WRIGHT

Latin for Beginners. M. T. Th. F. 5

DR P. BURSILL-HALL

Topics in the History of Mathematics. M. W. F. 4 *Mill**Lane Lecture Room 1*

DR M. BRAVO AND OTHERS

Cultures of the field (times to be announced)

PROF. E. J. CRAIG

Causality from Descartes to Hume. [Philosophy]

DR J. MARENBOON

Medieval Logic

DR N. WRIGHT

The same continued.

DR S. SIVASUNDARAM

Science and Nature in 19thC British Empire.

F. 11 (weeks 1–4) [History Faculty].

DR N. WRIGHT

The same continued.

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2004

LENT 2005

EASTER 2005

MATERIALS SCIENCE AND METALLURGY

Course Organiser: Dr S. M. Best E-mail: PartII@msm.cam.ac.uk

A detailed timetable is available in the Department.

All lectures will be given in the *Seminar Room (T001)*

DR K. M. KNOWLES

C3 Mathematical Methods. (Six lectures)

DR P. A. MIDGLEY

C4 Tensor Properties. (Twelve lectures)

DR C. RAE

C6 Crystallography. (Nine lectures)

PROF. A. L. GREER

C7 Kinetics. (Nine lectures)

DR J. A. LITTLE

C8 Chemical Stability. (Nine lectures)

PROF. H. K. D. H. BHADSHIA

C9 Alloys. (Nine lectures)

PROF. A. H. WINDLE

C10 Structure and Properties of Polymers. (Twelve lectures)

PROF. T. W. CLYNE

C16 Composite Materials. (Twelve lectures)**Speakers from Industry**

(M. 11, 29 Nov.)

Visit to Industry

Half day (1 Dec.)

Examples Classes

Timetable available in the Department

Practical Classes

M. Tu. W. 2-5 (Two sessions to be chosen each week)

Management Option

DR G. T. BURSTEIN

F. 2-3 (Eight lectures)

Language Option

(Two 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

DR R. V. KUMAR

C1 Phase Equilibria. (Six lectures)

PROF. P. D. BRISTOWE

C5 Physical Properties. (Twelve lectures)

DR J. L. DRISCOLL

C11 Surfaces and Interfaces. (Six lectures)

DR S. TIN

C12 Plasticity and Deformation. (Nine lectures)

DR W. J. CLEGG

C13 Ceramics. (Nine lectures)

DR R. E. CAMERON

C14 Polymer Processing. (Six lectures)

DR C. RAE

C15 Fracture and Fatigue. (Twelve lectures)

DR R. V. KUMAR

C17 Heat and Mass Transfer. (Six lectures)**Speakers from Industry**

(Th. 11, 3 Mar.)

Visit to Industry

Half day (15 Feb.)

Examples Classes

Timetable available in the Department

ProjectsDesign project
Materials project**Management Option**

DR G. T. BURSTEIN AND PROF. D. J. FRAY

F. 2-3 (Four lectures)

A. N. OTHER

Th. 2-3 (Eight lectures)

Language Option

The same continued.

DR E. R. WALLACH

C2 Selection of Materials. (Six lectures)

DR S. M. BEST

C18 Biomaterials. (Six lectures)

NEUROSCIENCE

Course Organiser: Dr T. J. Bussey E-mail: tjb1000@cam.ac.uk

All lectures will be held in *Lecture Room 2 Austin Building*, unless otherwise stated**Module 1: Development, Degeneration and Regeneration.**

M. Th. 9

PROF. M. BATE

Early Development of the Nervous System. (Six lectures, 7-25 Oct.)

DR G. COOK

Axonal Growth. (Four lectures, 1, 4, 15, 18 Nov.)

DR J. H. ROGERS

Development of Connections. (Four lectures, 22 Nov. - 2 Dec.)

READING WEEK (8-12 Nov.)

PROF. E. B. KEVERNE

Development of Brain and Behaviour. (Three lectures, 17-24 Jan.)

Note the early start of this course.

DR P. KIRKPATRICK

Ischaemia, Excitotoxicity, and Stroke. (Two lectures, 27, 31 Jan.)

DR M.-G. SPILLANTINI

Neural Degeneration. (Four lectures, 3-14 Feb.)

DR R. BARKER

Neural Regeneration. (Four lectures, 17 Feb., 28 Feb.-7 Mar.)

DR R. FRANKLIN

Glial Degeneration and Repair. (Three lectures, 10-17 Mar.)

READING WEEK (21-25 Feb.)

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2004

LENT 2005

EASTER 2005

NEUROSCIENCE (continued)

Module 2: Cellular and Molecular Neurobiology.

W. F. 9, unless otherwise stated

DR R. MURRELL-LAGNADO

Membrane-Located Voltage Sensors and Control of Neurone Function. (Five lectures, 6–20 Oct.)

Note the early start of this course.

DR J. A. KOENIG

Receptor-Control of Neuronal Excitability: (a) Fast Neurotransmitters. (Five lectures, 22 Oct. – 5 Nov.)

DR P. J. RICHARDSON

Receptor-Control of Neuronal Excitability: (b) Slow Neurotransmitters. (Four lectures, 17–26 Nov.)

DR P. J. RICHARDSON

Genomics of Neuronal Systems. (Two lectures 1, 3 Dec.)

READING WEEK (8–12 Nov.)

Module 3: Control of Action. W. F. 10, unless otherwise stated

DR B. HEDWIG

Synaptic, Cellular and Network Properties. (Four lectures, 6–15 Oct.)

Note the early start of this course.

DR D. PARKER

Network Mechanisms in the Control of Movement. (Three lectures, 20–27 Oct.)

DR T. MATHESON

Limb Targeting. (Four lectures, 1 Nov. (M. 12), 4 Nov. (Th. 12), 3, 5 Nov.)

DR P. EVANS

Modulating a System. (Four lectures, 17–26 Nov.)

