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UNIVERSITY OF  
CAMBRIDGE

**NOTICES****Calendar**

29 May, *Thursday*. Ascension Day. Scarlet Day.

8 June, *Sunday*. Whitsunday. Scarlet Day. End of third quarter of Easter Term.

10 June, *Tuesday*. Discussion at 2 p.m. in the Senate-House (see below).

13 June, *Friday*. Full Term ends.

15 June, *Sunday*. Trinity Sunday. Scarlet Day.

**Discussions at 2 p.m.**

10 June

8 July

**Congregations**

18 June, *Wednesday* at 2.45 p.m. (Honorary Degrees)

25 June, *Wednesday* at 10 a.m. (General Admission)

26 June, *Thursday* at 10 a.m. (General Admission)

27 June, *Friday* at 10 a.m. (General Admission)

28 June, *Saturday* at 10 a.m. (General Admission)

19 July, *Saturday* at 10 a.m.

**Notice of a Discussion on Tuesday, 10 June 2014**

The Vice-Chancellor invites those qualified under the regulations for Discussions (*Statutes and Ordinances*, p. 103) to attend a Discussion in the Senate-House, on Tuesday, 10 June 2014, at 2 p.m. for the discussion of:

1. Report of the Council on the construction of an extension to the Wolfson Brain Imaging Centre for the Radiopharmaceutical Unit (p. 605).

**Amending Statutes for Wolfson College**

27 May 2014

The Vice-Chancellor gives notice that he has received from the Governing Body of Wolfson College, in accordance with the provisions of Section 7(2) of the Universities of Oxford and Cambridge Act 1923, the text of a proposed Statute to amend the Statutes of the College. The current Statutes of the College showing the proposed amendments are available on the College's website: <http://www2.wolfson.cam.ac.uk/files/statutes2014.pdf>.

Paper copies may be inspected at the University Offices until 10 a.m. on 16 June 2014.

**Election of student members of the Council and of the General Board**

27 May 2014

The Vice-Chancellor gives notice that, in the election held from Monday, 19 to Wednesday, 21 May 2014, the following person was elected to the Council and to the General Board in class (d).

**COUNCIL**

**Category (ii) – All eligible graduate students (1 place)**

VAN GIJN, Evianne, *CLH*

**GENERAL BOARD**

**Category (ii) – All eligible graduate students (1 place)**

VAN GIJN, Evianne, *CLH*

**Graduate Admissions statistics**

Graduate Admissions statistics for admission in 2012–13 and 2013–14 are now available on the Graduate Admissions website at <http://www.admin.cam.ac.uk/students/gradadmissions/about/>.

**Senate-House Yard and the University Combination Room: Notice of closure on Wednesday, 18 June 2014**

Both the Yard and the Combination Room will be closed on Wednesday, 18 June 2014, on the occasion of the Honorary Degree Congregation. Access to the University Offices will be from Trinity Lane. Only those with admission tickets for the Congregation and other authorized persons will be allowed to enter the Yard during the closure.

## General Admission to Degrees 2014: Notice of Procedure, Correction

The Notice published on 21 May 2014 (*Reporter*, 2013–14, 6348, p. 559) contained an error. The arrival time for graduands from Wolfson College and Clare Hall is 1.20 p.m. on Saturday 28 June 2014 (not 1.00 p.m. as previously stated). The timetable for the Congregation on 28 June is therefore as follows:

### Saturday 28 June

The doors of the Senate-House will be opened at 9.30 a.m. The Congregation will begin at 10 a.m. and graduands are asked to arrive by the following times.

Fitzwilliam College	9.50	Robinson College	1.55
Churchill College	10.40	Lucy Cavendish College and St Edmund's College	2.45
Murray Edwards College and Darwin College	11.30	Hughes Hall	3.20
Wolfson College and Clare Hall	1.20	Homerton College	4.00

The Congregation will be dissolved at about 5.15 p.m.

## VACANCIES, APPOINTMENTS, ETC.

### Vacancies in the University

A full list of current vacancies can be found at <http://www.jobs.cam.ac.uk>.

**University Lectureship in Experimental High Energy Physics in the Department of Physics;** salary: £37,756–£47,787; tenure: from 1 October 2014 or as soon as possible thereafter; closing date: 29 June 2014; further particulars: <http://www.jobs.cam.ac.uk/job/1567/>; quote reference: KA01314

**Assistant Finance Manager in the Finance Division of the University Offices;** salary: £33,562–£45,053; closing date: 12 June 2014; further particulars: <http://www.jobs.cam.ac.uk/job/4010/>; quote reference: AG03424

*The University values diversity and is committed to equality of opportunity.*

*The University has a responsibility to ensure that all employees are eligible to live and work in the UK.*

### Appointments, reappointment, and grants of title

The following appointments, reappointment, and grants of title have been made:

#### APPOINTMENTS

##### University Lecturers

*Earth Sciences.* Dr Edward Thomas Tipper, M.Sc., M.A., Ph.D., *M*, appointed from 1 September 2014 until the retiring age and subject to a probationary period of five years.

*English.* Dr Sarah Joanne McHugh (Dillon), M.A., *CL*, M.A., *Warwick*, D.Phil., *Sussex*, appointed from 1 April 2014 until the retiring age and subject to a probationary period of three years.

*Politics and International Studies.* Dr Christopher Robert Brooke, B.A., *Oxford*, A.M., Ph.D., *Harvard*, appointed from 1 September 2014 until the retiring age and subject to a probationary period of five years.

##### Head of Department

*History of Art.* Professor Paul Binski, M.A., Ph.D., FBA, FSA, *CAI*, appointed from 1 October 2014 until September 2016.

##### Departmental Secretary

*Computer Laboratory.* Ms Lise Myra Gough, B.Ec., *Adelaide*, Mrs Dinah Elizabeth Pounds, M.Ed., *TH*, B.A., *Open*, appointed from 1 October 2013 until the retiring age.

##### Senior Assistant Curator

*Archaeology and Anthropology.* Dr Jody Patrick Joy, B.A., M.A., Ph.D., *Southampton*, appointed from 1 May 2014 until the retiring age and subject to a probationary period of five years.

