

NATURAL SCIENCES TRIPOS, PART II

MICHAELMAS 2005

LENT 2006

EASTER 2006

ANATOMY OPTION A: RESEARCH IN DEVELOPMENTAL BIOLOGY AND NEUROSCIENCE

Course Organiser: Dr R. C. Hardie (email: rch14@cam.ac.uk)
 Course Website: www.anat.cam.ac.uk/teaching/anatomya.html

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 Thursdays & Fridays 9–11.30; Wednesdays 9-12

DR R. ADAMS AND DR R. C. HARDIE
 General Introduction. Tu. 10–12 (4 Oct.)
 Course Introduction. W. 10–12 (5 Oct.)

Research in Developmental Biology

PROF. J. HERBERT AND DR P. SCHOFIELD (Cu)
 Experimental Approaches: Systems. (6, 7, 12 Oct.)
 MRS P. HENDERSON
 Working in Groups. (10 Oct. 2–4)
 DR R. WHITE AND DR S. JONES (Cu)
 Experimental Approaches: Cells and Molecules. (13, 14,
 19 Oct.)
 DR R. J. KEYNES (Cu)
 Seminar Skills (17 Oct. 10–12)
 PROF. M. H. JOHNSON (Cu)
 Making an Embryo. (21, 26 Oct.)
 DR R. ADAMS (Cu)
 Gastrulation. (27, 28, Oct., 2 Nov.)

Study Week (3–9 Nov.)

DR C. BAKER AND DR S. BRAY (Cu)
 Making a Neuron. (10, 11, 16 Nov.)
 DR K. LEWIS AND DR D. TANNAHILL (Cu)
 Patterning the Nervous System. (17, 18, 23 Nov.)
 DR G. M. W. COOK AND PROF. C. HOLT (Cu)
 Guiding Axons. (24, 25, 30 Nov.)
 DR G. BURTON
 Data Handling. (29 Nov. 10–12)

Research in Neuroscience

PROF. J. HERBERT AND DR P. SCHOFIELD (Cu)
 Experimental Approaches: Systems. (6, 7, 12 Oct.)
 MRS P. HENDERSON
 Working in Groups. (10 Oct. 2–4)
 DR R. WHITE AND DR S. JONES (Cu)
 Experimental Approaches: Cells and Molecules. (13, 14,
 19 Oct.)
 DR R. KEYNES
 Seminar Skills (17 Oct. 10–12 a.m.)
 DR R. C. HARDIE AND DR R. ADAMS (Cu)
 The Neuron. (20, 21, 26 Oct.)
 DR S. EDGLEY AND DR S. JONES (Cu)
 Brain Organisation. (27, 28 Oct. 2 Nov.)

Study Week (3–9 Nov.)

DR C. BAKER AND DR S. BRAY (Cu)
 Making a Neuron. (10, 11, 16 Nov.)
 DR K. LEWIS AND DR D. TANNAHILL (Cu)
 Patterning the Nervous System. (17, 18, 23 Nov.)
 DR G. M. W. COOK AND PROF. C. HOLT (Cu)
 Guiding Axons. (24, 25, 30 Nov.)
 DR G. BURTON
 Data Handling. (29 Nov. 10–12)

DR C. BAKER (Cu)
 Cell Migration and Fate. (19, 20, 25 Jan.)
 DR P. SCHOFIELD (Cu)
 Tissue Diversity. (26, 27 Jan., 1 Feb.)
 DR N. J. BROWN AND DR A. BRAND (Cu)
 Organogenesis and Morphogenesis. (2, 3,
 8 Feb.)
 DR R. WHITE (Cu)
 Stem Cells. (9, 10, 15 Feb.)
 DR R. DYBALL AND DR R. ADAMS
 Project write-up. (14 Feb. 2–4 p.m.)

Study Week. (16–22 Feb.)

DR A. FERGUSON-SMITH (Cu)
 Epigenetic Control of Development. (23, 24
 Feb., 1 Mar.)
 DR R. J. KEYNES AND DR M. SPILLANTINI (Cu)
 Brain Degeneration and Repair. (2, 3, 8 Mar.)
 DR A. WILKINS
 Evolution and Development. (9, 10 Mar. 2–4)

DR R. C. HARDIE (Cu)
 Phototransduction. (19, 20, 25 Jan.)
 DR R. DYBALL AND DR S. EDGLEY (Cu)
 Encoding Information in Neurons. (26, 27 Jan.,
 1 Feb.)
 DR S. JONES (Cu)
 Neurobiology of Addiction. (2, 3, 8 Feb.)
 DR W. SCHULTZ (Cu)
 Frontal lobes. (9, 10, 15 Feb.)
 DR R. DYBALL AND DR R. ADAMS
 Project write-up. (14 Feb. 2–4)

Study Week (16–22 Feb.)

DR A. ROBERTS (Cu)
 Emotion. (23, 24 Feb., 1 Mar.)
 DR R. J. KEYNES AND DR M. SPILLANTINI (Cu)
 Brain Degeneration and Repair. (2, 3, 8 Mar.)
 PROF. J. HERBERT
 How the Brain Handles Stress (9, 10 Mar.
 10–12)

Seminars As Announced in the Department

DR R. ADAMS
 Critique of Papers. (26 Apr., 2–4)
Note the early start to this course.
 DR R. ADAMS
 Experimental Design. (3 May, 2–4)
 DR P. SCHOFIELD
 Critique of Papers. (10 May, 2–4)
 DR C. BAKER
 Experimental Design. (17 May, 2–4)

DR S. JONES
 Critique of Papers. (26 April, 10–12)
 PROF. W. A. HARRIS
 Experimental Design. (3 May, 10–12)
 DR R. C. HARDIE
 Critique of Papers. (10 May, 10–12)
 DR S. EDGLEY
 Experimental Design. (17 May, 10–12)

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2005

LENT 2006

EASTER 2006

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

Course Organiser: Professor M. H. Johnson (email: mhj@mole.bio.cam.ac.uk)
 Course Website: www.anat.cam.ac.uk/teaching/anatomyb/

All 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 four modules:

- Module 1: Professional Skills & Development
- Module 2: Sexuality & Fertility
- Module 3: Mental Health & Disease
- Module 4: Genomics & the Future of Medicine

Workshops, Seminars and Journal Clubs. As announced in the Department, beginning 5 Oct.

ASTROPHYSICS

Course Website: www.ast.cam.ac.uk/teaching/undergrad/courseguide.html

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
 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)
MR2

PROF. R. F. CARSWELL
 Stellar Dynamics and Structure of Galaxies.
 M, F, 9, W, 11.15
 DR R. G. MCMAHON
 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 2005

LENT 2006

EASTER 2006

BIOCHEMISTRY
BIOLOGICAL AND BIOMEDICAL SCIENCES: MAJOR SUBJECT BIOCHEMISTRY

Course Organiser: Prof. D. J. Ellar (email dje1@mole.bio.cam.ac.uk)
 Course Website: www.bioc.cam.ac.uk/teaching/partii/

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. 3 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.

The Biological and Biomedical Sciences (Major Subject Biochemistry) course consists of the core lectures in the Michaelmas Term and two options in the Lent Term.

Core lectures

- PROF. E. D. LAUE
 Aspects of Protein Structure: Genome to Proteome. (Five lectures, beginning 3 Oct.)
Please note the early start to this course.
- DR M. WELCH
 Thermodynamics Refresher for Biochemists. (One lecture, 7 Oct.)
- DR K. WEISSMAN
 Chemistry Refresher for Biochemists. (One lecture, 7 Oct.)
- DR C. W. J. SMITH
 Eukaryotic mRNA Synthesis. (Five lectures, beginning 10 Oct.)
- DR C. J. HOWE
 Gene Expression in Plants. (Four lectures, beginning 10 Oct.)
- DR D. M. CARRINGTON
 Introduction to Problem-Based Bioinformatics Project. (One lecture, Oct. 10)
- DR D. M. CARRINGTON
 DNA Recombination in Genetic Exchange and Gene Expression. (Four lectures, beginning 17 Oct.)
- PROF. G. P. C. SALMOND
 Bacterial Signalling Systems. (Four lectures, beginning 17 Oct.)
- DR T. R. HESKETH
 Signalling Pathways in Eukaryotic Cells. (Four lectures, beginning Oct. 21)
- DR P. DUPREE
 Protein Targeting to the ER. (Three lectures, beginning 21 Oct.)
- DR K. MIZUGUCHI
 Bioinformatics: Polypeptide Similarity, Families and Super-Families. (Two lectures, beginning 27 Oct.)
- DR A. A. GRACE
 Disease Genes: Function and Manipulation. (Three lectures, beginning 31 Oct.)
- PROF. R. J. JACKSON
 Protein Synthesis and Translational Control. (Five lectures, beginning 31 Oct.)
- DR A. NEVES
 Molecular Imaging. (Three lectures, beginning 26 Oct.)
- DR D. OWEN
 G Protein-Based Signalling. (Four lectures, beginning 3 Nov.)
- DR K. WEISSMAN
 Enzyme Structure and Function. (Five lectures beginning 7 Nov.)
- PROF. T. L. BLUNDELL
 G Protein-Based Signalling. (Two lectures, beginning 7 Nov.)
- DR A. P. JACKSON
 Protein Sorting. (Five lectures, beginning 11 Nov.)
- PROF. J. O. THOMAS
 Protein-DNA Interactions and Gene Expression. Five lectures, beginning 14 Nov.)
- DR R. W. FARNDAL
 Adhesive and Immune Receptor Signalling. (Four lectures, beginning 18 Nov.)
- DR S. H. MCLAUGHLIN
 Protein Folding *in vivo*. (Three lectures, beginning 21 Nov.)
- DR S. D. BELL
 Eukaryotic Chromosome Replication. (Three lectures, beginning 22 Nov.)
- DR G. C. BROWN
 Bioenergetics of the Cell. (Five lectures, beginning 28 Nov.)
- DR T. HUBBARD
 Bioinformatics: Large Scale Sequencing Projects. (Two lectures, beginning 28 Oct.)
- DR A. M. TOLKOVSKY
 Apoptosis, From Molecules to Function in Disease. (Three lectures, beginning 30 Nov.)

Data handling classes

2.30–4.00, 28 Oct., 3 Nov.

Options lectures

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

Data handling classes

3–3.45, 20, 27 Jan.

continued >

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2005

LENT 2006

EASTER 2006

BIOLOGICAL AND BIOMEDICAL SCIENCES

Course Website: www.bio.cam.ac.uk/sbs/facbiol/bbs/index.html

All students offer a Major Subject, a Minor Subject and a dissertation.