READING WEEK (8–12 Nov.)

Module 4: Sensory Systems. Tu. 9, Th. 10

DR R. HARDIE

Photoreceptors. (Four lectures, 7–19 Oct.)

PROF. E. B. KEVERNE

Olfactory Receptors. (Two lectures, 21, 26 Oct.)

PROF. J. MOLLON

Visual Processing of Spatial Contrast and of Colour. (Four lectures, 28 Oct.- 16 Nov.)

DR B. HEDWIG

Auditory Mechanisms. (Four lectures, 18–30 Nov.)

READING WEEK (8–12 Nov.)

Module 5: Learning, Memory and Cognition. M. Tu. 10

DR B. J. MCCABE

Cellular Mechanisms of Learning and Memory. (Four lectures, 11–19 Oct.)

DR T. BUSSEY

Conditioning and Associative Learning. (Four lectures, 25 Oct. – 2 Nov.)

DR L. SAKSIDA

Computational Neuroscience I: Conditioning and Associative Learning. (Two lectures, 15, 16 Nov.)

DR P. BRENNAN

Olfactory Learning. (Four lectures, 22–30 Nov.)

READING WEEK (8–12 Nov.)

DR P. THORN

Synaptic Mechanisms and Calcium Signalling. (Seven lectures, 19 Jan. – 9 Feb.)

DR B. MCCABE

Synaptic Plasticity. (Three lectures, 11–18 Feb.)

DR J. M. EDWARDSON

Intracellular Signalling and Neurotransmitter Release. (Four lectures, 2–11 Mar.)

DR S. CHAWLA

Regulation of Gene Expression. (Three lectures, 15 Mar. (Tu. 12) and 16, 18 Mar.)

READING WEEK (21–25 Feb.)

DR M. HASTINGS

Neural Control of Circadian Rhythms. (Four lectures, 19–28 Jan.)

Note the early start of this course.

DR S. EDGLEY

Cerebellum. (Four lectures, 4 Feb. (F. 11), 9 Feb. (W. 10), 14 Feb. (M. 12), 16 Feb. (W. 10))

DR R. H. S. CARPENTER

Neural Decisions. (Three lectures, 2–9 Mar.)

DR S. JONES

Basal Ganglia. (Four lectures, 14 Mar. (M. 12) and 11–18 Mar.)

READING WEEK (21–25 Feb.)

PROF. P. A. MCNAUGHTON

Pain. (Four lectures, 18–27 Jan.)

Note the early start of this course.

DR H. KRAPP

Electric Sense and Motor Vision. (Four lectures, 1–10 Feb.)

DR J. ALCANTARA

Auditory Hair Cells. (Two lectures, 15, 17 Feb.)

DR J. ALCANTARA

Auditory Processing in the Cochlea. (Six lectures, 1–17 Mar.)

READING WEEK (21–25 Feb.)

DR R. CARDINAL

Brain Mechanisms of Memory and Cognition. (Six lectures, 17, 24, 31 Jan., 7, 14, 28 Feb.) *Physiology Main Lecture Theatre**Note the early start of this course.*

DR T. BAK AND DR A. CALDER

Cognitive Neuropsychology. (Eight lectures, 18, 25 Jan., 1, 8, 15 Feb., 1, 8, 15 Mar.)

*Physiology Main Lecture Theatre**Note the early start of this course.*

DR L. SAKSIDA

Computational Neuroscience II: Memory and Cognition. (Two lectures, 7, 14 Mar.)

READING WEEK (21–25 Feb.)

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2004

LENT 2005

EASTER 2005

PATHOLOGY

Course Organiser: Dr I. Brierley E-mail: ib103@mole.bio.cam.ac.uk
 Course Website: www.path.cam.ac.uk/

All lectures will be given in the *Department of Pathology* unless otherwise stated.

Introductory lecture

All options. W. 3 (One lecture, 6 Oct.) *It is important that all students attend the introductory lecture*

Option A: Cellular and Genetic Pathology. Tu. Th. Sa. 9

Option Organiser: Dr N. Affara (email: na106@cam.ac.uk) Tel: 33700)

DR I. FURNER, DR D. GRIFFIN, DR J. YATES, DR N. AFFARA,
 DR C. SARGENT, DR D. RUBINSZTEIN, DR D. R. SARGAN,
 DR J. AJIOKA, DR D. MACDONALD AND DR M. HURLES

N.B. Some lectures are held at 11.30 or 12 noon

Part I: Genes, Genomes and Disease.

DR C. PRINT, DR A. SHARKEY AND DR A. PHILPOTT

Part II: Molecular Genetics and Pathology of Reproduction.

Option B: Immunology. Tu. Th. 5, Sa. 10.15

Option Organiser: Dr H. Reyburn (email: htr20@cam.ac.uk) Tel: 66422

DR H. REYBURN, DR M. CLARK, PROF. A. COOKE, DR N. HOLMES,
 DR K. G. C. SMITH, PROF. J. TROWSDALE, DR I.-L. MARTENSSON-BOPP,
 DR A. KELLY, DR P. LEHNER, DR G. ALEXANDER, PROF. I. MCCONNELL AND PROF. D. T. FEARON

Option C: Microbial and Parasitic Disease. M. W. F. 9

Option Organiser: Dr I. B. Kingston (email: ibk1000@cam.ac.uk) Tel: 33330

DR R. HAYWARD, DR V. KORONAKIS, PROF. D. J. MASKELL AND DR G. FRASER

Bacterial Disease and Pathogenicity.

DR D. BROWN, DR V. KORONAKIS AND DR P. MASTROENI
 Combating Bacterial Disease.

DR N. BROWN AND PROF. A. M. LEVER
 Fungal Infections.