##### Senior Technical Officer

*Physics.* Mr Huw Prytherch, B.Sc., *UCNW Bangor*, appointed from 19 May 2014 until the retiring age and subject to a probationary period of nine months.

**Administrative Officers**

*University Offices (Finance Division)*. Mrs Susie Chan, appointed from 1 January 2013 until the retiring age.

*University Offices (Office of External Affairs and Communications)*. Ms Sarah Elizabeth Kathleen Collins, B.Mus., Newfoundland, M.A., Western Ontario, appointed from 5 May 2014 until the retiring age and subject to a probationary period of nine months.

**Senior Computer Officer**

*University Information Services*. Mr Andrew Robert Kent, B.A., Open, appointed from 1 May 2014 until the retiring age.

**Language Teaching Officer**

*Middle Eastern Studies*. Dr Aaron Douglas Hornkohl, B.A., La Mirada, California, M.A., Ph.D., Jerusalem, appointed from 1 October 2014 until the retiring age and subject to a probationary period of nine months.

## REAPPOINTMENT

**Head of Department**

*Department of Middle Eastern Studies*. Professor James Montgomery, TH, reappointed from 1 October 2015 to 30 September 2016.

## GRANTS OF TITLE

**Affiliated Lecturers**

*Earth Sciences*. Dr Elizabeth Mary Harper, has been granted the title of Affiliated Lecturer from 1 January 2014 until 31 December 2015.

*Law*. Dr Veronika Fikfak, HO, Dr Henry Mares, Dr Marc Moore, Dr Joseph Murray, DAR, Mr Peter William Neyroud, W, Dr Felix Steffek, and Mr Stelios Tofaris, G, have been granted the title of Affiliated Lecturer from 1 October 2013 until 30 September 2014.

**EVENTS, COURSES, ETC.****Announcement of lectures, seminars, etc.**

The University offers a large number of lectures, seminars, and other events, many of which are free of charge, to members of the University and others who are interested. Details can be found on Faculty and Departmental websites, and in the following resources.

The What's On website (<http://www.admin.cam.ac.uk/whatson/>) carries details of exhibitions, music, theatre and film, courses, and workshops, and is searchable by category and date. Both an RSS feed and a subscription email service are available.

Talks.cam (<http://www.talks.cam.ac.uk/>) is a fully searchable talks listing service, and talks can be subscribed to and details downloaded.

Brief details of upcoming events are given below.

<i>Mathematics</i>	The Rouse Ball Lecture, 2014: <i>Counting solutions to congruences: reciprocity laws and density theorems</i> , by Professor Richard Taylor at 11.30 on 19 June 2014 in Mill Lane Lecture Room 3	<a href="http://www.maths.cam.ac.uk/news/5.html">http://www.maths.cam.ac.uk/news/5.html</a>
<i>Mongolia and Inner Asia Studies Unit</i>	<i>Text and texture: Buddhist Scriptures and Tibetan papermaking traditions in light of new discoveries</i> , by Agnieszka Helman-Wazny, at 4.30 p.m. on 3 June 2014, in the Seminar Room, the Mond Building, Free School Lane	<a href="http://innerasiaresearch.org/">http://innerasiaresearch.org/</a>

**REGULATIONS FOR EXAMINATIONS****Natural Sciences Tripos, Part IA**

(*Statutes and Ordinances*, p. 399)

**With effect from 1 October 2014**

The regulations for the Tripos have been amended so as to change the method of assessment for the subject of Physiology of Organisms from one three-hour examination with records of practical work, to one three-hour examination plus a written practical examination of 90 minutes.

Regulation 17.

By deleting the subject Physiology of Organisms from sub-paragraph (a)(i) and inserting it into sub-paragraph (a)(iii).

By amending the text of sub-paragraph (b) so as to read:

(b) In addition to the written and practical examinations, for all subjects except Biology of Cells and Physiology of Organisms, candidates shall be required to submit records of practical work and/or fieldwork for each subject. Such records shall be presented for inspection on the request of the Examiners as follows: in Computer Science, on a date or dates announced by the Head of the Computer Laboratory no later than the division of Michaelmas Term; in Materials Science, on a date or dates announced by the Head of the Department of Materials Science and Metallurgy not later than the beginning of the Michaelmas Term; in Mathematics, on a date or dates to be announced by the Examiners not later than the beginning of the Michaelmas Term; in other subjects, on the day after the last written examination in that subject. The records shall bear the signatures of the teachers under whose direction the work was performed.

By amending the first paragraph of sub-paragraph (c) so as to read:

(c) In assigning marks for the examination in Earth Sciences, the Examiners may, at their discretion, take account of the note-books submitted by candidates. In assigning marks for the examination in all other subjects, except Biology of Cells and Physiology of Organisms, the Examiners shall take account of the records of practical work and/or fieldwork submitted by candidates. Assessment shall be undertaken by the Examiners or, for the following subjects, be provided to the Examiners from the following persons:

## NOTICES BY FACULTY BOARDS, ETC.

### Notice for the attention of courses intending to borrow papers from Parts IIA and IIB of the Engineering and Manufacturing Engineering Triposes

The Faculty Board of Engineering request notice of any course that intends to borrow a paper from the Engineering Tripos or the Manufacturing Engineering Tripos. This notice should be given by the end of the full Easter Term in the academical year before the course is run.

Notice should be sent to the Secretary of the Faculty Board of Engineering (email [fnm22@cam.ac.uk](mailto:fnm22@cam.ac.uk)), who will forward the request to the relevant Subject Group within the Department of Engineering. To satisfy timetabling, resourcing, or other constraints, the Subject Groups or the Faculty Board may impose a cap on the numbers of students from any particular course who may take a particular paper.