Major Subjects: Unless marked with a *, Major Subjects take their lectures from the corresponding NST Part II subject.

| | |
|------------------------------------|--------------|
| Biochemistry | (see p. 183) |
| Genetics | (see p. 189) |
| History and Sociology of Medicine* | |
| Mechanisms of Disease* | |
| Pathology | (see p. 194) |
| Pharmacology | (see p. 195) |
| Physiology | (see p. 196) |
| Plant Sciences | (see p. 198) |
| Psychology | (see p. 199) |
| Zoology | (see p. 201) |

Minor Subjects: Unless marked with a *, Minor Subjects take their lectures from the related NST Part II subject.

| | |
|---------------------------------|--|
| Biology of Parasitism* | |
| Biological Anthropology* | (Any of Papers B3, B4 or B5 from Part IIB Biological Anthropology – see p. 216) |
| Education* | Any of the following papers from Part II of the Education Studies Tripos: Psychology of Education, Sociology of Education, Philosophy of Education, History of Education – see p. 232) |
| History of Science and Medicine | (Either Paper 7 or Paper 8 from NST Part II History and Philosophy of Science – see p. 192) |
| Medicine, Ethics and Law* | |
| Medicine, Body and Society* | (Paper Soc 10 of Part IIB of the Social and Political Sciences Tripos – see p. 122) |
| Genetics | (Any of Modules M2, M4, or M5 from NST Part II Genetics – see p. 189) |
| Physiology | (Any of Modules 3, 4 or 6 from NST Part II Physiology – see p. 197 & 198) |

MAJOR SUBJECTS

HISTORY AND SOCIOLOGY OF MEDICINE

Course Organisers: Dr L. Kassell (HPS) (email: ltk21@cam.ac.uk) and Dr D. Weinberg (SPS) (email: dtw23@cam.ac.uk)

This course is offered jointly by the Departments of History and Philosophy of Science and the Faculty of Social and Political Sciences and consists of lectures from the following papers:

Papers 7 and 8 of NST Part II History and Philosophy of Science (see p. 192)
Papers Soc 10 and Int 5 of Part IIB of the Social and Political Sciences Tripos (see p. 122 & 124)

MECHANISMS OF DISEASE: FROM PROCESS TO PATIENT

Course Organisers: Dr J.H. Xuereb (email: jhx1000@cam.ac.uk) and Dr A. Ibrahim (email: aeik2@cam.ac.uk)**Lectures** will be held at 10.30 a.m. daily in the *Lecture Theatre, Ground Floor, Department of Pathology, Tennis Court Road*, unless otherwise indicated.**Seminars and Case Studies** will be held in the same venue at 1.30 p.m. unless otherwise indicated.

DR J. H. XUEREB

Introduction to course. 4 Oct.

An introduction to dissertations (Seminar) 4 Oct.***

Infectious disease and Immunodeficiency*Note the early start to this course.*

DR N. BROWN

W. 5 Oct.: Sepsis and the host's response to infection

DR T. BAGLIN

W. 5 Oct.: Disseminated intravascular coagulation
(*Case study*)**

DR M. FARRINGTON

Th. 6 Oct.: Pneumonia – racing against the escalator.

PROF. A. LEVER

Th. 6 Oct.: Molecular biology of human
immunodeficiency virus

DR M. FARRINGTON AND DR T. WREGHITT

F. 7 Oct.: Infection in the immunocompromised host
(*Case study*)**Tumour Biology***Note the early start to this course*

DR H. SIMPSON

Tu. 17 Jan.: Thyroid cancer

DR M. GURNELL

Tu. 17 Jan.: Approach to the problem of an
enlarged thyroid gland (*case study*)

DR M. ARENDS

W. 18 Jan.: Familial predisposition to cancer:
colorectal cancer.

DR J. H. XUEREB

W. 18 Jan.: Hypertension and
neurofibromatosis (*Case study*)

PROF. C. CALDAS

Th. 19 Jan.: Molecular biology of breast cancer

Skin*Note the early start to this course*

DR J. STERLING

M. 24 Apr.: Normal and abnormal skin
structureM. 24 Apr.: *Dissertation Presentations*
(*students*) 1.30 p.m.

Tu. 25 Apr.: Skin as a renewable organ

Tu. 25 Apr.: *Dissertation Presentations*
(*students*) 1.30 p.m.

W. 26 Apr.: Skin as an organ of immunity

W. 26 Apr.: *Dissertation Presentations*
(*students*) 1.30 p.m.Th. 27 Apr.: Disorders of the skin immune
systemTh. 27 Apr.: *Dissertation Presentations*
(*students*) 1.30 p.m.F. 28 Apr.: *Dissertation Presentations*
(*students*) 10.30 a.m.

DR N. BURROWS

F. 28 Apr.: Ehlers-Danlos syndrome (*case*
study) (at 2 p.m.)

*Seminar Room 9, Ground Floor, The Clinical School, Addenbrooke's Hospital

**Seminar Room, First Floor, Department of Pathology

***Greaves Room, First Floor, Department of Pathology

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2005

LENT 2006

EASTER 2006

I. KUNN
F. 7 Oct.: Electronic literature searches * (*Seminar*) – group 1

PROF. A. LEVER
M. 10 Oct.: Pathogenesis of AIDS

DR A. CARMICHAEL
Tu. 11 Oct.: Immunological controls of HIV infection

I. KUNN
Tu. 11 Oct.: Electronic literature searches * (*Seminar*) – group 2

DR D. KUMARARATNE
W. 12 Oct.: Mechanisms of immunity to mycobacteria in humans

DR J. H. XUERE
W. 12 Oct.: An introduction to dissertations***

DR D. KUMARARATNE
Th. 13 Oct.: Immunodeficiency – molecular mechanisms I

DR D. KUMARARATNE
Th. 13 Oct.: Immunodeficiency – molecular mechanisms II

DR J. H. XUERE
F. 14 Oct.: AIDS in mother and child (*Case study*)

PROF. A. LEVER
M. 17 Oct.: HTLV – infection and pathogenesis

PROF. M-Q. DU
M. 17 Oct.: How to assess a scientific paper (*Seminar*)

DR D. KUMARARATNE
Tu. 18 Oct.: Vaccines against bacterial meningitis

PROF. A. LEVER
W. 19 Oct.: Microbial invasion of the central nervous system

PROF. A. MINSON
Th. 20 Oct.: The nature of prions

DR J. H. XUERE
F. 21 Oct.: Phenotypic spectrum of spongiform encephalopathy

Autoimmune disease and immunological malignancy

DR J. BRADLEY
M. 24 Oct.: Vascular endothelium – physiology and pathophysiology

DR A. EXLEY
M. 24 Oct.: The mucosal immune system [At 1.30 pm]
Tu. 25 Oct.: Lung defence: insight from clinical cases (*Case Study*) [At 10.30 am]

DR R. TOOZE
W. 26 Oct.: Lymphoma: an immunological perspective I
Th. 27 Oct.: Lymphoma: an immunological perspective II

DR A. IBRAHIM
Th. 27 Oct.: Hereditary angioneurotic oedema (*Case study*)

PROF. J. H. GASTON
F. 28 Oct.: The role of HLA antigens in the pathogenesis of arthritis
F. 28 Oct.: T Lymphocytes and joint inflammation [At 1.30 pm]

DR J. H. XUERE
M. 31 Oct.: Acute mono-arthritis (*Case study*) [At 10.30 am]
M. 31 Oct.: Polyarthrits (*Case study*)

PROF. J. H. GASTON
Tu. 1 Nov.: Cytokines in arthritis – potential therapeutic targets
W. 2 Nov.: Infectious agents and arthritis: Lyme disease and reactive arthritis

DR J. XUERE
Th. 3 Nov.: The syndromes produced in renal injury (*Case study*) [At 10.30 am]

DR K. G. SMITH
M. 7 Nov.: Systemic lupus erythematosus I
M. 7 Nov.: Systemic lupus erythematosus II [At 1.30 pm]

DR J. XUERE
Tu. 8 Nov.: Inflammation in the CNS

DR A. IBRAHIM
Tu. 8 Nov.: Supervision

DR J. XUERE
Th. 10 Nov.: Aetiology and pathogenesis of demyelinating diseases
Th. 10 Nov.: Clinico-anatomical correlation in multiple sclerosis (*Case study*)

DR A. CLUROE
Th. 19 Jan.: A lump in the breast: a multidisciplinary approach to cancer (*Case study*)

DR M. ARENDS
F. 20 Jan.: Infection and cancer: molecular biology of cervical cancer

PROF. A. GREEN
M. 23 Jan.: Leukaemia I: transcriptional regulation of haemopoiesis
Tu. 24 Jan.: Bullous skin disease (*Case study*)

DR J. CRAIG
Tu. 25 Jan.: Pathogenesis and management of leukaemia (*Case study*) [At 2 pm]

DR C BACON
Th. 26 Jan.: Coronary artery disease (*Case study*) [At 11.45 am following 10.30 am lecture]

PROF. V. P. COLLINS
F. 27 Jan.: Supervision

DR J. H. XUERE
F. 27 Jan.: Ischaemic cardiomyopathy

DR A. WHITEHEAD
M. 30 Jan.: Infectious endocarditis (*Case study*)

DR J. H. XUERE
M. 30 Jan.: TBA

Transplantation

DR C. TAYLOR
Tu. 31 Jan.: Histocompatibility

PROF. A. BRADLEY
W. 1 Feb.: Immunobiology of transplantation and rejection I

DR. A. IBRAHIM
W. 1 Feb.: Supervision

PROF. A. BRADLEY
Th. 2 Feb.: Immunobiology of transplantation and rejection II
F. 3 Feb.: Molecular basis of immunosuppression I
M. 6. Feb.: Molecular basis of immunosuppression II

DR J. H. XUERE
M. 6 Feb.: Dissertations: writing up (*Seminar*)***

DR E. BOLTON
Tu. 7 Feb.: Immunological tolerance in transplantation

PROF. A. BRADLEY
W. 8 Feb.: Xenotransplantation
Th. 9 Feb.: Long term outcome of transplantation

DR A. CHAUDHRY
Th. 9 Feb.: A kidney graft for complications of Diabetes Mellitus (*case study*)

DR S. CHANDRAN
F. 10 Feb.: Neural repair and stem cells – I
M. 13 Feb.: Neural repair and stem cells – II

Gestational, Paediatric and Inherited Diseases

DR S. CHARNOCK-JONES
Tu. 14 Feb.: Placental vascular morphogenesis
W. 15 Feb.: Gestational trophoblastic disease
Th. 16 Feb.: Pathogenesis of pre-eclampsia

DR J. WHITTAKER
Th. 16 Feb.: Diagnosis of genetic disease (*Case study*)