DR G. FRASER AND DR I. B. KINGSTON

Journal Research Seminars

Option D: Virology. M. W. F. 5

Option Organiser: Dr T. D. K. Brown (email: tdkb@mole.bio.cam.ac.uk) Tel: 36917)

PROF. A. H. WYLLIE, DR T. D. K. BROWN, DR S. WYNNE, DR P. DIGARD,
 DR J. GRAY, DR I. BRIERLEY, DR H. BROWNE AND DR. J. SINCLAIR

IT Training

MS ROBERTS

DR P. EDWARDS, PROF. A. H. WYLLIE, DR R. HESKETH,
 DR R. CLARKSON, PROF. V. P. COLLINS, DR A. BANNISTER,
 DR C. CALDAS, DR P. JONES, DR C. WATSON AND PROF. M. A. STANLEY

Part III: Defects in Cellular Growth and Differentiation: Cancer

DR N. HOLMES, DR B. A. BLACKLAWS, DR J. BONAME,
 DR P. MASTROENI, DR H. REYBURN, DR A. MOFFETT,
 DR D. B. PALMER, DR A. GREEN, PROF. A. COOKE,
 PROF. L. WICKER, PROF. D. T. FEARON, DR G. BUTCHER AND PROF. I. MCCONNELL

DR I. B. KINGSTON, DR J. AJIOKA, DR M. SHIRLEY AND DR C. PEACOCK
 Major Protozoal Diseases.
 DR D. DUNNE, DR K. HOFFMAN, DR I. B. KINGSTON,
 DR E. MICHAEL AND DR S. MELVILLE
 Major Helminth Diseases.

DR I. B. KINGSTON AND DR J. W. AJIOKA
Journal Research Seminars (10-1)

DR G. TURNER, DR B. A. BLACKLAWS, DR J. BONAME,
 DR P. BORROW, PROF. A. M. L. LEVER, DR S. EFSTATHIOU,
 PROF. A. C. MINSON, PROF. M. A. STANLEY, DR P. DIGARD,
 DR T. D. K. BROWN, DR J. C. STERLING, DR H. BROWNE,
 DR P. D. MINOR, DR G. K. DARBY AND DR P. STEVENSON

DR C. PRINT AND DR S. CHARNOCK-JONES
 Part IV: Angiogenesis.
 PROF. C. FFRENCH-CONSTANT
 Part V: Neurodevelopmental Biology and Genetic Disease.

DR M. CLARK, PROF. J. S. H. GASTON AND DR H. REYBURN

DR M. BOOTH
 Epidemiology.
 DR I. B. KINGSTON AND DR S. CROFT
 Parasite Vaccines and Chemotherapy.

Project Seminars Dates to be confirmed

DR T. D. K. BROWN, DR P. DIGARD, PROF. P. SISSONS,
 DR M. BOOTH AND DR B. T. GRENFELL

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2004

LENT 2005

EASTER 2005

PHARMACOLOGY

Course Organiser: Dr J. M. Edwardson E-mail: jme1000@cam.ac.uk

The introductory session for NST and MVST Part II (Two Paper and Four Paper) students will be at 9 a.m., Wednesday, 8 Oct. in the *Lecture Theatre, Department of Pharmacology*. It is expected to last all morning with a break for coffee.

Lectures will be given in the *Lecture Theatre, Department of Pharmacology*

Pharmacology of Integrated Systems**(also MVST Part II Pharmacology of Integrated Systems)**

DR C. R. HILEY

Cardiovascular Pharmacology. (Eight lectures, 7 Oct.–2 Nov.) Tu, Th, 11

DR M. A. BARRAND AND DR H. W. VAN VEEN

Resistance to Antibacterial, Antiparasitic and Anticancer Agents. (Six lectures, 8–20 Oct.) M, W, F, 9

DR T. P. FAN

Pharmacology of Inflammation and Angiogenesis. (Six lectures, 22 Oct.–3 Nov.) M, W, F, 9

DR P. THORN

Gastrointestinal Pharmacology. (Four lectures, 4–16 Nov.) Tu, Th, 11

PROF. P. A. MCNAUGHTON

Cellular and Molecular Aspects of Pain. (Four lectures, 5–12 Nov.) M, W, F, 9

DR F. H. MARSHALL

Drug Discovery. (Three lectures, 9–16 Nov.) M, W, F, 9

DR M. A. BARRAND

Apoptosis (Three lectures) (17, 19 Nov.) M, W, 9, (20 Nov.) Th, 11

DR M. A. BARRAND

Blood Brain Barrier. (Three lectures, 21–26 Nov.) M, W, F, 9

Molecular and Cellular Pharmacology

PROF. M. J. WARING AND PROF. V. K. K. CHATTERJEE

Drugs, Receptors and DNA. (Six lectures, 7–26 Oct.) Tu, Th, 9

DR L. MACVINISH

Pharmacology of Cystic Fibrosis and the Lung Epithelium. (Four lectures, 8–15 Oct.) M, W, F, 10

DR S. CHAWLA

Control of Transcription. (Three lectures, 18–22 Oct.) M, W, F, 10

DR J. M. YOUNG

Analysis of Drug-Receptor Interactions. (Five lectures, 25 Oct.–3 Nov.) M, W, F, 10

DR A. GENAZZINI

Excitatory Amino Acids. (Three lectures, 28 Oct.–4 Nov.) Tu, Th, 9

DR R. MURRELL-LAGNADO AND DR S. CHAWLA

Potassium, Sodium and Calcium Channels. (Twelve lectures, 5–22 Nov.) M, W, F, 10

DR J. M. EDWARDSON

Mechanisms of Exocytosis and Endocytosis. (Six lectures, 18–25 Nov., Tu, Th, 9, 26 Nov.–1 Dec., M, W, F, 9)

DR M. A. BARRAND

Aquaporins. (Two lectures, 2–3 Dec.) Tu, 9, W, 10

DR A. J. MORTON

Neurodegeneration. (Eight lectures, 21 Jan.–7 Feb.) M, W, F, 9

DR P. J. RICHARDSON

Genomics. (Two lectures, 4–6 Feb.) W, F, 9

DR Z. SARNYAI

Pharmacology of Psychiatric Disorders. (Eight lectures, 14 Feb.–2 Mar.) M, W, F, 9

T.B.A.