## Engineering Tripos, Parts IIA and IIB, 2014–15: Modules, Areas, and Sets

### PART IIA: MODULES

The Faculty Board of Engineering give notice that the modules prescribed for the examinations to be held in 2015, and the mode of examination for each module, will be as follows:

Unit	Title	Set	Mode	Notes
<i>Group A: Energy, fluid mechanics, and turbomachinery</i>				
3A1	Fluid mechanics I	IIAM8/L7	p	Double module
3A3	Fluid mechanics II	IIAM1/L1	p	Double module
3A5	Thermodynamics and power generation	IIAM7	p	
3A6	Heat and mass transfer	IIAL3	p	
<i>Group B: Electrical engineering</i>				
3B1	Radio frequency electronics	IIAM3	p	
3B2	Integrated digital electronics	IIAL3	p	
3B3	Switch-mode electronics	IIAM2	p	
3B4	Electric drive systems	IIAL2	p	
3B5	Semiconductor engineering	IIAM6	p	
3B6	Photonic technology	IIAL7	p	
<i>Group C: Mechanics, materials, and design</i>				
3C1	Materials processing and design (engineering)	IIAM5	p	Also runs as MET 3P1
3C5	Dynamics	IIAM6	p	
3C6	Vibration	IIAL6	p	
3C7	Mechanics of solids	IIAM4	p	
3C8	Machine design	IIAM3	p	
3C9	Fracture mechanics of materials and structures	IIAL5	p	

Unit	Title	Set	Mode	Notes
<i>Group D: Civil, structural, and environmental engineering</i>				
3D1	Geotechnical engineering I	IAM1	p	
3D2	Geotechnical engineering II	IAM1	p	
3D3	Structural materials and design	IAM2	p	
3D4	Structural analysis and stability	IAM2	p	
3D5	Water engineering	IAM8	p	
3D7	Finite element methods	IAM4	p	
3D8	Building physics and environmental geotechnics	IAM3	p	
<i>Group E: Management and manufacturing</i>				
3E1	Business economics	IAM9	p	
3E2	Marketing	IAM10	p	
3E3	Modelling risk	IAM9	p	
3E5	Human resource management	IAM10	p	
3E6	Organizational behaviour	IAM10	p	
3E10	Operations management for engineers	IAM9	p	
<i>Group F: Information engineering</i>				
3F1	Signals and systems	IAM5	p	
3F2	Systems and control	IAM5	p	
3F3	Signal and pattern processing	IAM6	p	
3F4	Data transmission	IAM4	p	
3F5	Computer and network systems	IAM4	p	
3F6	Software engineering and design	IAM1	p	
<i>Group G: Bioengineering</i>				
3G1	Introduction to molecular bioengineering	IAM7	p	
3G2	Mathematical physiology	IAM3	p	
3G3	Introduction to neuroscience	IAM2	p	
3G4	Medical imaging and 3D computer graphics	IAM1	p	
3G5	Biomaterials	IAM11	p	
<i>Group M: Multidisciplinary modules</i>				
3M1	Mathematical methods	IAM10	p	
<i>Group S: Modules shared with Part IIb</i>				
4C4	Design methods	IAM11	p	Shared module
4D16	Construction management	IAM8	p	Shared module
4M12	Partial differential equations and variational methods	IAM11	p	Shared module
4M16	Nuclear power engineering	IAM11	p	Shared module

**NOTES**

**Sets:** M = Michaelmas L = Lent  
**Assessment:** p = exam only p+c = exam and course-work

**PART IIA: AREAS**

To obtain honours in Part IIA of the Engineering Tripos, students must qualify in an Engineering Area. The requirements for each of the Engineering Areas, as sanctioned by the Faculty Board of Engineering, are available at <http://teaching.eng.cam.ac.uk/content/engineering-tripos-part-ii-a-2014-15-notice-concerning-engineering-areas>.

**PART IIA: SETS**

Candidates may not offer more than one module for examination from any one of the following numbered sets, and may not offer three or more modules from Groups I and S combined. Students may not take more than two management modules.

**Michaelmas**

Set	Unit	Title	Mode	Notes
IAM1	3A3	Fluid mechanics II	p	Double module
	3D1	Geotechnical engineering I	p	
	3G4	Medical imaging and 3D computer graphics	p	
IAM2	3B3	Switch-mode electronics	p	
	3D3	Structural materials and design	p	

<b>Set</b>	<b>Unit</b>	<b>Title</b>	<b>Mode</b>	<b>Notes</b>
IIAM3	3B1	Radio frequency electronics	p	
	3C8	Machine design	p	
	3D8	Building physics and environmental geotechnics	p	
IIAM4	3C7	Mechanics of solids	p	
	3F5	Computer and network systems	p	
IIAM5	3C1	Materials processing and design	p	
	3F1	Signals and systems	p	
IIAM6	3B5	Semiconductor engineering	p	
	3C5	Dynamics	p	
IIAM7	3A5	Thermodynamics and power generation	p	
	3G1	Introduction to molecular bioengineering	p	
IIAM8	3A1	Fluid mechanics I	p	Double module
	4D16	Construction management	p	Shared module
IIAM9	3E3	Modelling risk	p	
IIAM10	3E2	Marketing	p	
	3E5	Human resource management	p	
IIAM11	4C4	Design methods	p	Shared module
	3G5	Biomaterials	p	
<b>Lent</b>				
<b>Set</b>	<b>Unit</b>	<b>Title</b>	<b>Mode</b>	<b>Notes</b>
IIAL1	3A3	Fluid mechanics II	p	Double module
	3D2	Geotechnical engineering II	p	
	3F6	Software engineering and design	p	
IIAL2	3B4	Electric drive systems	p	
	3D4	Structural analysis and stability	p	
	3G3	Introduction to neuroscience	p	
IIAL3	3A6	Heat and mass transfer	p	
	3B2	Integrated digital electronics	p	
	3G2	Mathematical physiology	p	
IIAL4	3D7	Finite element methods	p	
	3F4	Data transmission	p	
IIAL5	3C9	Fracture mechanics of materials and structures	p	
	3F2	Systems and control	p	
IIAL6	3C6	Vibration	p	
	3F3	Signal and pattern processing	p	
IIAL7	3A1	Fluid mechanics I	p	Double module
	3B6	Photonic technology	p	
IIAL8	3D5	Water engineering	p	
IIAL9	3E1	Business economics	p	
	3E10	Operations management for engineers	p	
IIAL10	3E6	Organizational behaviour	p	
	3M1	Mathematical methods	p	
IIAL11	4M12	Partial differential equations and variational methods	p	Shared module
	4M16	Nuclear power engineering	p	Shared module