DR K. ONG
F. 17 Feb.: Fetal and early infant development

DR A. WHITEHEAD
M. 20 Feb.: Pathophysiology of disease in the premature baby

DR C. ACERINI
Tu. 21 Feb.: Growth disorders of childhood

DR R. ILES
W. 22 Feb.: Molecular and cell biology of cystic fibrosis

DR I. HUGHES
Th. 23 Feb.: Disorders of sex development

DR D. O'DONOVAN
F. 24 Feb.: Biology and pathology of muscular dystrophy

The Circulation

DR C. SHANAHAN
Tu. 2 May: Atherosclerosis

DR J. STERLING
Tu. 2 May: Pathogenesis and management of leukaemia (*Case study*) [At 2 pm]

PROF. M. BENNETT
W. 3. May: Pathobiology of intervention in coronary artery disease [At 10.30 am]
W. 3. May: Cerebral gliomas: the pathway and molecular biology

DR A. IBRAHIM
Th. 4 May: Clinical-anatomical correlation of pituitary adenoma (*Case study*)

DR M. GODDARD
F. 5 May: Ischaemic cardiomyopathy

DR J. H. XUERE
F. 5. May: Infectious endocarditis (*Case study*)

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2005

LENT 2006

EASTER 2006

DR B. COTTRELL

F. 11 Nov.: Infection & immunity in inflammatory bowel disease

F. 11 Nov.: Inflammatory bowel disease (*Case study*)**Endocrine and Metabolic Disease**

PROF. K. CHATTERJEE

Tu. 15 Nov.: Principles of nuclear hormone action

Tu. 15 Nov.: Nuclear receptors in human disease
[At 1.30 pm]W. 16 Nov.: Cushing's syndrome (*Case study*)

[At 10.30 am]

DR A. CHAUDHRY

W. 16 Nov.: The kidney as an endocrine organ.

[At 1.30 pm]

PROF. J. COMPSTON

Th. 17 Nov.: Bone cell physiology

M. 21 Nov.: Pathology of metabolic bone disease

DR J. H. XUERE

M. 21 Nov.: Paget's Disease (*Case study*)

PROF. S. O'RAHILLY

Tu. 22 Nov.: Understanding human obesity

W. 23 Nov.: How insulin works and how it goes wrong

DR A. CHAUDHRY

Th. 24 Nov.: Mechanisms of renal damage in diabetes mellitus

DR J. H. XUERE

Th. 24 Nov.: Fasting hypoglycaemia (*Case study*)

DR S. MIDDLETON

F. 25 Nov.: Gastrointestinal hormones and peptides

M. 28 Nov.: Carcinoid syndrome

DR M. GURNELL

Tu. 29 Nov.: Autoimmunity in the thyroid gland

DR J. H. XUERE

Tu. 29 Nov.: *Supervision*

PROF. T. COX

W. 30 Nov.: The lysosome – gateway to treatment

DR V. P. COLLINS

W. 30 Nov.: Mitochondrial encephalomyopathies

DR D. O'DONOVAN

Th. 1 Dec.: Peroxisomal disorders

DR N. COLEMAN

Th. 1 Dec.: Metabolic effects of cancer (*Case study*)

DR J. H. XUERE

F. 24 Feb.: Muscle weakness and wasting (*Case study*)

DR J. H. XUERE

Tu. 28 Feb.: *Supervision*

DR E. REID

Tu. 28 Feb.: Hereditary spastic paraplegia

Pathophysiology of some organ based / systemic diseases**Brain**

DR J. H. XUERE

W. 1 Mar.: Alzheimer's disease and related disorders: tau pathology

Th. 2 Mar.: Alzheimer's disease: amyloid deposition in the brain

F. 3 Mar.: Neurodegeneration & the ubiquitin-proteasome system – I

DR R. DAVIES

F. 3 Mar.: Tau-related dementia syndromes (*Case study*)

DR J. H. XUERE

M. 6 Mar.: Neurodegeneration & the ubiquitin-proteasome system – II

DR R. BARKER

M. 6 Mar.: Movement disorders (*Case study*)**Gastrointestinal hormones and peptides**

DR V. SAVE

Tu. 7 Mar.: Pathophysiology of *Helicobacter* infection

W. 8 Mar.: Coeliac disease: malabsorption & malignancy

W. 8 Mar.: Steatorrhoea (*Case Study*)**Hepatobiliary**

DR S. DAVIES

Th. 9 Mar.: Viral hepatitis I

DR S. DAVIES AND MR R. PRASEEDOM

Th. 9 Mar.: Jaundice (*Case study*)

DR S. DAVIES

F. 10 Mar.: Viral hepatitis II

F. 10 Mar.: Cirrhosis and liver failure (*Case study*)**Kidney**

DR A. CHAUDHRY

M. 13 Mar.: Pathophysiology of progressive renal disease

DR J. BRADLEY AND DR A. CHAUDHRY

M. 13 Mar.: End-stage renal failure (*Case study*)**Lung**

DR M. GODDARD

Tu. 14 Mar.: Pathophysiology of pulmonary microvasculature

DR S. STEWART

W. 15 Mar.: Respiratory tract hypersensitivity

DR R. ROSS-RUSSELL

W. 15 Mar.: Asthma and its consequences (*Case study*)

DR S. STEWART

Th. 16 Mar.: Irreversible airway narrowing & alveolar wall destruction

DR A. IBRAHIM

Th. 16 Mar.: *Supervision*

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2005

LENT 2006

EASTER 2006

MINOR SUBJECTS**BIOLOGY OF PARASITISM**

Course Organiser: Dr S. Lloyd (email: ssl1000@hermes.cam.ac.uk)

All lectures take place in the *Department of Pathology* on M. W. Th. 4 unless otherwise stated.

Lecture 1. Overview of developments. Basic morphology and life cycles
 Lectures 2–8. Behavioural adaptations for transmission, recognition of the host
 Lecture 9. Invertebrate responses to parasites
 Lectures 10–11. Season and hypobiosis
 Lecture 12. Endemic stability
 Lectures 13–19. Zoonoses
 Lecture 20–22. Pathophysiology and pathology
 Lecture 23. Immune responses to arthropods
 Lecture 24 Immune responses to gastrointestinal helminths

Lectures 25–29. Chemotherapy and resistance
 Lecture 30–32. Alternate methods of control

MEDICINE, ETHICS AND LAW

Course Co-ordinator: Mr S. John (email: sdj22@cam.ac.uk)

Further information may be obtained from the Web at <http://www.cam.ac.uk/medicalethics>

PROF. J. SPENCER AND OTHERS
 Medical Law. M4 Law Faculty
 MR S. JOHN AND OTHERS
 Medical Ethics. Tu. 4 Room A. Arts School,
 Bene't, Street

The same continued. M4 Law Faculty

The same continued. Tu. 4

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2005

LENT 2006

EASTER 2006

CHEMISTRY (OPTION A AND OPTION B)
PHYSICAL SCIENCES: HALF SUBJECT CHEMISTRYCourse Organiser: Dr J. H. Keeler (e-mail: jhk10@cam.ac.uk)
Course Website: www-teach.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. 4 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.uk

All students must attend an introductory talk concerning the practical course at 12 noon on W. 5 Oct. in the *Pfizer Lecture Theatre*EXPERIMENTAL AND THEORETICAL PHYSICS
PHYSICAL SCIENCES: HALF SUBJECT EXPERIMENTAL AND THEORETICAL PHYSICSCourse Organiser: Dr W. Allison (e-mail: II-physics@phy.cam.ac.uk)
Course Website: www.phy.cam.ac.uk/teaching/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 (5 Oct.) at 9.30 a.m. in the *Pippard Lecture Theatre*.

Students taking Part II Physical Sciences and Half Subject Experimental and Theoretical Physics will take the Advanced Quantum Physics course in the Michaelmas term and one of the Quantum Condensed Matter Physics, Astrophysics, Particle and Nuclear Physics, and Soft Condensed Matter and Biophysics courses in the Lent and Easter terms. Candidates also take three units of further work selected from: the Computational Physics course, pre-approved Vacation Work, experiment E1 or course TP1, experiment E2 or course TP2, a Literature Review, Physics in Action (two units), and Physics Education (two units). Neither of the courses TP1 and TP2 may be taken unless Mathematics was offered in Part IB of the Natural Sciences Tripos. A prior knowledge of Physics equivalent to the material covered in Part IB Physics will be assumed.

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)

PROF. M. C. PAYNE, DR P. D. HAYNES AND OTHERS
Computational Physics. Tu. Th. 9 (First eight lectures)
Classes weekdays 2–5 (6 Oct. – 30 Nov.). 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. LASENBY
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

DR M. P. HOBSON
Concepts in Physics. Tu. Th. 10 (Ten lectures
beginning 9 Feb.)

THE STAFF OF THE CAVENDISH LABORATORY
Current Research Work in the Cavendish
Laboratory (not examinable). See Part III
Experimental and Theoretical Physics
(p. 203)

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

PROF. S. F. GULL AND PROF. A. N. LASENBY
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

PROF. E. TERENTJEV AND DR C. H. W. BARNES
Theoretical Physics TP1. Tu. Th. 12–1 (Twelve lectures
beginning 11 Oct.); Tu. 2–4 (Four classes, 18 Oct.,
1 Nov., 15 Nov., 29 Nov.)

PROF. B. R. WEBBER AND DR T. DUKE
Theoretical Physics TP2. Tu. Th. 12–1
(Twelve lectures, beginning 24 Jan.);
Tu. 2–4 (Four classes, 31 Jan., 14 Feb., 28
Feb., 14 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*

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2005

LENT 2006

EASTER 2006

Course S

DR R. J. BUTCHER AND OTHERS
Experiment E1. Registration W. 9.30 (5 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 (18 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.

GENETICS

BIOLOGICAL AND BIOMEDICAL SCIENCES: MAJOR AND MINOR SUBJECT GENETICS

Course Organisers: Dr M. Segal and Dr C. Farr (email: partII.organisers@gen.cam.ac.uk)
Course Website: www.gen.cam.ac.uk/

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

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

The Biological and Biomedical Sciences (Major Subject Genetics) course consists of a choice of four out of the five modules outlined below. Minor Subjects consist of any of modules M2, M4 or M5.

M1: Chromosomes, Cell Cycle and Cancer

PROF. D. GLOVER, PROF. M. ASHBURNER, DR C. FARR, DR J. RAFF AND DR M. SEGAL
(Twenty-four lectures, beginning 6 Oct.)

M2: Plant and Microbial Genetics

DR D. SUMMERS, DR P. OLIVER, DR J. ARCHER AND DR I. FURNER
(Twenty-four lectures, beginning 6 Oct.)

M3: Cell Biology and Developmental Genetics

PROF. A. MARTINEZ-ARIAS, PROF. D. ST JOHNSTON, DR J. AHRINGER AND DR M. ZERNICKA-GOETZ
(Twelve lectures, beginning 11 Nov.)

M4: Human Genetics and Genomics

DR D. MACDONALD, DR C. FARR, DR S. RUSSELL AND DR G. MICKLEM
(Twelve lectures, beginning 11 Nov.)