(Four lectures, 4–11 Mar.) M, W, F, 9

DR H. W. VAN VEEN

Carriers and Pumps as Targets for Drug Development. (Four lectures, 20 Jan.–1 Feb.) Tu, Th, 9

DR J. A. KOENIG

Ligand Gated Ion Channels. (Three lectures, 21–26 Jan.) M, W, F, 10

PROF. C. W. TAYLOR

G-Protein Coupled Receptors. Calcium Signalling. (Six lectures, 28 Jan.–11 Feb.) M, W, F, 10

PROF. R. F. IRVINE

Phosphoinositide Derived Messengers. (Four lectures, 3–15 Feb.) Tu, Th, 9

PROF. D. COOPER

cAMP Signalling. (Four lectures, 17 Feb.–1 Mar.) Tu, Th, 9

DR P. THORN

Spatial Aspects of Intracellular Signalling. (Two lectures, 3–8 Mar.) Tu, Th, 9

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2004

LENT 2005

EASTER 2005

PHYSIOLOGY

Course Organiser: Dr C. L.-H. Huang E-mail: clh11@cam.ac.uk
 Course Website: www.physiol.cam.ac.uk/

Common Module

Module organiser: Dr Michael J. Mason
These sessions are open to both NST & MVST students unless otherwise stated.

NST Orientation Day

W. 6 Oct. *Main Physiology Lecture Theatre*

Later sessions: *Main Physiology Lecture Theatre, unless otherwise stated*

DR A. SILVER
 NST: Introduction to scientific writing. (One lecture, M. 9; 11 Oct.)

DR A. SILVER
 MVST: Introduction to scientific writing. (One lecture, W. 2; 13 Oct.)

MRS C. RATCLIFF
 Cambridge Libraries and Searchable Databases. (One lecture, Th. 11; 14 Oct.)

DR J. H. ROGERS
 NST: Critical reading of research papers. (One lecture, Th. 11; 21 Oct.)

DR J. H. ROGERS
 MVST: Critical reading of research papers. (One lecture, Th. 3; 21 Oct.)

DR D. J. TOLHURST
 NST: Introduction to projects. (One lecture, Th. 2.30; 28 Oct.)

PROF. A. C. CRAWFORD
 Module 1 & 2 Seminar. (One lecture, Th. 3; 11 Nov.)
Physiology Lecture Theatre 3

MR T. R. CARTER
 IT (Further Information) (One lecture, date and venue to be confirmed.)

Module 1: Sensory Systems W, Th. 9 *unless otherwise stated*
Physiology Lecture Theatre 3

Module organiser: Dr I. M. Winter

DR D. J. TOLHURST
 Visual Cortex. (Four lectures, 14, 21, 28 Oct., 4 Nov.)

PROF. A. C. CRAWFORD
 Peripheral Auditory System. (Four lectures, 20, 27 Oct., 3, 10 Nov.)

DR I. M. WINTER
 Central Auditory System. (Four lectures, 11, 17, 18, 24 Nov.)

Module 2: Motor Systems F, 9, 11 *unless otherwise stated*
Physiology Lecture Theatre 3

Module organiser: Dr R. H. S. Carpenter

PROF. C. L.-H. HUANG
 Activation of Skeletal Muscle. (Three lectures, F, 9; 8 Oct.; F, 11; 8, 15 Oct.)

PROF. A. C. CRAWFORD
 Muscle Spindles. (Two lectures, F, 9, 11; 22 Oct.)

DR A. PELAH
 Visuomotor Adaptation and Control. (Two lectures, F, 9, 11; 29 Oct.)

DR R. H. S. CARPENTER
 Introduction to Eye Movements. (Four lectures, M, 9; 1 Nov.; F, 9; 5, 19 Nov.; F, 11; 19 Nov.)

PROF. R. N. LEMON
 Corticospinal Organisation. (Four lectures, F, 9; 12, 26 Nov.; F, 11; 12, 26 Nov.)

Other sessions: *Venues to be confirmed, unless otherwise stated*

DR R. H. S. CARPENTER
 Power Point. (One lecture, M. 9; 24 Jan.)

A. N. OTHER
 Statistics. (One lecture, M. 11.00; 24 Jan.)

DR R. H. S. CARPENTER
 Plotting Data (One lecture, Th. 11.00; 27 Jan.)

PROF. R. C. THOMAS
 Information regarding the Part II Exam (One lecture, W. 2; 2 Feb.) *Physiology Lecture Theatre 1*

NST Journal Clubs:

Venue: *Bryan Matthews Room*

These Journal Club dates are provisional and may change:

DR I. M. WINTER
 Module One Journal Club. F. 2.30 M. 4.30
 (Two sessions, 4, 14 Feb.)

DR R. H. S. CARPENTER
 Module Two Journal Club M. Tu. 2 (Two sessions, 31 Jan., 15 Feb.)

DR S. O. SAGE
 Module Three Journal Club. Tu. F. 4.30 (Two sessions, 8, 18 Feb.)

DR A. J. FORHEAD
 Module Four Journal Club. Th. M. 4.30 (Two sessions, 3, 21 Feb.)

DR C. J. SCHWIENING
 Module Five Journal Club. M. Tu. 4.30 (Two sessions, 7, 22 Feb.)

DR J. H. ROGERS
 Module Six Journal Club. Th. M. 4.30 (Three sessions, 10, 17, 28 Feb.)

PROF. R. D. PATTERSON
 Higher Auditory Processing. (Four lectures, 20, 26, 27 Jan., 2 Feb.)