## PART IIB: MODULES

The Faculty Board of Engineering give notice that the modules prescribed for the examinations to be held in 2015, and the mode of examination for each module, will be as follows:

Unit	Title	Set	Mode	Notes
<i>Group A: Energy, fluid mechanics, and turbomachinery</i>				
4A2	Computational fluid dynamics	IIBM1	c	
4A3	Turbomachinery I	IIBM7	p+c	
4A4	Aircraft stability and control	IIBM10	c	Has course-work in Christmas vacation, and further lecture in Lent
4A7	Aerodynamics	IIBM3	c	
4A9	Molecular thermodynamics	IIBM6	p	
4A10	Flow instability	IIBL6	p	
4A12	Turbulence and vortex dynamics	IIBL3	p	
4A13	Combustion and IC engines	IIBL5	p	
<i>Group B: Electrical engineering</i>				
4B2	Power microelectronics	IIBM8	p	
4B5	Nanotechnology	IIBM10	p+c	
4B6	Solid state devices and chemical/biological sensors	IIBL3	p	
4B7	VLSI design, technology, and CAD	IIBL1	p+c	
4B11	Photonic systems	IIBM9	p	
4B13	Electronic sensors and instrumentation	IIBL2	p	
4B14	Solar-electronic power: generation and distribution	IIBM4	p+c	
4B19	Renewable electrical power	IIBM2	p	
4B20	Display technology	IIBL6	p	
4B21	Analogue integrated circuits	IIBM3	p	
<i>Group C: Mechanics, materials, and design</i>				
4C2	Designing with composites	IIBM5	p+c	
4C3	Electrical and nano materials	IIBM6	p	
4C4	Design methods	IIBM2	p	Shared with Part IIA
4C5	Design case studies	IIBL4	c	
4C6	Advanced linear vibrations	IIBM4	p+c	
4C7	Random and non-linear vibrations	IIBM8	p+c	
4C8	Applications of dynamics	IIBL1	p+c	
4C9	Continuum mechanics	IIBM7	p	
4C15	MEMS: design	IIBL6	p+c	
4C16	Advanced machine design	IIBL9	p+c	
<i>Group D: Civil, structural, and environmental engineering</i>				
4D4	Construction engineering	IIBL8	c	
4D5	Foundation engineering	IIBL5	p+c	
4D6	Dynamics in civil engineering	IIBL2	p+c	
4D7	Concrete structures	IIBM4	p+c	
4D10	Structural steelwork	IIBM5	p+c	
4D13	Architectural engineering	IIBM12	c	
4D14	Contaminated land and waste containment	IIBM1	p+c	
4D15	Sustainable water engineering	IIBL4	c	
4D16	Construction management	IIBM9	p	Shared with Part IIA
4D17	Plate and shell structures	IIBM3	c	
<i>Group E: Management and manufacturing</i>				
4E3	Information systems	IIBM15	c	
4E4	Management of technology	IIBM17	c	
4E5	International business economics	IIBL12	c	
4E6	Accounting and finance	IIBM16	c	
4E11	Strategic management	IIBL13	c	
4E12	Project management	IIBL14	c	Part IIB Engineering students only
<i>Group F: Information engineering</i>				
4F1	Control system design	IIBM6	p+c	
4F2	Robust and non-linear systems and control	IIBL9	p	
4F3	Optimal and predictive control	IIBL2	p	
4F5	Advanced communications and coding	IIBM7	p	



Unit	Title	Set	Mode	Notes
4F7	Digital filters and spectrum estimation	IIBM8	p	
4F8	Image processing and image coding	IIBL3	p	
4F10	Statistical pattern processing	IIBM9	p	
4F11	Speech and language processing	IIBL1	p	
4F12	Computer vision and robotics	IIBM2	p	
4F13	Machine learning	IIBL8	c	
<i>Group G: Bioengineering</i>				
4G1	Mathematical biology of the cell	IIBL6	c	
4G2	Biosensors	IIBL5	c	
4G3	Computational neuroscience	IIBL4	c	
4G4	Biomimetics	IIBL7	c	
4G5	Molecular modelling	IIBM3	c	
4G6	Cellular and molecular biomechanics	IIBM10	p	
<i>Group I: Imported modules</i>				
4I1	Strategic valuation (TPE6)	IIBM18	c	Christmas vacation module Numbers will be capped Borrowed from Technology Policy M.Phil.
4I5	Nuclear materials	IIBL16	p	Borrowed from Nuclear Energy M.Phil.
4I7	Electricity and environment (TPE7)	IIBL7	c	Borrowed from Technology Policy M.Phil.
4I8	Medical physics	IIBL10	p	Borrowed from Physics
4I9	Low power embedded systems programming	IIBM19	c	Numbers will be capped Borrowed from Advanced Computer Science M.Phil.
4I10	Nuclear reactor engineering	IIBM13	p	Borrowed from Nuclear Energy M.Phil.
4I11	Advanced fission and fusion systems	IIBL10	p	Borrowed from Nuclear Energy M.Phil.
4I12	Social and technological network analysis (L109)	IIBL17	c	Numbers will be capped Borrowed from Advanced Computer Science M.Phil.
4I13	Flow of networks (L110)	IIBL18	c	Numbers will be capped Borrowed from Advanced Computer Science M.Phil.
<i>Group M: Multidisciplinary modules</i>				
4M1	French	IIBL15	c	
4M2	German	IIBL15	c	
4M3	Spanish	IIBM11	c	
4M4	Japanese	IIBM11	c	
4M6	Materials and processes for microsystems (MEMS)	IIBM1	p+c	
4M9	Surveying field course	LV1	c	Long vacation module Numbers will be capped
4M12	Partial differential equations and variational methods	IIBL11	p	Shared with Part IIA
4M14	Sustainable development	IIBM13	c	
4M15	Sustainable energy	IIBL8	p+c	
4M16	Nuclear power engineering	IIBL11	p	Shared with Part IIA
4M17	Practical optimization	IIBM14	c	
4M18	Present and future energy systems	IIBM5	p	
4M19	Advanced building physics	IIBM14	c	

**NOTES**

c = Course-work

p = Exam

p+c = Exam and course-work

**PART IIB: AREAS**

To obtain honours in Part IIB of the Engineering Tripos, students must take modules that qualify for an Engineering Area. The requirements for each of the Engineering Areas, as sanctioned by the Faculty Board of Engineering, are available at <http://teaching.eng.cam.ac.uk/content/engineering-tripos-part-iib-2014-15-notice-concerning-engineering-areas>.