Long Reading Weekend. Dates to be announced

M5: Evolution

DR M. MAJERUS AND DR F. BALLOUX
(Twenty-four lectures, beginning 19 Jan.)

M3: Cell Biology and Developmental Genetics

The same continued.
(Twelve lectures, beginning 19 Jan.)

M4: Human Genetics and Genomics

The same continued.
(Twelve lectures, beginning 6 Feb.)

Reading Week. Dates to be announced.

Revisions seminars (Five sessions, dates to be announced)
The same continued. (Eight revision sessions)

GEOLOGICAL SCIENCES AND MINERAL SCIENCES
PHYSICAL SCIENCES: HALF SUBJECT GEOLOGICAL SCIENCES

Course Website: www.esc.cam.ac.uk/new/v10/teaching/geology/ii-iii/courses.html

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.

Students offering Physical Sciences: Half Subject Geological Sciences should consult with the Department over the courses they will take.

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

PROF. I. N. MCCAIVE, DR N. HOVIUS AND DR L. HARPER
Convenor: Dr N. Hovius
Lectures. W. 9, F. 12 *Harker Room*
Practicals. W. 10–12, F. 2–4 *Palaeontology Laboratory*

Option 1 Basin Dynamics

DR N. J. WHITE AND OTHERS
Convenor: Dr N. J. White
Lectures. Tu. Th. 9 *Tilley Room*
Practicals. Tu. 10–11.30, Th. 10–11.30
Petrology Laboratory

The same continued. (Eight revision sessions)

Option 2 Sedimentary Systems

DR A. GALY AND DR J. A. D. DICKSON
Convenor: Dr J. A. D. Dickson
Lectures. Tu. F. 2 *Harker Room*
Practicals. Tu. F. 3–4.30 *Petrology Laboratory*

The same continued. (Eight revision sessions)

Option 3 Metamorphic and Igneous Processes

DR D. M. PYLE, DR T. J. B. HOLLAND AND DR J. MACLENNAN
Convenor: Dr D. M. Pyle
Lectures. M. Th. 2 *Harker Room*
Practicals. M. Th. 3–4.30 *Palaeontology Laboratory*

continued >

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2005

LENT 2006

EASTER 2006

Core C4 Mineralogy

DR M. WELCH, PROF. M. A. CARPENTER AND DR R. J. HARRISON
 Convenor: Prof. M. A. Carpenter
 Lectures. Tu, W, 2 *Harker 2 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 *Harker 2 Room*
 Practicals. W, 10–11.30, F, 3–4.30 IB *Minerals Laboratory*

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 3–10 Dec. 2004 or 6–14 Dec.

PROF. J. A. JACKSON, DR N. HOVIUS, DR N. J. WHITE,
 DR A. GALY AND PROF. I. N. MCCAVE

Option M3 Spectroscopic Methods

DR I. FARNAN, DR M. ZHANG, DR G. LUMPKIN AND
 DR M. T. DOVE
 Convenor: Dr I. Farnan
 Lectures. M, F, 9 *Harker 2 Room*
 Practicals. M, F, 10–11.30 IB *Minerals Laboratory*

Option 4 Long Term Climate Change

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

Option 5 Evolutionary Palaeobiology

DR N. J. BUTTERFIELD AND DR D.B. NORMAN
 Convenor: Dr N. J. Butterfield
 Lectures. W, F, 9 *Harker Room*
 Practicals. W, F, 10–11.30 *Palaeontology Laboratory*

Option M1 High Pressure Mineralogy

PROF. G. D. PRICE, PROF. M. A. CARPENTER,
 DR S. RIOS, DR E. ARTACHO AND
 DR M. WELCH
 Convenor: Prof. M. A. Carpenter
 Lectures. W, F, 9 *Harker 2 Room*
 Practicals. W, F, 10–11.30 IB *Minerals Laboratory*

Option M2 Disordered Materials

DR M. T. DOVE, DR I. FARNAN AND DR K.
 TRACHENKO
 Convenor: Dr I. Farnan
 Lectures. M, 9, W, 2 *Harker 2 room*
 Practicals. M, 10–11.30, W, 3–4.30 IB
Minerals Laboratory

The same continued. (Eight revision sessions)

The same continued. (Eight revision sessions)

The same continued. (Eight revision sessions)

The same continued. (Eight revision sessions)

HISTORY AND PHILOSOPHY OF SCIENCE

A detailed timetable and course handbook are available from the Department. Further details are available from hps-admin@lists.cam.ac.uk or on the web: www.hps.cam.ac.uk

Prof. Kusch and Dr Hopwood would like to see all Part II students taking HPS on Wednesdays 5 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 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: DR P. FARA, DR R. GASKELL AND DR F. WILLMOTH
 Fontenelle (tr. Behn) *A Discovery of New Worlds* (1688). 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: MR S. JOHN
 Bas van Fraassen, *The Scientific Image* (1981), chapter 2. W, 4 (weeks 1–4)

Paper 5: PROF. M. KUSCH AND OTHERS
 John R. Searle, *The Construction of Social Reality*. F, 11 (weeks 1–4)

Paper 6: DR A. MAYER
 Sigmund Freud, *The Interpretation of Dreams* (1900), chapters 2–4. Th, 11 (weeks 1–4)

Paper 7: DR L. KASSELL
 Helkiah Crooke, *Microcosmographia* (1615), Book 4. F, 12 (weeks 1–4)

Paper 8: DR S. WILMOT
 'The Geneticists' Manifesto'. Tu, 2 (weeks 1–4)

Paper 9: PROF. N. JARDINE AND MR N. TOSH
 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). Tu, 5 (weeks 1–4)

Dissertation Seminar

W, F, 4 (weeks 1–4)
It is essential that students attend at least two of these seminars.

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2005

LENT 2006

EASTER 2006

(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, DR S. KUSUKAWA, DR E. ROBSON AND DR L. TAUB

Introduction. Th. 10 (weeks 1–4) (*Essential. No supervisions.*)

DR L. TAUB AND DR L. KASSELL

Instruments, Books and Collections. Tu. 11 (weeks 1–4)

DR L. TAUB, DR C. SALAZAR, DR A. IMHAUSEN, DR S. CONNELL AND DR A. DOODY

Ancient Mediterranean Science. M. 2 (weeks 1–8)

DR E. ROBSON

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

(Paper 2) Natural Philosophies: Renaissance to Enlightenment

Course Organisers: Dr L. Kassell, (e-mail: ltk21@cam.ac.uk) (Michaelmas Term) and Prof. S. Schaffer, (e-mail: sjs16@cam.ac.uk) (Lent and Easter Terms)

DR P. FARA, DR R. GASKELL AND DR F. WILLMOTH

Primary Source. F. 4 (weeks 1–4)

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

Natural Philosophy and Exact Sciences. Tu. 11 (weeks 5–8)

DR L. KASSELL

Occult Philosophy. M. 10 (weeks 1–8)

(Paper 3) Science, Industry and Empire

Course Organisers: Dr J. Endersby, (e-mail: jje21@cam.ac.uk) (Michaelmas Term) and Prof. S. Schaffer, (e-mail: sjs16@cam.ac.uk) (Lent and Easter Terms)

DR J. ENDERSBY, DR P. WHITE AND OTHERS

Primary Source. M. 4 (weeks 1–4)

DR R. NOAKES AND DR K. PRICE

The Workshop of the World: British Physical Sciences. F. 10 (weeks 1–8)

DR J. ENDERSBY, MS S. QURESHI 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 Organiser: Prof. P. Lipton, (e-mail: pl112@cam.ac.uk)

MR S. JOHN

Primary Source. W. 4 (weeks 1–4)

PROF. P. LIPTON

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

PROF. M. KUSCH

Epistemology. M. 11 (weeks 1–8)

MR N. TOSH

Pragmatism and Truth. W. 11 (weeks 1–4)

(Paper 5) Science and Technology Studies

Course Organiser: Prof. M. Kusch, (e-mail: mphk2@cam.ac.uk)

PROF. M. KUSCH

Primary Source. F. 11 (weeks 1–4)

DR S. JASANOFF

Civic Epistemology. Th. 11 & F. 11 (weeks 6&7)

(The dates for these lectures are 10 and 11 November and 17 and 18 November)

DR B. MUSALLAM AND DR N. EL-BIZRI

Arabic Science. M. 2 (weeks 1–4)

PROF. SIR GEOFFREY LLOYD

Greek and Chinese Science. W. 11 (weeks 1–4)

DR A. CUNNINGHAM

Sects and Nature. Tu. 11 (weeks 1–4)

DR R. SERJEANTSON

The End of the Classical Tradition. Tu. 11 (weeks 5–8)

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

The same continued. M. 11 (weeks 1–8)

PROF. N. JARDINE, DR P. WHITE AND DR E. SPARY

Natural Histories. M. 10 (weeks 1–8)

DR L. TAUB AND DR P. PLASSMEYER

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

DR C. CULLEN

Science and Cross-Cultural Encounter in

China: From Matteo Ricci to the Macartney Embassy. W. 10 (weeks 5–8)

PROF. N. JARDINE, DR S. DE CHADAREVIAN AND PROF. S. SCHAFFER

Laboratories and Disciplines: German Sciences. Tu. 3 (weeks 1–8)

DR L. TAUB, PROF. S. SCHAFFER AND

DR R. ANDERSON

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

DR J. ENDERSBY, DR P. FARA, MS S. QURESHI AND DR P. WHITE

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

DR M. LENG

Philosophy of Mathematics. W. 11 (weeks 5–8)

DR M. MAMELI

Philosophy of Biology. Th. 11 (weeks 1–8)

PROF. P. LIPTON

Induction. W. 12 (weeks 1–8) (*Mill Lane Lecture Rooms*)

DR J. AGAR AND PROF. S. SCHAFFER

Sociology of Scientific Knowledge and Technology II. Tu. 12 (weeks 1–8)

DR R. DOUBLEDAY

Social Studies of Nanotechnology. M. 2 (weeks 5–8)

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2005

LENT 2006

EASTER 2006

PROF. M. KUSCH
Philosophy of the Social Sciences. W. 10 (weeks 1–8)
PROF. M. KUSCH
Sociology of Scientific Knowledge and Technology I.
Tu. 12 (weeks 1–8)

(Paper 6) History and Philosophy of Mind

Course Organiser: Prof. M. Kusch, (e-mail:
mphk2@cam.ac.uk)

DR A. MAYER
Primary Source. Th. 11 (weeks 1–4)

PROF. M. KUSCH
Rule Following. F. 2 (weeks 1–4)

DR D. THOM
Psychology and Eugenics in the UK, 1869–1971. F. 2
(weeks 5–8)

DR A. MAYER
Freud, Psychoanalysis and the Twentieth Century.
W. 2 (weeks 1–8)