DR S. BLEECK
 Binaural Hearing. (Two lectures, 3, 9 Feb.)

PROF. H. B. BARLOW
 Higher Visual Processes. (Three lectures, 10, 16, 17 Feb.)

DR M. JUUSOLA
 Information Coding in Sensory Systems. (Four lectures, 23, 24 Feb., 2, 3 Mar.)

DR R. H. S. CARPENTER
 Oculomotor Neurophysiology. (Five lectures, F, 9; 21, 28 Jan., 4, 11, 18 Feb.)

DR S. EDGLEY
 Cerebellum. (Three lectures, F, 11; 21, 28 Jan., 4 Feb.)

PROF. J. C. ROTHWELL
 Cortical and Subcortical Control of Movement. (Six lectures, F, 9; 25 Feb., 4, 11 Mar.; F, 11; 25 Feb., 4, 11 Mar.)

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2004

LENT 2005

EASTER 2005

PHYSIOLOGY (continued)

Module 3: Systems Physiology W. F. 10 *unless otherwise stated Physiology Lecture Theatre 3*
Module organiser: Dr S. O. Sage

- DR S. O. SAGE
Renal Physiology. (Five lectures, 8–22 Oct.)
- DR R. J. BARNES
Cardiovascular System in Exercise. (Four lectures, 27 Oct. – 5 Nov.)
- DR N. W. MORRELL
Pulmonary Circulation. (Two lectures, 10, 12 Nov.)
- PROF. J. T. FITZSIMONS
Thirst and Sodium Appetite. (Five lectures, 17 Nov.– 1 Dec.)

Module 4: Developmental Physiology Th. F. 12 *unless otherwise stated Bryan Matthews Room*
Module organiser: Dr A. J. Forhead

- DR A. J. FORHEAD
Development of Fetal Organs. (Four lectures, 7–15 Oct.)
- DR S. K. L. ELLINGTON
Embryogenesis. (Four lectures, 21 Oct. – 4 Nov.)
- PROF. A. L. FOWDEN
Growth and Metabolism of the Fetus. (Four lectures, 5–18 Nov.)
- DR D. A. GIUSSANI
Fetal Cardiovascular Development. (Three lectures, 19–26 Nov.)

Module 5: Cellular Physiology M. 10, Tu. 9, Th. 11 *unless otherwise stated Bryan Matthews Room*
Module organiser: Dr C. J. Schwiening

- DR MICHAEL J. MASON
Techniques lectures: Fluorescence Measurements of Ion Activities. (Two lectures, 11, 12 Oct.)
- DR M. P. MAHAUT-SMITH
Calcium Signalling. (Three lectures, 18, 19, 25 Oct.)
- DR S. O. SAGE
Store-Mediated Calcium Entry. (Three lectures, 26 Oct., 1, 2 Nov.)
- DR I. C. KLEPPE
Patch-Clamping. (One lecture, 9 Nov.)
- PROF. C. L-H. HUANG
Voltage-Gated Ion Channels. (Three lectures, 15, 16, 22 Nov.)
- PROF. R. C. THOMAS
Intracellular pH Regulation. (Two lectures, 23, 29 Nov.)
- PROF. R. C. THOMAS
pH Effects on Calcium. (One lecture, 30 Nov.)

- A. N. OTHER
T.B.A. (Two lectures, 21 Jan., 2 Feb.)
- PROF. J. COMPSTON
Bone Physiology. (Two lectures, 26, 28 Jan.)
- DR J. BRADLEY
Chronic Renal Failure. (Two lectures, 4, 9 Feb.)
- DR J. FIRTH
Acute Renal Failure. (Three lectures, 11–18 Feb.)
- PROF. D. B. DUNGER
Diabetes Mellitus. (Two lectures, 23, 25 Feb.)
- DR G. S. H. YEO
Control of Body Weight. (Two lectures, 2, 4 Mar.)

- DR W. H. COLLEDGE
Transgenesis. (Four lectures, 20–28 Jan.)
- PROF. M. A. H. SURANI
Developmental Biology. (Four lectures, 3–11 Feb.)
- DR D. A. GIUSSANI
Fetal Adrenal Gland and Parturition. (Two lectures, 17, 18 Feb.)
- DR D. A. GIUSSANI
Breathing Movements in the Fetus and Neonate. (One lecture, 24 Feb.)
- DR A. J. FORHEAD
Fetal Thyroid Gland. (One lecture, 25 Feb.)
- DR S. E. OZANNE AND DR A. J. FORHEAD
Intrauterine Programming of Adult Disease. (Two lectures, 3, 11 Mar.)
- DR A. J. FORHEAD
Glucocorticoids in Fetal Maturation. (Two lectures, 4, 10 Mar.)

- DR V. L. LEW
PMCA Thermodynamics. (Three lectures, 20, 24, 25 Jan.)
- DR P. WOODING
Electron Microscopy. (One lecture, 31 Jan.)
- DR C. J. SCHWIENING
pH Microdomains. (One lecture, 1 Feb.)
- DR C. J. SCHWIENING
Calcium Effects on pH. (One lecture, 7 Feb.)
- DR J. A. FRASER
Cell Volume Regulation. (One lecture, 8 Feb.)
- DR I. C. KLEPPE
Synaptic Mechanisms. (Two lectures, 14, 15 Feb.)
- DR J. H. ROGERS
Signal Transduction in Neural Development. (Five lectures, 21, 24, 28 Feb., 1, 7 Mar.)
- PROF. J. W. FAWCETT
Neural Development. (Three lectures, 8, 14, 15 Mar.)

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2004

LENT 2005

EASTER 2005

PHYSIOLOGY (continued)

Module 6: Medical Neurobiology Tu. Th. 10 *Physiology*
Lecture Theatre 3

Module organiser: Dr J. H. Rogers

DR R. TASKER

Acute Neurotoxicity. (Three lectures, 7–14 Oct.)