## PART IIB: SETS

Candidates, when choosing modules for examination, may not offer more than one module from any one of the numbered sets. In addition, students may take not more than three from the following: any of the 4E papers; 4I1 and 4I7; 4M1–4, and (when available) 4D16.

No candidate who offered any module for Part IIA may again offer the same module for Part IIB.

There will be no Group R (research) modules available to Part IIB students in 2014–15.

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Set	Unit	Title	Mode	Notes
IIBM1	4A2	Computational fluid dynamics	c	
	4D14	Contaminated land and waste containment	p+c	
	4M6	Materials and processes for microsystems (MEMS)	p+c	
IIBM2	4B19	Renewable electrical power	p	Shared with Part IIA
	4C4	Design methods	p	
	4F12	Computer vision and robotics	p	
IIBM3	4A7	Aerodynamics	c	
	4B21	Analogue integrated circuits	p	
	4D17	Plate and shell structures	c	
	4G5	Molecular modelling	c	
IIBM4	4B14	Solar-electronic power: generation and distribution	p+c	
	4C6	Advanced linear vibrations	p+c	
	4D7	Concrete structures	p+c	
IIBM5	4C2	Designing with composites	p+c	
	4D10	Structural steelwork	p+c	
	4M18	Present and future energy systems	p	
IIBM6	4A9	Molecular thermodynamics	p	
	4C3	Electrical and nano materials	p	
	4F1	Control system design	p+c	
IIBM7	4A3	Turbomachinery I	p+c	
	4C9	Continuum mechanics	p	
	4F5	Advanced communications and coding	p	
IIBM8	4B2	Power microelectronics	p	
	4C7	Random and non-linear vibrations	p+c	
	4F7	Digital filters and spectrum estimation	p	
IIBM9	4D16	Construction management	p	Shared with Part IIA
	4B11	Photonic systems	p	
	4F10	Statistical pattern processing	p	
IIBM10	4A4	Aircraft stability and control	c	
	4B5	Nanotechnology	p+c	
	4G6	Cellular and molecular biomechanics	p	
IIBM11	4M3	Spanish	c	
	4M4	Japanese	c	
IIBM12	4D13	Architectural engineering	c	
IIBM13	4I10	Nuclear reactor engineering	p	
	4M14	Sustainable development	c	
IIBM14	4M17	Practical optimization	c	
	4M19	Advanced building physics	c	
IIBM15	4E3	Information systems	c	
IIBM16	4E6	Accounting and finance	c	
IIBM17	4E4	Management of technology	c	
IIBM18	4I1	Strategic valuation (TPE6)	c	Christmas vacation module Numbers will be capped
IIBM19*	4I9	Low power embedded systems programming	c	Numbers will be capped May clash with other sets

**Lent**

<b>Set</b>	<b>Unit</b>	<b>Title</b>	<b>Mode</b>	<b>Notes</b>
IIBL1	4B7	VLSI design, technology, and CAD	p+c	
	4C8	Applications of dynamics	p+c	
	4F11	Speech and language processing	p	
IIBL2	4B13	Electronic sensors and instrumentation	p	
	4D6	Dynamics in civil engineering	p+c	
	4F3	Optimal and predictive control	p	
IIBL3	4A12	Turbulence and vortex dynamics	p	
	4B6	Solid state devices and chemical/biological sensors	p	
	4F8	Image processing and image coding	p	
IIBL4	4C5	Design case studies	c	
	4D15	Sustainable water engineering	c	
	4G3	Computational neuroscience	c	
IIBL5	4A13	Combustion and IC engines	p	
	4G2	Biosensors	c	
	4D5	Foundation engineering	p+c	
IIBL6	4A10	Flow instability	p	
	4B20	Display technology	p	
	4C15	MEMS: design	p+c	
	4G1	Mathematical biology of the cell	c	
IIBL7	4G4	Biomimetics	c	
	4I7	Electricity and environment	c	
IIBL8	4D4	Construction engineering	c	
	4F13	Machine learning	c	
	4M15	Sustainable energy	p+c	
IIBL9	4C16	Advanced machine design	p+c	
	4F2	Robust and non-linear systems and control	p	
IIBL10*	4I8	Medical physics	p	May clash with other sets
	4I11	Advanced fission and fusion systems	p	May clash with other sets
IIBL11	4M12	Partial differential equations and variational methods	p	Shared with Part IIA
	4M16	Nuclear power engineering	p	Shared with Part IIA
IIBL12	4E5	International business economics	c	
IIBL13	4E11	Strategic management	c	
IIBL14	4E12	Project management	c	Part IIB Engineering students only
IIBL15	4M1	French	c	
	4M2	German	c	
IIBL16*	4I5	Nuclear materials	p	May clash with other sets
IIBL17*	4I12	Social and technological network analysis	c	May clash with other sets
IIBL18*	4I13	Flow of networks	c	May clash with other sets

**Long Vacation**

LV1	4M9	Surveying field course	c	Numbers will be capped
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\* Please note that as the Faculty Board do not have exclusive control over all sets they cannot guarantee that those marked with a star will not clash with any other set.

## Manufacturing Engineering Tripos, Part IIA, 2014–15: Modules

The Faculty Board of Engineering give notice that the modules prescribed for the examinations to be held in 2015 will be as follows:

- 3P1. Materials into products
- 3P2. Operation and control of production machines and systems
- 3P3. Product design
- 3P4. Operations management
- 3P5. Industrial engineering
- 3P6. Organizational behaviour
- 3P7. Managing business and people
- 3P8. Financial and management accounting
- 3P9. Industrial economics, strategy, and governance
- 3P10. Contemporary issues in manufacturing

All modules will be assessed by examination only, with the exception of module 3P3, which will be assessed by course-work only.