(Paper 7) Medicine from Antiquity to the Enlightenment

Course Organiser: Dr L. Kassell, (e-mail:
ltk21@cam.ac.uk)

DR L. KASELL
Primary Source. F. 12 (weeks 1–4)

DR L. KASELL AND OTHERS
Medicine and Society in Europe, 1250–1800. Th. 12
(weeks 1–4)

DR E. ROBSON
Mesopotamian Medicine. Th. 12 (weeks 5–8)

DR S. KUSUKAWA
Renaissance Anatomy. F. 12 (weeks 5–8)

(Paper 8) Modern Medicine and Biomedical Sciences

Course Organiser: Dr S. de Chadarevian, (e-mail:
sd10016@cam.ac.uk)

DR S. WILMOT
Primary Source. Tu. 2 (weeks 1–4)

DR A. CUNNINGHAM, DR S. DE CHADAREVIAN,
DR T. BUKLIJAS, DR A. MAYER AND DR S. WILMOT
Making Modern Medicine. M. 12 (weeks 1–8); Tu. 2
(weeks 5–8); Th. 2 (weeks 1–8)

(Paper 9) Images of the Sciences

Course Organiser: Prof. N. Jardine, (e-mail:
nj103@cam.ac.uk)

PROF. N. JARDINE AND MR N. TOSH
Primary Source. Tu. 3 (weeks 1–4)

PROF. N. JARDINE AND DR C. CHIMISSO
Ideologies of Science. Tu. 10 (weeks 1–8)

DR M. FRASCA-SPADA, PROF. N. JARDINE AND ALIX COHEN
Sources of Knowledge: Hume and Kant. Th. 3 (weeks
1–8)

DR P. FARA
People and Pictures. Tu. 3 (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. Tu. 5 (weeks 1–4)

DR J. AGAR, DR S. DE CHADAREVIAN AND DR J. ENDERSBY
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 E. ROBSON
The Material Culture of Mathematics in
Historical Perspective. Th. 9 (weeks
1–8)

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
W. 2 (weeks 1–4)

DR J. AGAR
Turing and the History of Artificial
Intelligence. W. 2 (weeks 5–8)

MR M. SPREVAK
Thought and Computation. W. 10 (weeks 1–4)

DR A. CUNNINGHAM
Seventeenth and Eighteenth-Century Medicine.
F. 12 (weeks 1–8)
The same continued. F. 2 (weeks 1–4); Tu. 2
(weeks 5–8)

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 E. LAFFERTON
Making the Modern Body. M. 12 (weeks 1–4)

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

DR T. BUKLIJAS
Dissecting Anatomy. Th. 2 (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
The same continued. Tu. 10 (weeks 1–4)

MR S. JOHN
Berkeley and Positivism. Tu. 10 (weeks 5–8)

DR J. AGAR, DR S. DE CHADAREVIAN,
DR J. ENDERSBY AND MS H. MACDONALD
Science and Technology after 1945. Th. 10
(weeks 1–8); F. 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 *Centre
for Mathematical Sciences Room 9*
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. MARENBO
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 2005

LENT 2006

EASTER 2006

MATERIALS SCIENCE AND METALLURGY

Readers of the Lecture-List are advised to contact the Department for details

NEUROSCIENCE

Course Organiser: Prof. S.B. Laughlin (email: s.laughlin@zoo.cam.ac.uk)

Course Website: www.bio.cam.ac.uk/teaching/neuroscience/index.html

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, 6–24 Oct.)

DR G. COOK

Axonal Growth. (Four lectures, 31 Oct. – 10 Nov.)

DR J. H. ROGERS

Development of Connections. (Four lectures, 21 Nov. – 1 Dec.)

READING WEEK (14–18 Nov.)

Module 2: Cellular and Molecular Neurobiology. W. F. 9, in the *Lecture Theatre, Department of Pharmacology*

DR S. B. HLADKY

Voltage-Sensitive Ion Channels (Four lectures, 5–14 Oct.)

Note the early start of this course.

DR S. CHAWLA

Calcium channels. (Two lectures, 19–21 Oct.)

DR P. RICHARDSON

G-Protein coupled receptors. (Four lectures, 26 Oct. – 4 Nov.)

DR J. A. KOENIG

Ligand-gated Ion Channels. (Four lectures, 9, 11, 23, 25 Nov.)

DR P. J. RICHARDSON

Genomics of Neuronal Systems (Two lectures, 30 Nov. – 2 Dec.) W. F. 9

READING WEEK (14–18 Nov.)

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

DR B. HEDWIG

Synaptic, Cellular and Network Properties. (Four lectures, 5–14 Oct.)

Note the early start of this course.

DR D. PARKER

Network Mechanisms in the Control of Movement. (Three lectures, 19–26 Oct.)

PROF. D. WOLPERT

Human sensorimotor control. (Three lectures, 2, 4 Nov., 7 Nov. (M. 10))

DR P. EVANS

Modulating a System. (Four lectures, 9, 11, 23, 25 Nov.)

READING WEEK (14–18 Nov.)

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

DR R. HARDIE

Photoreceptors. (Four lectures, 6–18 Oct.)

PROF. E. B. KEVERNE

Olfactory Receptors. (Two lectures, 20, 25 Oct.)

PROF. J. MOLLON

Visual Processing of Spatial Contrast and of Colour. (Four lectures, 27 Oct. – 8 Nov.)

DR B. HEDWIG

Auditory Mechanisms. (Four lectures, 10–29 Nov.)

READING WEEK (14–18 Nov.)

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

DR B. J. MCCABE

Cellular Mechanisms of Learning and Memory. (Four lectures, 10–18 Oct.)

DR B. WINTERS

Conditioning and Associative Learning. (Four lectures, 24 Oct. – 1 Nov.)

DR L. SAKSIDA

Computational Neuroscience I: Conditioning and Associative Learning. (Two lectures, 7, 8 Nov.)

DR Z. SARNYAI

Stress and the Brain: Effects of the Environment on Behaviour and Cognition. (Four lectures, 21–29 Nov.)

READING WEEK (14–18 Nov.)

PROF. E. B. KEVERNE

Development of Brain and Behaviour. (Three lectures, 16–23 Jan.)

Note the early start of this course.

DR P. KIRKPATRICK

Ischaemia, Excitotoxicity, and Stroke. (Two lectures, 26, 30 Jan.)

DR M.-G. SPILLANTINI

Neural Degeneration. (Four lectures, 2–13 Feb.)

DR R. BARKER

Neural Regeneration. (Four lectures, 16 Feb., 27 Feb. – 6 Mar.)

DR R. FRANKLIN

Glial Degeneration and Repair. (Three lectures, 9–16 Mar.)

READING WEEK (20–24 Feb.)

DR P. THORN

Calcium Signalling in Neurons. (Three lectures, 18–25 Jan.)

Note the early start of this course.

PROF. D. COOPER

cAMP Signalling. (Four lectures, 27 Jan. – 8 Feb.)

DR B. MCCABE

Synaptic Plasticity. (Three lectures, 10–17 Feb.)

DR J. M. EDWARDS

Mechanisms of Exocytosis. (Four lectures, 1–10 Mar.)

DR S. CHAWLA

Regulation of Gene Transcription. (Two lectures, 15–17 Mar.)

READING WEEK (20–24 Feb.)

DR M. HASTINGS

Neural Control of Circadian Rhythms. (Four lectures, 18–27 Jan.)

Note the early start of this course.

DR S. EDGLEY

Cerebellum. (Four lectures, 3, 8 Feb., 13 Feb. (M. 12) and 15 Feb.)

DR R. CARPENTER

Neural Decisions. (Three lectures, 1–8 Mar.)

DR S. JONES

Basal Ganglia. (Four lectures, 10 Mar., 13 Mar. (M. 12) and 15–17 Mar.)

READING WEEK (20–24 Feb.)

PROF. P. A. MCNAUGHTON

Pain. (Four lectures, 17–26 Jan.)

Note the early start of this course.

PROF. S. B. LAUGHLIN

Electric Sense and Motor Vision. (Four lectures, 31 Jan. – 9 Feb.)

DR J. ALCANTARA

Auditory Hair Cells. (Two lectures, 14, 16 Feb.)

DR J. ALCANTARA

Auditory Processing in the Cochlea. (Six lectures, 28 Feb. – 16 Mar.)

READING WEEK (20–24 Feb.)

DR R. COOLS

Brain Mechanisms of Memory and Cognition. (Six lectures, 16, 23, 30 Jan., 6, 13, 27 Feb.)

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

DR R. A. MCCARTHY

Cognitive Neuropsychology. (Eight lectures, 17, 24–31 Jan., 7, 14, 28 Feb., 7, 14 Mar.)

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

DR L. SAKSIDA

Computational Neuroscience II: Memory and Cognition. (Two lectures, 6, 13 Mar.)

READING WEEK (20–24 Feb.)

continued >

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2005

LENT 2006

EASTER 2006

PATHOLOGY
BIOLOGICAL AND BIOMEDICAL SCIENCES: MAJOR SUBJECT PATHOLOGY

Course Organiser: Dr I. Brierley (email: 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.

The Biological and Biomedical Sciences (Major Subject Pathology) course consists of a choice of two out of the five modules outlined below.

Introductory lecture

All options. W. 3 (One lecture, 5 Oct.) *It is important that all students attend the introductory lecture*

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

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

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

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

Part I: Genes, Genomes and Disease.

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

Part II: Molecular Genetics and Pathology of Reproduction.

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

Option Organiser: Dr N. Holmes (email: nh106@cam.ac.uk Tel: 33871)

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

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 G. FRASER AND PROF. V. KORONAKIS
Bacterial Disease and Pathogenicity.

DR D. BROWN, DR R. HAYWARD, 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)

DR T. D. K. BROWN, DR S. WYNNE, DR P. DIGARD, DR J. GRAY, DR I. BRIERLEY, DR S. EFSTATHIOU AND DR J. SINCLAIR

Option E: Dynamics of Infectious Disease Tu. Th. 9, Th. 10

Venue: Room FW26 William Gates Computer Laboratory Building

Option Organiser: Dr L. S. Tiley (email: lst21@cam.ac.uk Tel: 39554)

DR N. DAVIS-POYNTER, DR J. WOOD, DR J. DALY, DR J. MCCAULEY, DR I. BROWN, DR D. MACKAY AND DR M. KEELING

Dynamics of Acute Virus Infections.

DR A. GRANT, DR T. HUMPHREY, DR P. MASTROENI, PROF. J. SLATER AND DR O. RESTIF

Dynamics of Acute Bacterial Infections.

DR O. PYBUS, DR L. TILEY, DR B. BLACKLAWS, DR J. MACCADLEY, DR B. CHARLSTON, DR A. DAVIDSON, DR K. SMITH, DR H. FIELD, DR S. GORDON, DR R. CLIFTON-HADLEY AND DR T. GOODCHILD

Chronic/Persistent Infections.