PROF. C. L-H. HUANG

Neurological Imaging. (Two lectures, 19,21 Oct.)

PROF. J. D. PICKARD

Stroke, Intracranial Pressure, and CNS Injury. (Two lectures, 26, 28 Oct.)

DR J. H. ROGERS

Neural Regeneration. (Four lectures, 2–11 Nov.)

DR R. FRANKLIN

Demyelination and Remyelination. (Two lectures, 16, 18 Nov.)

DR M-G. SPILLANTINI

Neural Degeneration. (Three lectures, 23–30 Nov.)

DR R. BARKER

Brain Grafting. (Two lectures, 20, 25 Jan.)

DR M. CALDWELL

Neural Stem Cells. (Three lectures, 27 Jan.–3 Feb.)

DR A. PARSONS

Development of CNS Pharmaceuticals. (One lecture, 8 Feb.)

DR S. BLEECK

Auditory Disorders. (Two lectures, 15, 17 Feb.)

DR A. LEE

Cognitive Disorders in Neurological Disease. (Two lectures, 22, 24 Feb.)

DR E. WEISBLATT

Scientific Basis and Treatment of Psychiatric Disorders. (Four lectures, 1–10 Mar.)

PLANT SCIENCES

Course Organiser: Dr J. M. Davies E-mail: jmd32@cam.ac.uk

Module organisers appear below. E-mail: firstname.surname@plantsci.cam.ac.uk unless otherwise specified

Course Website: www.plantsci.cam.ac.uk/Plantsci/teaching/content.html

All lectures take place in the *Tom ap Rees Lecture Room of the Department of Plant Sciences* unless otherwise stated**Module M1: Frontiers in Plant-Microbe Interactions**

Module organiser: Dr John Carr

DR J. P. CARR, DR K. JOHNSTONE AND DR A. N. OTHER
M. W. F. 9 (Twenty-four lectures, beginning 8 Oct.)**Module M2: Plant Metabolism**

Module organiser: Dr Alison Smith

DR J. M. HIBBERD, DR A. G. SMITH, DR P. DUPREE AND PROF.
J. C. GRAY

M. W. F. 10 (Twenty-four lectures, beginning 8 Oct.)

Module M3: Dynamics, History and Future of Vegetation

Module organiser: Prof. Howard Griffiths

PROF. H. GRIFFITHS, DR E. V. J. TANNER, DR D. A. COOMES
AND DR O. RACKHAM

M. Tu. F.12 (Twenty-four lectures, beginning 8 Oct.)

Module M4: Transport and Signal Transduction

Module organiser: Prof. Roger Leigh

DR J. M. DAVIES, PROF. R. LEIGH, DR R. DAVENPORT AND DR

A. A. R. WEBB

Tu. Th. 9, W.12 (Twenty-four lectures, beginning 7 Oct.)

Module L1: Development of Plants and Fungi

Module organiser: Dr David Hanke

DR J. DAVIES, DR J. HASELOFF, DR D. E. HANKE
AND DR B. J. GLOVERM. W. F. 9 (Twenty-four lectures, beginning
21 Jan.)**Module L2: Plant Responses to the Environment**

Module organiser: Dr Edmund Tanner

DR E. V. J. TANNER, DR R. DAVENPORT, PROF. H.
GRIFFITHS AND DR D. A. COOMESM. W. F. 10 (Twenty-four lectures, beginning
21 Jan.)**Module L3: Variation and Evolution**

Module organiser: Prof. John Parker

PROF. J. S. PARKER AND DR T. M. UPSON

M. 11, Tu. Th. 9 (Twenty-four lectures,
beginning 20 Jan.)**Module L4: Plant Genes and Organelles**

Module organiser: Prof. John Gray

DR A. SMITH, PROF. JOHN GRAY, DR K. WILLEY
AND DR P. DUPREETu. Th. 10, W 11 (Twenty-four lectures,
beginning 20 Jan.)**Module L5: Frontiers in Microbial Physiology and Ecology**

Module organiser: Dr Keith Johnstone

DR K. JOHNSTONE, DR J. M. DAVIES, DR K.
MAXWELL AND DR A. N. OTHERM. W. F. 12 (Twenty-four lectures, beginning,
21 Jan.)

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2004

LENT 2005

EASTER 2005

PLANT SCIENCES (continued)

The modules below may also be offered in Part II Plant Sciences:

Population Biology

Interdepartmental Module

Module organiser: Dr A. Manica (email:
am315@cam.ac.uk)

DR A. MANICA, DR A. FENTON, DR W. AMOS, DR R.

JOHNSTONE, DR S. DALL AND DR D. A. COOMES

M. W. F. 5 (Twenty-four lectures, beginning 8 Oct.)

*Department of Zoology, Lecture Theatre (Part II)***Aquatic Ecology***Department of Zoology*Module organiser: Dr R. S. K. Barnes (email:
r.barnes@zoo.cam.ac.uk)

DR M. BROOKE, DR D. ALDRIDGE, DR R. S. K. BARNES AND

DR A. CLARKE

M. W. F. 11 (Twenty-four lectures, beginning 8 Oct.)

Conservation Biology

Inter-departmental Module

Module organiser: Dr M. Brooke (email:
m.brooke@zoo.cam.ac.uk)

DR M. BROOKE, DR I. HODGE, DR W. AMOS, DR D.

A. COOMES, DR R. GREEN, DR E. TANNER,

DR J. O'SULLIVAN AND DR J. BRASWARES

M. W. F. 4 (Twenty-four lectures, beginning
21 Jan.) *Department of Zoology, Main
Lecture Theatre***Behavioural Ecology***Department of Zoology*Module organiser: Dr R. A. Johnstone (email:
r.a.johnstone@zoo.cam.ac.uk)

PROF. N. B. DAVIES, DR R. A. JOHNSTONE, DR R.