## FORM AND CONDUCT OF EXAMINATIONS, 2014–15

Notices by Faculty Boards, or other bodies concerned, of changes to the form and conduct of certain examinations to be held in 2014–15, by comparison with those examinations in 2013–14, are published below. Complete details of the form and conduct of all examinations are available from the Faculties or Departments concerned.

### Final Veterinary Examination Part I, 2014–15

The Faculty Board of Veterinary Medicine give notice that with effect from the examination to be held in 2014–15, the form of the examination for the following written papers of the Final Veterinary Examination Part I will be changed as follows:

#### *Paper 1 – Respiratory system*

The examination will be of 90 minutes' duration and will consist of nine stations. Each station will be of 10 minutes' duration and based on a pathological specimen, histopathology slide, photograph, radiograph, or data. Each station will have five multiple choice questions. The examination will be held in Easter Term and will cover material delivered in the lectures and practicals of the course of that name. Candidates will move from station to station at 10-minute intervals and should attempt all questions.

#### *Paper 2 – Radiography and radiology*

The name of the examination will be changed to *Principles of clinical practice*. Examinable material will be that covered in the following lecture courses: Radiography and radiology, Principles of oncology, Principles of surgery, Clinical pharmacology and anaesthesia. The examination will be conducted in the Michaelmas Term and will be of 90 minutes' duration and will be of 60 multiple choice questions. Candidates should attempt all questions.

#### *Paper 5 – Principles of microbiological disease in animals*

The name of the examination will be changed to *Principles of infectious diseases*. Examinable material will be that covered in the lectures and practicals of the course of that name. The examination will be conducted in the Michaelmas Term and will be of 90 minutes' duration and will be of 60 multiple choice questions. Candidates should attempt all questions.

#### *Paper 7 – Alimentary system 1, and Paper 11 – Alimentary system 2*

These examinations will be combined into a single examination, *Alimentary system*, that will be held in Lent Term and will cover material delivered in the lectures and practicals of the course of that name. The examination will be of 120 minutes' duration and will consist of 12 stations, each of 10 minutes' duration and based on a pathological specimen, histopathology slide, photograph, radiograph, or data. Each station will have five multiple choice questions. Candidates will move from station to station at 10-minute intervals and should attempt all questions.

#### *Paper 8 – Nutrition*

The name of the examination will be changed to *Integrated animal management* and will cover the material delivered in lectures and practicals of the following courses: Animal housing, Animal welfare, Equine husbandry, and Nutrition. The examination will be held in the Lent Term and will be of 60 minutes' duration and will comprise 40 multiple choice questions. Candidates should attempt all questions.

#### *Paper 15 – Veterinary public health*

The examination will be of 90 minutes' duration with 60 multiple choice questions. Candidates should attempt all questions.

The following papers will be withdrawn: *Paper 2 – Radiography and radiology*; *Paper 3 – Parasitology*; *Paper 7 – Alimentary 1*; *Paper 8 – Nutrition*; and *Paper 11 – Alimentary 2*. Papers consecutive to Paper 2 will be re-numbered.

The list of Final Veterinary Examination Part I component examinations, with effect from the academical year 2014–15, shall be as follows:

Paper 1.	Respiratory system
Paper 2.	Principles of clinical practice
Paper 3.	Dermatology
Paper 4.	Principles of infectious diseases
Paper 5.	Clinical pathology
Paper 6.	Alimentary system
Paper 7.	Integrated animal management
Paper 8.	Urology
Paper 9.	Animal breeding
Paper 10.	Neurology
Paper 11.	Endocrinology and metabolic diseases
Paper 12.	Cardiology
Paper 13.	Veterinary public health

## REPORTS

### Report of the Council on the construction of an extension to the Wolfson Brain Imaging Centre for the Radiopharmaceutical Unit

The COUNCIL begs leave to report to the University as follows:

1. The existing Radiopharmaceutical Unit at the Wolfson Brain Imaging Centre (WBIC) needs to be reconfigured and extended in order to manufacture the increasing number and range of PET radiopharmaceuticals required at the Addenbrooke's site in support of, *inter alia*, the imaging programmes of the Cambridge Biomedical Research Centre (BRC) and the recently established Biomedical Research Unit (BRU) in Dementia. In addition, the new facility will enable the Unit to comply fully with European GMP (Good Manufacturing Practice) pharmaceutical legislation for facilities, in accordance with the requirements of the UK Medicine and Healthcare products Regulatory Agency (MHRA).

2. The proposed 89m<sup>2</sup> two-storey extension to the existing processing laboratory will be constructed on an extended existing concrete slab adjacent to the WBIC cyclotron, which is also part of the radiochemistry laboratory. The ground floor will consist of a lobbied changing room and a Class C clean laboratory which will contain up to six lead-lined units (hot cells) for the production of GMP radiopharmaceuticals, and refurbished Quality Control and support laboratories. The hot cells will be maintained by means of an isolated service corridor with access from the existing laboratory. Stairs lead to a

second floor, providing space for the Cyclotron Engineering Laboratory, a write-up/laboratory support area for routine manufacture, and a toilet. All mechanical and electrical work will integrate with the existing infrastructure, which is in reasonable condition.

3. The project will include the installation of more efficient mechanical and electrical systems, which will reduce their operating costs, but any overall increase in recurrent costs will be met from the income generated by increased radiopharmaceutical production.

4. The building work is scheduled to begin in July 2014 on a 28-week contract. The total estimated project cost is £2,018,200, for a total project area of 175m<sup>2</sup>, of which 89m<sup>2</sup> is the new build. The full cost will be met from the School of Clinical Medicine's existing resources and the Capital Fund in roughly equal proportions.

5. The application for Planning Permission was submitted in July 2013 and full approval was received in September 2013.

6. Drawings of the proposed scheme are displayed for the information of the University in the Schools Arcade. A map showing the location of the WBIC and the proposed extension is shown below.