DR A. PHILPOTT, PROF. A. H. WYLLIE, DR R. HESKETH, DR VENKITARAMAN, PROF. V. P. COLLINS, PROF. M.-Q. DU, DR A. BANNISTER, DR C. CALDAS, PROF. M. A. STANLEY, PROF. C. FFRENCH-CONSTANT, DR P. JONES AND DR C. WATSON

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 D. B. PALMER, DR F. RANDOW, PROF. A. GREEN, DR F. RANDOW, DR G. BUTCHER AND DR A. MOFFETT

DR I. B. KINGSTON, DR J. AJIOKA, DR M. SHIRLEY, DR C. PEACOCK AND DR S. MELVILLE
Major Protozoal Diseases.
PROF. D. DUNN, DR K. HOFFMAN, DR I. B. KINGSTON AND DR E. MICHAEL
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, DR P. DIGARD, DR T. D. K. BROWN, DR J. C. STERLING, DR H. BROWNE, DR P. D. MINOR, DR G. K. DARBY, DR J. AJIOKA, DR J. GOG AND DR P. STEVENSON

DR D. ALEXANDER AND DR L. TILEY
Emerging Infections.
DR P. MELLOR AND DR L. TILEY
Dynamics of Arboviral Infections.
DR N. DAVIS-POYNTER AND PROF. D. MASKELL
Principles of Pathogen Dynamics.
DR M. BOOTH
Modelling Disease Dynamics
DR D. SARGAN, DR R. KAO AND DR R. BUJDOSO
TSEs.

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

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

DR M. BOOTH
Epidemiology.
DR H. DE KONING AND DR M. FIELD
Parasite Vaccines and Chemotherapy.

Project Seminars Dates to be confirmed

DR T. D. K. BROWN, DR P. DIGARD AND DR S. EFSTATHIOU

IT Training

MS PHIPPS

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2005

LENT 2006

EASTER 2006

**PHARMACOLOGY
BIOLOGICAL AND BIOMEDICAL SCIENCES: MAJOR SUBJECT PHARMACOLOGY**

Course Organiser: Dr J. M. Edwardson (email: jme1000@cam.ac.uk)
 Course Website: www.phar.cam.ac.uk/teaching/tea_part2.html

The introductory session will be at 9 a.m., Tuesday, 4 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*

The Biological and Biomedical Sciences (Major Subject Pharmacology) course also consists of the lectures outlined below.

Pharmacology of Integrated Systems

- DR C. R. HILEY
Cardiovascular Pharmacology. (Eight lectures, 6–24 Oct.) M. Tu. Th. 9
- DR H. W. VAN VEEN
Resistance to Antibacterial, Antiparasitic and Anticancer Agents. (Three lectures, 6–13 Oct.) Tu. Th. 11
- DR T. P. FAN
Pharmacology of Inflammation and Angiogenesis. (Six lectures, 18 Oct. – 3 Nov.) Tu. Th. 11
- DR P. THORN
Gastrointestinal Pharmacology. (Three lectures, 25–31 Oct.) M. Tu. Th. 9
- DR L. MACVINISH
Pharmacology of Cystic Fibrosis and the Lung Epithelium. (Four lectures, 1–8 Nov.) M. Th. 9
- DR F. H. MARSHALL
Drug Discovery. (Three lectures, 10–14 Nov.) M. Th. 9
- PROF. M. J. WARING AND PROF. V. K. K. CHATTERJEE
Drugs, Receptors and DNA (Six lectures, 8–24 Nov.) Tu. Th. 11
- DR R. M. HENDERSON
Cholesterol, Diabetes and Obesity (Seven lectures, 17 Nov; 30 Nov; 22 Nov–1 Dec.) M. Tu. Th. 9

Molecular and Cellular Pharmacology

- PROF. P. A. MCNAUGHTON
Cellular and Molecular Aspects of Pain. (Four lectures, 5–12 Oct.) M. W. F. 10
- DR S. B. HLADKY
Voltage-Sensitive Ion Channels. (Four lectures, 5–14 Oct.) W. F. 9
- DR H. W. VAN VEEN
Carriers and Pumps as Targets for Drug Development. (Four lectures, 14–21 Oct.) M. W. F. 10
- DR S. CHAWLA
Calcium Channels. (Two lectures, 19–21 Oct.) W. F. 9
- DR J. M. YOUNG
Analysis of Drug-Receptor Interactions. (Five lectures, 24 Oct. – 2 Nov.) M. W. F. 10
- PROF. R. F. IRVINE
Phosphoinositide Derived Messengers. (Four lectures, 4–11 Nov.) M. W. F. 10
- DR J. KOENIG
Ligand-Gated Ion Channels (Four lectures, 9, 11, 23, 25 Nov.) W. F. 9
- DR A. GENAZZANI
Excitatory Amino Acids. (Two lectures, 14–16 Nov.) M. W. 10
- PROF. C. W. TAYLOR
G-proteins Signalling Pathways. (Four lectures, 18–25 Nov.) M. W. F. 10
- DR P. J. RICHARDSON
Genomics of Neuronal Systems (Two lectures, 30 Nov. – 2 Dec.) W. F. 9

- DR A. J. MORTON
Neurodegeneration. (Eight lectures, 19 Jan. – 6 Feb.) M. Tu. Th. 9
- DR Z. SARNYAI
Pharmacology of Psychiatric Disorders. (Eight lectures, 7–23 Feb.) M. Tu. Th. 9

- PROF. C. W. TAYLOR
Calcium Signalling in Neurons. (Three lectures, 1–8 Feb.) W. F. 9
Note the early start to this course.
- DR L. RODERICK
Calcium Signalling. (Two lectures, 27–30 Jan.) M. F. 10
- PROF. D. COOPER
cAMP Signalling. (Four lectures, 18–27 Jan.) W. F. 9
- DR B. MCABE
Synaptic Plasticity (Three lectures, 10–17 Feb.) W. F. 9
- DR J. M. EDWARDSON
Mechanisms of Exocytosis. (Four lectures, 1–10 Mar.) W. F. 9
- DR J. M. EDWARDSON
Mechanisms of Endocytosis. (Two lectures, 13–14 Mar.) M. T. 9
- DR S. CHAWLA
Regulation of Gene Transcription. (Two lectures, 15–17 Mar.) W. F. 9

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2005

LENT 2006

EASTER 2006

PHYSIOLOGY
BIOLOGICAL AND BIOMEDICAL SCIENCES: MAJOR AND MINOR SUBJECTS PHYSIOLOGY

Course Organiser: Prof. C. L.-H. Huang (email: clh11@cus.cam.ac.uk)
 Course Website: www.physiol.cam.ac.uk/

The Biological and Biomedical Sciences (Major Subject Physiology) course consist of lectures from the modules below. Students can offer either modules 1, 2, 4 and 5, or modules 1, 2, 3 and 6. Three Minor Subjects are also offered, consisting of the lectures of either Modules 3, 4 or 6.

Common Module

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

NST Orientation Day

W. 5 Oct. *Main Physiology Lecture Theatre*

Later sessions:

DR A. SILVER

NST: Introduction to Scientific Writing. (One lecture, 11 Oct.) M. 9 *Bryan Matthews Room*

DR A. SILVER

BBS: Introduction to Scientific Writing. (One lecture, 13 Oct.) W. 2 *Bryan Matthews Room*

Other Sessions to be confirmed

Module 1: Sensory Systems W. Th. 9 unless otherwise stated

Venue: (To be confirmed: *Bryan Matthews Room*)
 Module organiser: Dr I. M. Winter

DR H. R. MATTHEWS

Phototransduction. (Four lectures, 12, 19, 26 Oct., 2 Nov.)

PROF. A. C. CRAWFORD

Peripheral Auditory System. (Four lectures, 13, 20, 27 Oct., 3 Nov.)

DR I. M. WINTER

Central Auditory System. (Four lectures, 9, 10, 16, 17, Nov.)

TBA

Seminar. (Three seminars, 23, 24, 30 Nov.)

Module 2: Motor Systems F. 9, 11 unless otherwise stated

Venue: (To be confirmed: *Physiology Lecture Theatre 3*)
 Module organiser: Dr H. R. Matthews

PROF. C. L.-H. HUANG

Activation of Skeletal Muscle. (Four lectures, F. 9; 7, 14 Oct.; F. 11; 7, 14 Oct.)

DR A. PELAH

Visuomotor Adaptation and Control. (Three lectures, F. 9; 21 Oct.; F. 11; 21, 28 Oct.)

PROF. A. C. CRAWFORD

Muscle Spindles. (Three lectures, F. 9; 28 Oct., 4 Nov.; M. 9; 31 Oct.)

PROF. R. N. LEMON

Corticospinal Organisation. (Four lectures, F. 9; 11, 25 Nov.; F. 11; 4, 18 Nov.)

Other sessions:

To be confirmed

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 H. R. MATTHEWS

Module Two Journal Club M. Tu. 2 (Two sessions, 31 Jan., 15 Feb.)

DR R. J. BARNES

Module Three Journal Club. F. 4.30 (One session, 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.)

DR D. J. TOLHURST

Information Coding in Sensory Systems. (Two lectures, 19, 25 Jan.)

PROF. R. D. PATTERSON

Higher Auditory Processing. (Four lectures, 26 Jan., 1, 2, 8 Feb.)

DR D. J. TOLHURST

The Visual Cortex. (Four lectures, 9, 15, 16, 22 Feb.)

PROF. H. B. BARLOW

Higher Visual Processes. (Three lectures, 23 Feb., 1, 2 Mar.)

DR N. J. INGHAM

Mechanisms of Sound Localisation. (Two lectures, 8, 9, Mar.)

TBA

One seminar. (15 Mar.)

DR H. R. MATTHEWS

Long-latency Reflexes. (Four lectures, F. 9; 20, 27 Jan., 3, 10 Feb.)

DR S. EDGLEY

Cerebellum. (Four lectures, F. 11; 20, 27 Jan., 3, 10 Feb.)

PROF. J. C. ROTHWELL

Cortical and Subcortical Control of Movement. (Six lectures, F. 9; 24 Feb., 3, 10 Mar.; F. 11; 24 Feb., 3, 10 Mar.)

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2005

LENT 2006

EASTER 2006

PHYSIOLOGY (continued)

Module 3: Systems Physiology W. F. 10 *unless otherwise stated*Venue: (To be confirmed: *Physiology Lecture Theatre 3*)
Module Organiser: Dr S. O. Sage

DR R. J. BARNES
Cardiovascular Responses to Stress. (Four lectures, 7, 12, 14, 19 Oct.)

DR J. C. D. HICKSON
Exocrine Pancreas. (Two lectures, 21, 26 Oct.)