KILNER, PROF. T. H. CLUTTON-BROCK AND

DR W. A. FOSTER

Tu. Th. Sa.10 (Twenty-four lectures, beginning
20 Jan.) *Department of Zoology, Main
Lecture Theatre*

The following non-examined module is compulsory in Part II Plant Sciences:

Statistics for Part II Biologists

DR B. J. MCCABE

(4 Oct.) M. 9 and 2, M. Tu. W. Th. F. 2 (Eight lectures,
5–14 Oct.) *Large Lecture Theatre, Department of
Plant Sciences**Please note early start of course.***Practical work**(Ten classes) M. W. F. 10–12 or 3–5 (4, 6, 8 Oct.); M. W. F.
3–5 (11, 13, 15, 18 Oct.) *The Titan Teaching Rooms,
New Museums Site**Please note early start of course*

PSYCHOLOGY

Course Organiser: Dr J. Russell E-mail: jrl11@hermes.cam.ac.uk

Lectures will be held in the *Lecture Theatre, Department of Experimental Psychology* unless otherwise stated**General Courses**

PROF. T. W. ROBBINS

General Introduction. Th. 9 (One lecture, 7 Oct.)

DR M. R. F. AITKEN

Statistics. W. Th. F. 2 (Six lectures, 7–14, 20–21 Oct.)

Practical Classes. M. 2–4 (Two classes, 11, 18 Oct.),

W. 2–4 (One class, 27 Oct.) *Physiology Lecture
Theatre 3*Advanced Statistics. W. Th. 2 (Four lectures,
17–25 Nov.)Practical Classes. M. 2–4 (Two classes, 22, 29 Nov.)
Practical Classroom

DR G. J. DIGIROLAMO

Experimental Design. Th. 2–4 (One class, 28 Oct.)

Section A

PROF. B. C. J. MOORE

Hearing. Th. 10 (Eight lectures, beginning 7 Oct.),
M. 9 (Eight lectures, beginning 11 Oct.)

PROF. J. D. MOLLON

Vision. Tu. 10 (Eight lectures, beginning 12 Oct.)

DR G. J. DIGIROLAMO

Attention, Cognition and Control. Th. 12 (Eight
lectures, beginning 7 Oct.)

DR G. J. DAVIS

Visual Cognition. M. 12 (Eight lectures, beginning
11 Oct.)

PROF. M. P. HAGGARD

Specialised and Advanced Topics in
Psychological Research Methods. Tu. 5
(Five lectures, 18 Jan. – 15 Feb.)

PROF. J. D. MOLLON

Writing a Project Report. M. 5 (One class,
7 Feb.)

PROF. J. D. MOLLON

Vision. Th. 10 (Eight lectures, 20 Jan. – 17
Feb., 3–17 Mar.)

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2004

LENT 2005

EASTER 2005

PSYCHOLOGY (continued)

Section B

PROF. N. J. MACKINTOSH
Intelligence. F. 12 (Eight lectures, beginning 8 Oct.)

Section C

PROF. B. J. EVERITT AND PROF. T. W. ROBBINS
Brain Mechanisms of Motivation. M. W. 10 (Fourteen lectures, 11–20 Oct., 1 Nov. – 1 Dec.)

PROF. A. DICKINSON
Comparative Psychology. Tu. W. 12 (Sixteen lectures, beginning 12 Oct.)

DR N. S. CLAYTON
Comparative Psychology of Learning and Cognition. F. 11 (Seven lectures, 8 Oct. – 12 Nov., 26 Nov.)

Section D

DR J. RUSSELL
Cognitive Development. F. 10 (Eight lectures, beginning 8 Oct.)

DR J. STEVENSON-HINDE AND COLLEAGUES
Temperament and Attachment. M. W. 5 (Eight lectures, 11 Oct.–3 Nov.)

PROF. S. BARON-COHEN
Abnormal Psychology: Cognitive Perspectives. W. 11 (Eight lectures, beginning 13 Oct.)

DR E. WEISBLATT
Trauma, Development and Psychiatry. Th. 5 (Four meetings, 4–25 Nov.)

DR L. BROSAN
Clinical Aspects of Abnormal Psychology. Tu. 5 (Four meetings, 9–30 Nov.)

Attention is drawn to lectures given by Prof. J. Forrester on Freud, Psychoanalysis and the Twentieth-Century. W. 11 (Eight lectures beginning 13 Oct.) and Th. 11 (Four lectures beginning 10 Nov.), *Department of History and Philosophy of Science.*

DR I. P. L. MCLAREN
Learning, Memory and Cognition. M. Th. 12 (Fourteen lectures, 17 Jan. – 17 Feb., 28 Feb. – 10 Mar.)

DR I. P. L. MCLAREN
Connectionism. Tu. 12 (Seven lectures, 18 Jan. – 15 Feb., 1–8 Mar.)

TO BE ANNOUNCED
Psycholinguistics. W. 11 (Eight lectures, 19 Jan. – 16 Feb., 2–16 Mar.)

DR F. PULVERMÜLLER
Neurophysiology of Language Processing in the Brain. F. 10 (Four lectures, 21 Jan. – 11 Feb.)

DR R. N. CARDINAL
Brain Mechanisms of Cognition. M. 10 (Six lectures, 17 Jan. – 14 Feb., 28 Feb.)
Physiology Main Lecture Theatre

DR L. M. SAKSIDA
Neural Networks and Brain Function. M. 11 (Eight lectures, 17 Jan. – 14 Feb., 28 Feb. – 14 Mar.)

DR T. BAK AND DR A. CALDER
Cognitive Neuropsychology. Tu. 10 (Eight lectures, 18 Jan. – 15 Feb., 1–15 Mar.)
Physiology Main Lecture Theatre

DR N. S. CLAYTON
Comparative Psychology of Learning and Cognition. F. 11 (Eight lectures, 21 Jan.–18 Feb., 4–18 Mar.)