#### 7. The Council recommends:

I. That approval is given for the construction of an extension to and reconfiguration of the Wolfson Brain Imaging Centre for the Radiopharmaceutical Unit as described in this Report.

II. That the Pro-Vice-Chancellor for Planning and Resources, on the advice of the Director of Estate Strategy, be authorized to accept a tender for the building contract and all associated works in due course.

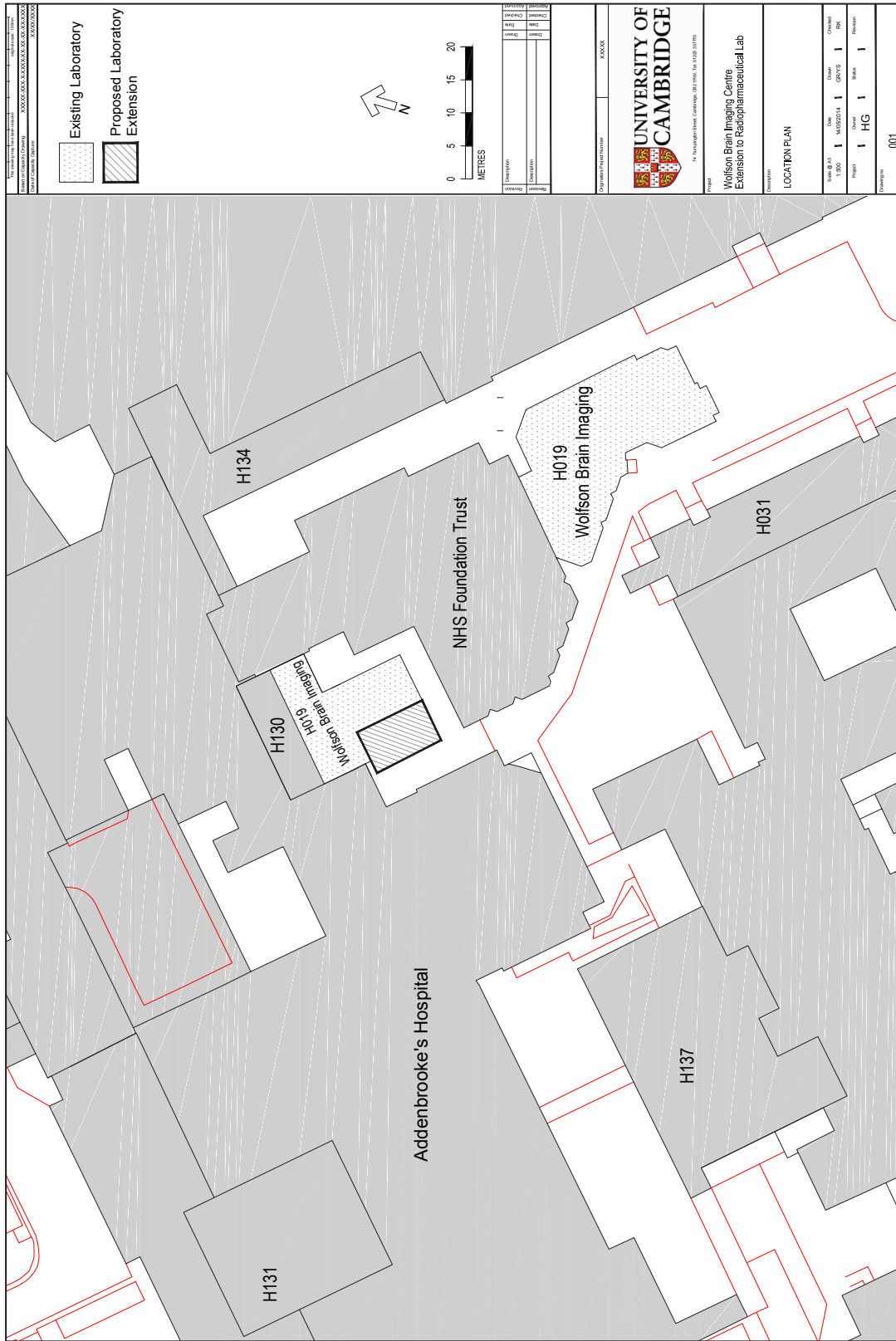
28 May 2014

L. K. BORYSIEWICZ, *Vice-Chancellor*  
 JEREMY CADDICK  
 STEPHEN J. COWLEY  
 ATHENE DONALD  
 DAVID GOOD  
 ANDY HOPPER  
 RICHARD JONES

FIONA KARET  
 F. P. KELLY  
 MARK LEWISOHN  
 REBECCA LINGWOOD  
 MAVIS McDONALD  
 SUSAN OOSTHUIZEN  
 FLICK OSBORN

RACHAEL PADMAN  
 JOHN SHAKESHAFT  
 JEAN THOMAS  
 I. H. WHITE  
 A. D. YATES

Location map: Wolfson Brain Imaging Centre and proposed extension for the Radiopharmaceutical Unit



**GRACES****Graces submitted to the Regent House on 29 May 2014**

The Council submits the following Graces to the Regent House. These Graces, unless they are withdrawn or a ballot is requested in accordance with the regulations for Graces of the Regent House (*Statutes and Ordinances*, p. 103), will be deemed to have been approved at 4 p.m. on Friday, 6 June 2014.

1. That Regulation 3 for the Dr Amanda Perreau-Saussine de Ezcurra Law Prize Fund (*Statutes and Ordinances*, p. 906) be rescinded and Regulation 4 be renumbered 3 and amended so as to read:<sup>1</sup>

3. The Prize shall be awarded annually by the Examiners for the LL.M. Examination for outstanding performance in:

- (a) the subject Foundations of International Law or such paper as the Faculty Board may announce;
- or (b) an LL.M. thesis submitted in lieu of the written examination in that paper, so long as the Examiners consider that the thesis falls within the scope of the Prize's title;
- or (c) a combination of (a) and (b).