DR S. O. SAGE
Osmoregulation. (Three lectures, 28 Oct., 2, 4 Nov.)

DR N. W. MORRELL
Pulmonary Circulation. (Two lectures, 9, 11 Nov.)

PROF. J. T. FITZSIMONS
Angiotensin, Thirst, Sodium Appetite and Hypertension. (Five lectures, 16, 18, 23, 25, 30 Nov.)

Module 4: Developmental Physiology Th. F. 12 *unless otherwise stated*Venue: (To be confirmed: *Bryan Matthews Room*)
Module Organiser: Dr A. J. Forhead

DR A. J. FORHEAD
Development of Fetal Organs. (Four lectures, 6, 7, 13, 14 Oct.)

DR D. A. GIUSSANI
Fetal Cardiovascular Development. (Three lectures, 20, 21, 27 Oct.)

DR S. K. L. ELLINGTON
Embryogenesis. (Four lectures, 3, 4, 10, 11 Nov.)

DR W. H. COLLEDGE
Transgenesis. (Four lectures, 17, 18, 24, 25 Nov.)

Module 5: Cellular Physiology M. 10, Tu. 9, Th. 11 *unless otherwise stated*Venue: (To be confirmed: *Bryan Matthews Room*)
Module Organiser: Dr C. J. Schwiening

DR MICHAEL J. MASON
Techniques lectures: Fluorescence Measurements of Ion Activities. (Two lectures, 10, 11 Oct.)

DR V. L. LEW
PMCA Thermodynamics. (Three lectures, 17, 18, 24 Oct.)

DR C. J. SCHWIENING
Confocal Microscopy. (One lecture, 25 Oct.)

PROF. C. L-H. HUANG
Voltage-Gated Ion Channels. (Three lectures, 31 Oct., 1, 7 Nov.)

DR H. P. C. ROBINSON
Synaptic Mechanisms. (One lecture, 8 Nov.) *Three more lectures on this topic follow in the Lent Term*

DR M. P. MAHAUT-SMITH
Calcium Signalling. (Four lectures, 14, 15, 17, 21 Nov.)

PROF. R. C. THOMAS
Intracellular pH Regulation. (Two lectures, 22, 28 Nov.)

PROF. R. C. THOMAS
pH Effects on Calcium. (One lecture, 29 Nov.)

PROF. J. COMPSTON
Bone Physiology. (Two lectures, 25, 27 Jan.)

DR J. BRADLEY
Chronic Renal Failure. (Two lectures, 3, 8 Feb.)

PROF. D. B. DUNGER
Diabetes Mellitus. (Two lectures, 10, 15 Feb.)

DR S. O. SAGE
Renal Autoregulation (Two lectures, 17, 22 Feb.)

DR G. S. H. YEO
Genetics of Obesity. (Three lectures, 24 Feb., 1, 3 Mar.)

DR J. FIRTH
Acute Renal Failure. (Three lectures, 8, 10, 15 Mar.)

PROF. A. L. FOWDEN
Growth and Metabolism of the Fetus. (Four lectures, 19, 20, 26, 27 Jan.)

PROF. A. L. FOWDEN
Fetal Adrenal Gland. (One lecture, 2 Feb.)

DR D. A. GIUSSANI
Parturition. (One lecture, 3 Feb.)

DR D. A. GIUSSANI
Fetal Breathing Movements. (One lecture, 9 Feb.)

PROF. M. A. H. SURANI
Developmental Biology. (Four lectures, 10, 16, 17, 23 Feb.)

DR A. J. FORHEAD
Fetal Thyroid Gland. (One lecture, 24 Feb.)

DR A. J. FORHEAD
Glucocorticoids in Fetal Maturation. (Two lectures, 2, 3 Mar.)

DR A. J. FORHEAD AND DR S. E. OZANNE
Intrauterine Programming of Adult Disease. (Two lectures, 9, 10 Mar.)

DR P. WOODING
Electron Microscopy. (One lecture, 23 Jan.)

DR S. O. SAGE
Store-Mediated Calcium Entry. (Three lectures, 24, 30, 31 Jan.)

DR C. J. SCHWIENING
pH Microdomains. (Three lectures, 6, 7, 13 Feb.)

DR J. H. ROGERS
Signal Transduction in Neural Development. (One lecture, 14 Feb.)

DR H. P. C. ROBINSON
Synaptic Mechanisms. (Three lectures, 20, 21, 27 Feb.)

DR J. W. FAWCETT
Neural Development. (Three lectures, 28 Feb., 6, 7 Mar.)

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2005

LENT 2006

EASTER 2006

PHYSIOLOGY (continued)

Module 6: Medical Neurobiology Tu, Th, 10
Venue: (To be confirmed: *Physiology Lecture Theatre 3*)
Module organiser: Dr J. H. Rogers

DR R. TASKER

Acute Neurotoxicity. (Three lectures, 6, 11, 13 Oct.)

PROF. C. L-H. HUANG

Neurological Imaging. (Two lectures, 18, 20 Oct.)

PROF. J. D. PICKARD

Stroke, Intracranial Pressure, and CNS Injury. (Two lectures, 25, 27 Oct.)

DR J. H. ROGERS

Neural Regeneration. (Four lectures, 1, 3, 8, 10 Nov.)

DR M.-G. SPILLANTINI

Neural Degeneration. (Three lectures, 15, 17, 29 Nov.)

DR R. FRANKLIN

Demyelination and Remyelination. (Two lectures, 22, 24 Nov.)

DR R. BARKER

Brain Grafting. (Two lectures, 19, 24 Jan.)

DR M. CALDWELL

Neural Stem Cells. (Three lectures, 26, 31 Jan. – 2 Feb.)

DR A. PARSONS

Development of CNS Pharmaceuticals. (One lecture, 7 Feb.)

DR S. BLEECK

Auditory Disorders. (Two lectures, 14, 16 Feb.)

DR A. ADLAM

Cognitive Disorders in Neurological Disease. (Two lectures, 21, 23 Feb.)

DR P. FLETCHER

Scientific Basis and Treatment of Schizophrenia. (Four lectures, 28 Feb., 2, 7, 9 Mar.)

PLANT SCIENCES

BIOLOGICAL AND BIOMEDICAL SCIENCES: MAJOR SUBJECT PLANT SCIENCES

Course Organiser: Dr Keith Johnstone (email: kj10@cam.ac.uk)Module Organisers appear below. E-mail: firstname.surname@plantsci.cam.ac.uk unless otherwise specifiedCourse Website: www.plantsci.cam.ac.uk/plantsci/teaching/content.htmlAll lectures take place in *the Tom ap Rees Lecture Theatre, Department of Plant Sciences* unless otherwise stated

The Biological and Biomedical Sciences (Major Subject Plant Sciences) course consists of lectures from the modules below. Students can offer either modules M1, M4, L1 and L5 (Cellular Plant Sciences), or modules M3 and either M1 or Zoology M3; and L2, Zoology L2 (Ecology).

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 7 Oct.)

Module M2: Plant Metabolism

Module Organiser: Dr Alison Smith

DR J. M. HIBBERD, DR A. G. SMITH, PROF. J. NAPIER,

DR P. DUPREE AND PROF. J. C. GRAY

M. W. F. 10 (Twenty-four lectures, beginning 7 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 7 Oct.)

Module M4: Transport and Signal Transduction

Module Organiser: Prof. Roger Leigh

DR M. GILLIHAM, PROF. R. LEIGH, DR R. DAVENPORT AND

DR A. A. R. WEBB

Tu. Th. 9 W. 12 (Twenty-four lectures, beginning 6 Oct.)

Module L1: Development of Plants and Fungi

Module Organiser: Dr David Hanke

DR J. DAVIES, DR J. HASELOFF AND DR D. E.

HANKE

M. W. F. 9 (Twenty-four lectures, beginning 20 Jan.)

Module L2: Plant Responses to the Environment

Module Organiser: Dr Edmund Tanner

DR E. V. J. TANNER, DR R. DAVENPORT,

PROF. H. GRIFFITHS, DR J. HIBBARD AND DR

D. A. COOMES

M. W. F. 10 (Twenty-four lectures, beginning 20 Jan.)

Module L3: Plant Genes and Organelles

Module Organiser: Prof. John Gray

DR A. SMITH, DR C. HOWE, PROF. J. GRAY,

DR K. LILLEY AND DR P. DUPREE

Tu. Th. 10, W 11 (Twenty-four lectures, beginning 19 Jan.)

Module L4: Frontiers in Microbial Physiology and Ecology

Module Organiser: Dr Keith Johnstone

DR K. JOHNSTONE, DR A. TUNNAcliffe,

DR J. M. DAVIES AND DR A. N. OTHER

M. W. F. 12 (Twenty-four lectures, beginning 20 Jan.)

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2005

LENT 2006

EASTER 2006

PLANT SCIENCES (continued)

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

Population Biology*Interdepartmental Module*

Module Organiser: Dr A. Manica

DR A. MANICA, DR D. SMITH, DR W. AMOS, DR R. JOHNSTONE, DR S. DALL AND DR D. COOMES
M. W. F. 5 (Twenty-four lectures, beginning 7 Oct.)**Aquatic Ecology***Department of Zoology*

Module Organiser: Dr D. Aldridge

DR M. BROOKE, DR D. ALDRIDGE, DR R. BARNES AND PROF. A. CLARKE
M. W. F. 11 (Twenty-four lectures, beginning 7 Oct.)**Statistics for Part II Biologists**

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

DR B. J. MCCABE
(3 Oct.) M. 9 and 2, M. Tu. W. Th. F. 2 (Ten lectures, 3–13 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 (3, 5, 7 Oct.); M. W. F. 3–5 (10, 12, 14, 17 Oct.) *The Titan Teaching Rooms, New Museums Site*
*Please note early start of course***Conservation Biology***Interdepartmental Module*

Module Organiser: Dr A. Balmford

DR M. BROOKE, DR I. HODGE, DR W. AMOS, DR D. COOMES, DR R. GREEN, DR E. TANNER, DR J. O'SULLIVAN AND DR A. BALMFORD
M. W. F. 4 (Twenty-four lectures, beginning 20 Jan.)All lectures to take place in the *Main Zoology Lecture Theatre*.**Behavioural Ecology***Department of Zoology*

Module Organiser: Dr R. A. Johnstone

DR A. RADFORD, DR R. JOHNSTONE, DR R. KILNER, PROF. T. H. CLUTTON-BROCK AND DR W. FOSTER

Tu. Th. Sa. 10 (Twenty-four lectures, beginning 19 Jan.)

All lectures to take place in the *Main Lecture Theatre*.