PROF. B. J. EVERITT
Abnormal Psychology: Biological Perspectives. W. 10 (Six lectures, 19 Jan. – 16 Feb., 2 Mar.)

DR J. RUSSELL
Language Acquisition. F. 12 (Eight lectures, 21 Jan. – 18 Feb., 4–18 Mar.)

DR P. FLETCHER
Cognitive Neuropsychiatry. F. 10 (Four lectures, 18 Feb., 4–18 Mar.)

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2004

LENT 2005

EASTER 2005

ZOOLOGY

Course Organiser: Dr H. Skaer E-mail: h. skaer@zoo.cam.ac.uk

Lectures will be given in the *Department of Zoology Part II Lecture Theatre* unless otherwise stated**Topics in Vertebrate Evolution**

Module organiser: Dr J. A. Clack

DR J. CLACK, DR A. FRIDAY, DR H. BLOM, DR A. MILNER, DR
E. RAYFIELD, DR M. WILKINSON, DR P. BARRETT AND
DR L. NOË

M. W. F. 10 (Twenty-four lectures, beginning 8 Oct.)

Aquatic Ecology

Module organiser: Dr R. S. K. Barnes

DR M. BROOKE, DR D. ALDRIDGE, DR R. BARNES AND PROF.
A. CLARKE

M. W. F. 11 (Twenty-four lectures, beginning 8 Oct.)

Population Biology

Module organiser: Dr A. Manica

DR A. MANICA, DR A. FENTON, DR W. AMOS, DR R.
JOHNSTONE, DR S. DALL AND DR D. COOMES

M. W. F. 5 (Twenty-four lectures, beginning 8 Oct.)

Neural Mechanisms of Behaviour

Module organiser: Dr B. Hedwig

PROF. S. LAUGHLIN, PROF. M. BURROWS, DR B. HEDWIG, DR B.
MCCABE, PROF. E. KEVERNE AND PROF. M. BATE

Tu. Th. Sa. 11 (Twenty-four lectures, beginning 7 Oct.)

Behaviour

Module organiser: Prof. E. B. Keverne

PROF. P. BATESON, DR B. MCCABE, PROF. E. KEVERNE, DR N.
EMERY AND DR N. MUNDY

Tu. Th. 9, Sa. 10 (Twenty-four lectures, beginning 7 Oct.)

Cell Dynamics and Communication

Module organiser: Dr H. Skaer

DR H. SKAER, DR J. RAFF, DR R. DUDEN, PROF. M. ROBINSON,
PROF. P. LUZIO, DR J. VINCENT, DR H. BAYLIS, PROF. P.
SIMPSON AND OTHERS

M. W. F. 4 (Twenty-four lectures, beginning 8 Oct.)

Control of Cell Growth and Genome Stability

Module organiser: Prof. S. P. Jackson

DR J. PINES, PROF. S. JACKSON, DR J. PINES, DR J. RAFF, DR
M. JACKMAN, PROF. S. JACKSON, DR J. FALCK, DR T.
KRUDE, DR M. MADINE AND DR T. LITTLEWOOD

M. W. F. 9 (Twenty-four lectures, beginning 10 Oct.)

Mammalian Evolution and Faunal History

Module organiser: Dr A. E. Friday

DR A. FRIDAY, DR E. WESTON AND DR R. PREECE
M. W. F. 10 (Twenty-four lectures, beginning
21 Jan.)**Conservation Biology**

Module organiser: Dr M. Brooke

DR M. BROOKE, DR I. HODGE, DR W. AMOS, DR D.
COOMES, DR R. GREEN, DR E. TANNER, DR
J. O'SULLIVAN AND DR J. BRASHARESM. W. F. 4 (Twenty-four lectures, beginning
21 Jan.) *Main Lecture Theatre***Behavioural Ecology**

Module organiser: Dr R. A. Johnstone

PROF. N. DAVIES, DR R. JOHNSTONE, DR R.
KILNER, PROF. T. CLUTTON-BROCK AND DR
W. FOSTERTu. Th. Sa. 10 (Twenty-four lectures,
beginning 20 Jan.) *Main Lecture Theatre***Animal Energetics: the cost of living**

Module organiser: Prof. C. Ellington

PROF. C. ELLINGTON, DR T. WEST, PROF. L. PECK
AND PROF. A. CLARKETu. Th. Sa. 11 (Twenty-four lectures,
beginning 20 Jan.)**Genes, Genomes and Animal Evolution**

Module organiser: Prof. M. Akam

PROF. M. AKAM, DR W. AMOS, DR A. FRIDAY, DR M.
TELFORD AND DR N. MUNDYM. W. F. 11 (Twenty-four lectures, beginning
21 Jan.)**Developmental Biology**

Module organiser: Prof. P. Simpson

PROF. P. SIMPSON, DR H. SKAER, DR H. BAYLIS
AND PROF. M. AKAMM. W. F. 5 (Twenty-four lectures, beginning
21 Jan.)**Control of Gene Expression**

Module organiser: Dr T. Krude

DR T. KRUDE, DR M-E. TORRES-PADILLA, DR A.
BANNISTER, DR C. ALONSO, DR J. DOWNS,
DR D. SCADDEN, DR H. BAYLIS, DR C. SMITH
AND PROF. R. JACKSONM. W. F. 9 (Twenty-four lectures, beginning
21 Jan.) First nine lectures in the
Department of Zoology; the following
fifteen lectures take place in the
Department of Biochemistry**Human Biology**

Module organiser: Prof. T. H. Clutton-Brock

PROF. T. CLUTTON-BROCK, PROF. S. JACKSON, DR
A. FRIDAY, DR B. MCCABE, DR R.

JOHNSTONE, DR N. MUNDY AND OTHERS

M. W. F. 10 (Seven lectures, beginning
29 Apr.)