2. That Regulations 2–4 for the Alexander Pike Fund (*Statutes and Ordinances*, p. 909) be amended so as to read:<sup>2</sup>

2. The first charge on the income of the Fund shall be the provision of a prize called the Alexander Pike Prize. The Adjudicators for the Prize shall be the Head of Department of Architecture and two persons appointed by the General Board on the recommendations of the Faculty Board of Architecture and History of Art. The Prize shall be awarded annually by the Adjudicators to the graduate student of the Faculty, or group of such students making a joint submission, who in the judgement of the Adjudicators has or have submitted the best design, written work, or research on a subject connected with the philosophy and practice of sustainable design as part of their course-work in subjects for the degree of Master of Philosophy or for such other degree as determined by the Adjudicators.

3. The value of the Prize shall be such sum as shall be determined by the Adjudicators within a range approved from time to time by the Council.

4. After the provision of the Prize, or if for any reason the Prize is not awarded in any year, the second charge on the income of the Fund shall be the provision of an award, called the Alexander Pike Award, which may be made each year by the Adjudicators for the Prize to any member of the Faculty of Architecture and History of Art on the basis of a proposal related to the delivery of lectures, research, designs, exhibitions or publications dealing with the philosophy and practice of sustainable design, the value of which shall be determined by the Adjudicators within a range approved from time to time by the Council.

3. That the Sindall Prize (*Statutes and Ordinances*, p. 943) be retitled the 'Morgan Sindall Prize' and Regulation 3 be amended so as to read:<sup>2</sup>

3. At their final meeting of the year the Examiners for the degree of Master of Philosophy in subjects for that degree or for such other degree as determined by the Adjudicators shall identify the three best designs submitted by graduate students for those examinations as part of their studio-work. These designs shall be referred to the Adjudicators, who shall award the Prize for the design which in their opinion gives the best evidence of attention to the mode of construction, the selection and use of materials, and the likely behaviour of the building fabric over a period of time.

<sup>1</sup> This change, made on the recommendation of the Faculty Board of Law, obviates the need for the Faculty Board to identify each year papers that are deemed to be within the scope of the Prize by establishing a default subject.

<sup>2</sup> These changes, made on the recommendation of the Faculty Board of Architecture and History of Art and with the agreement of donor representatives, amend the subject for which the Prizes are awarded and enable the Alexander Pike Award to be granted to any member of the Faculty of Architecture and History of Art, following the rescission of the Diploma in Architecture. An amendment to the title of the Sindall Prize is being proposed to reflect the current name of the donor.

J. W. NICHOLLS, *Registrar*

**END OF THE OFFICIAL PART OF THE 'REPORTER'**

**COLLEGE NOTICES****Vacancies**

*Murray Edwards College*: Official Teaching Fellowship in Biochemistry for post-doctoral researcher (four hours per week); allowance: £4,000, plus payment for supervisions and other benefits; closing date: 2 June 2014; further particulars: <http://www.murrayedwards.cam.ac.uk/about/vacancies/collegevacancies/>

*Newnham College*: Bursar; start: from 1 October 2014; stipend: £68,000–£78,800; closing date: 24 June 2014; further particulars: <http://www.odgers.com/46583> and <http://www.newn.cam.ac.uk/joining-newnham/other-posts/>

*Pembroke College*: Schools Liaison and Admissions Support Officer; salary: £24,289–£32,590; tenure: three years with the possibility of reappointment thereafter; closing date: 16 June 2014; further particulars: <http://www.pem.cam.ac.uk/the-college/job-vacancies/#ao>

*St John's College*: Fellowship in Anatomy; stipend: £6,085–£9,297 a year plus College benefits; closing date: 16 June 2014; further particulars: <http://www.joh.cam.ac.uk/fellowship-anatomy>

Fellowship in Pharmacology; stipend: £6,085–£9,297 a year plus College benefits; closing date: 16 June 2014; further particulars: <http://www.joh.cam.ac.uk/fellowship-pharmacology>

**Events**

*Hughes Hall*: Poetry lecture by Sir Andrew Motion entitled *When the Sun Shone in Vain: Edward Thomas and the War Poets*, at 7.00 p.m. on Wednesday, 4 June 2014 in the Pavilion Room, Hughes Hall. For tickets and information please contact [events@hughes.cam.ac.uk](mailto:events@hughes.cam.ac.uk). All are welcome.

**SOCIETIES, ETC.****Friends of Cambridge University Library**

A meeting of the Friends of Cambridge University Library will be held on Wednesday, 4 June 2014, at 5.30 p.m., in the Milstein Seminar Rooms, University Library, West Road, at which Sir Charles Chadwyck-Healey will give a talk entitled *The literature of liberation*. Further details are available at <http://www.lib.cam.ac.uk/friends/programme.html>.

**EXTERNAL NOTICES****University of Oxford**

*University College*: 6-hour Stipendiary Lecturership in Classical Language; stipend: £12,507–14,066, plus additional benefits; closing date: 12 noon, 20 June 2014; further particulars: <http://www.univ.ox.ac.uk/content/stipendiary-lecturership-classical-languages>

*Wadham College*: Stipendiary Lecturer in Chemistry; stipend: £12,507 in year one (6-hour), £6,253 in years two to five (3-hour), plus College benefits; closing date: 12 noon, 19 June 2014; further particulars: <http://www.wadham.ox.ac.uk/about-wadham/jobs>

Stipendiary Lecturer in English Literature; stipend: £12,507 p.a., plus College benefits; closing date: 12 noon, 19 June 2014; further particulars: <http://www.wadham.ox.ac.uk/about-wadham/jobs>

*Worcester College*: Director of Chapel Music (part-time); tenure: three years from October 2014; stipend: £13,500–£14,500; closing date: 16 June 2014; further particulars: <http://www.worc.ox.ac.uk/Notices-and-News>

Notices for publication in the *Reporter* should be sent to the Editor, Cambridge University Reporter, Registry's Office, The Old Schools, Cambridge, CB2 1TN (tel. 01223 332305, email [reporter.editor@admin.cam.ac.uk](mailto:reporter.editor@admin.cam.ac.uk)). Copy should be sent as early as possible in the week before publication; short notices will be accepted up to **4 p.m. on Thursday** for publication the following Wednesday. Inclusion of notices is at the discretion of the Editor.

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