PSYCHOLOGY

BIOLOGICAL AND BIOMEDICAL SCIENCES: MAJOR SUBJECT PSYCHOLOGY

Course Organiser: Dr K. C. Plaisted (email: kcp1000@cam.ac.uk)
Course Website: www.psychol.cam.ac.uk/pages/undgrad.html#CoursebLectures will be held in the *Lecture Theatre, Department of Experimental Psychology* unless otherwise stated

The Biological and Biomedical Sciences (Major Subject Psychology) course consists of the lectures below.

General Introduction. Th. 9 (One lecture, 6 Oct.)
DR M. R. F. AITKEN
Statistics. W. Th. F. 2 (Six lectures, 6–20 Oct.)
Practical Classes. M. 2–4 (Two classes, 10, 17 Oct.), W. 2–4 (One class, 26 Oct.) *Physiology Lecture Theatre 3*
Advanced Statistics. W. Th. 2 (Four lectures, 16–24 Nov.)
Practical Classes. M. 2–4 (Two classes, 21, 28 Nov.)
Practical Classroom
PROF. M. P. HAGGARD
Measurement Theory and Qualitative Methods. Tu. 5 (Four meetings, 8–29 Nov.)PROF. B. C. J. MOORE
Hearing. Tu. 9 (Eight lectures, beginning 11 Oct.), W. 11 (Eight lectures, beginning 12 Oct.)
PROF. J. D. MOLLON
Vision. M. 9 (Eight lectures, beginning 10 Oct.)
DR G. J. DIGIROLAMO
Attention and Control. M. 11 (Eight lectures, beginning 10 Oct.)
DR G. J. DAVIS
Visual Cognition. M. 12 (Eight lectures, beginning 10 Oct.)Specialised Issues in Data Analysis and Interpretation. Tu. 5 (Four lectures, 17 Jan. – 7 Feb.)
Note the early start of this course.
PROF. J. D. MOLLON
Writing a Project Report. Th. 5 (One class, 9 Feb.)
DR G. J. DIGIROLAMO
Experimental Design. Th. 2 (One class, 16 Feb.)
PROF. J. D. MOLLON
Vision. Tu. 9 (Eight lectures, 17 Jan. – 14 Feb., 28 Feb. – 14 Mar.)
Note the early start of this course.
DR J. I. ALCANTARA
Speech Perception. M. 11 (Four lectures, 16 Jan. – 6 Feb.)
*Note the early start of this course.*DR M. MIOZZO
Language, Mind and Brain. M. 12 (Eight lectures, 16 Jan. – 13 Feb., 27 Feb. – 13 Mar.)
Note the early start of this course.
DR I. P. L. MCLAREN
Learning, Memory and Cognition. Tu. 12, Th. 9 (Fourteen lectures, 17 Jan. – 16 Feb., 28 Feb. – 9 Mar.)
Note the early start of this course.
DR I. P. L. MCLAREN
Connectionism. M. 9 (Seven lectures, 16 Jan. – 13 Feb., 27 Feb., 6 Mar.)
Note the early start of this course.

continued >

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2005

LENT 2006

EASTER 2006

PSYCHOLOGY (continued)

PROF. N. J. MACKINTOSH

Intelligence. Tu. 10 (Eight lectures, beginning 11 Oct.)

PROF. B. J. EVERITT AND PROF. T. W. ROBBINS

Brain Mechanisms of Motivation. M. W. 10 (Fourteen lectures, 10 Oct.–9 Nov., 21–30 Nov.)

PROF. A. DICKINSON

Comparative Psychology of Learning and Motivation. Tu. Th. 12 (Sixteen lectures, beginning 6 Oct.)

DR N. S. CLAYTON

Comparative Psychology. F. 10 (Eight lectures, beginning 7 Oct.)

DR J. RUSSELL

Cognitive and Social Development. F. 12 (Eight lectures, beginning 7 Oct.)

DR J. ROISER

Abnormal Psychology. F. 11 (Eight lectures, beginning 7 Oct.)

DR E. WEISBLATT

Trauma, Development and Psychiatry. Th. 5 (Four meetings, 3–24 Nov.)

DR L. BROSAN

Clinical Aspects of Abnormal Psychology. W. 5 (Four lectures, 9–30 Nov.)

DR F. PULVERMÜLLER

Neurophysiology of Language Processing in the Brain. F. 10 (Four lectures, 20 Jan. – 10 Feb.)

TO BE ADVISED

Brain Mechanisms of Cognition and Memory. M. 10 (Six lectures, 16 Jan. – 13 Feb., 27 Feb.) *Physiology Main Lecture Theatre*
Note the early start of this course.

DR L. M. SAKSIDA

Neural Networks and Brain Function. W. 10 (Eight lectures, 18 Jan. – 15 Feb., 1–15 Mar.)
Note the early start of this course.

DR R. A. MCCARTHY

Cognitive Neuropsychology. Tu. 10 (Eight lectures, 17 Jan. – 14 Feb., 28 Feb. – 14 Mar.) *Physiology Main Lecture Theatre*
Note the early start of this course.

DR N. S. CLAYTON

Comparative Psychology. F. 11 (Seven lectures, 20 Jan. – 17 Feb., 3, 10 Mar.)

DR K. C. PLAISTED

Developmental Disorders. Th. 12 (Four lectures, 19 Jan. – 6 Feb.)

PROF. B. J. EVERITT

Abnormal Psychology: Biological Perspectives. W. 11 (Six lectures, 25 Jan. – 22 Feb., 1 Mar.)

DR J. RUSSELL

Language Acquisition. F. 12 (Eight lectures, 20 Jan. – 17 Feb., 3–17 Mar.)

DR P. FLETCHER

Cognitive Neuropsychiatry. F. 10 (Four lectures, 17 Feb., 3–17 Mar.)

DR J. STEVENSON-HINDE AND OTHERS

Temperament and Attachment. M. W. 5 (Eight lectures, 16 Jan. – 8 Feb.)
Note the early start of this course

Attention is drawn to lectures organised by the Faculty of Social and Political Sciences for the Paper Psy 1 (Social Psychology) given for Parts IIA and IIB of the Social and Political Sciences Tripos, W. 12, Th. 10 throughout the Michaelmas and Lent Terms

NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2005

LENT 2006

EASTER 2006

ZOOLOGY

Course Organiser: Dr H. Skaer (email: h.skaer@zoo.cam.ac.uk)

BIOLOGICAL AND BIOMEDICAL SCIENCES: MAJOR SUBJECT ZOOLOGY

Course Organiser: Dr J. R. Flowerdew (email: j.r.flowerdew@zoo.cam.ac.uk)

Course Website: www.zoo.cam.ac.uk/degree/2zoology/index.html

Lectures will be given in the *Department of Zoology* unless otherwise stated

The Biological and Biomedical Sciences (Major Subject Zoology) course can be made up from any of the following options:

Cells and Development: Modules M6, M7 and a choice of two modules from L5, L6 or L7

Behaviour: Modules M4, M5, L3 and L4

Vertebrate Biology: Two modules chosen from M1, M3 or M5, and two chosen from L1, L3 or L4

Ecology and Conservation: Two modules from M2, M3 or M5 and L2 and L3

Ecology and Genetics: Two modules chosen from M2, M3 or M5, and two chosen from L2, L3 or the Genetics module M5 (Evolutionary Genetics)

Ecology and Plant Sciences: Two modules from M2 and M3, or Plant Sciences M3 (Dynamics and History and Future of Vegetation) and L2, L3

M1 Topics in Vertebrate Evolution

Module Organiser: Dr J. A. Clack

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

M. W. F. 10 (Twenty-four lectures, beginning 7 Oct.)

M2 Aquatic Ecology

Module Organiser: Dr D. Aldridge

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

M. W. F. 11 (Twenty-four lectures, beginning 7 Oct.)

M3 Population Biology

Module Organiser: Dr A. Manica

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

M. W. F. 5 (Twenty-four lectures, beginning 7 Oct.)

M4 Neural Mechanisms of Behaviour

Module Organiser: Dr B. Hedwig

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

Tu. Th. Sa. 11 (Twenty-four lectures, beginning 6 Oct.)

M5 Behaviour

Module Organiser: Prof. E. B. Keverne

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

Tu. Th. Sa. 10 (Twenty-four lectures, beginning 6 Oct.)

M6 Cell Dynamics and Communication

Module organiser: Dr H. Skaer

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

M. W. F. 4 (Twenty-four lectures, beginning 7 Oct.)

M7 Control of Cell Growth and Genome Stability

Module Organiser: Prof. S. P. Jackson

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

M. W. F. 9 (Twenty-four lectures, beginning 7 Oct.)

L1 Mammalian Evolution and Faunal History

Module Organiser: Dr A. E. Friday

DR A. E. FRIDAY, DR E. M. WESTON AND
DR R. C. PREECEM. W. F. 10 (Twenty-four lectures, beginning
20 Jan.)**L2 Conservation Biology**

Module Organiser: Dr A. Balmford

DR M. BROOKE, DR I. HODGE, DR W. AMOS, DR D.
COOMES, DR R. GREEN, DR E. TANNER, DR
J. O'SULLIVAN AND DR A. BALMFORDM. W. F. 4 (Twenty-four lectures, beginning
20 Jan.)All lectures to take place in the *Main Lecture
Theatre*.**L3 Behavioural Ecology**

Module Organiser: Dr R. A. Johnstone

DR A. RADFORD, DR R. JOHNSTONE,
DR R. KILNER, PROF. T. H. CLUTTON-BROCK
AND DR W. FOSTERTu. Th. Sa. 10 (Twenty-four lectures,
beginning 19 Jan.)All lectures to take place in the *Main Lecture
Theatre*.**L4 Animal Energetics: the cost of living**

Module Organiser: Prof. C. P. Ellington

PROF. C. ELLINGTON, DR T. WEST, PROF. L. PECK
AND PROF. A. CLARKETu. Th. Sa. 11 (Twenty-four lectures,
beginning 19 Jan.)**L5 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
20 Jan.)**L6 Developmental Biology**

Module Organiser: Prof. P. Simpson

PROF. P. SIMPSON, DR H. SKAER, DR H. BAYLIS,
DR I. PALACIOS, DR C. ALONSO AND
DR N. GOMPELM. W. F. 5 (Twenty-four lectures, beginning
20 Jan.)**L7 Control of Gene Expression**

Module Organiser: Dr T. Krude

DR T. KRUDE, DR M. TORRES-PADILLA,
DR P. HURD, DR A. BANNISTER, DR J.
DOWNS, DR D. SCADDEN, DR H. BAYLIS,
DR C. SMITH, DR I. PALACIOS AND PROF. R.
JACKSONM. W. F. 9 (Twenty-four lectures, beginning
20 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. H. CLUTTON-BROCK, PROF. E. B.

KEVERNE, DR A. FRIDAY, DR M. BROOKE,
DR B. MCCABE, DR R. JOHNSTONE AND
DR N. MUNDYM. W. F. 10 (Seven lectures, beginning
28 Apr.)