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UNIVERSITY OF
CAMBRIDGE

NOTICES

Calendar

- 21 July, *Friday*. Congregation of the Regent House at 9.30 a.m. in Great St Mary's, the University Church.
 22 July, *Saturday*. Congregation of the Regent House at 9.30 a.m. in Great St Mary's, the University Church.
 25 July, *Tuesday*. Discussion by videoconference at 2 p.m.
 26 July, *Wednesday*. Last ordinary issue of the *Reporter* in the 2022–23 academic year.

Discussion on Tuesday, 25 July 2023

The Vice-Chancellor invites members of the Regent House, University and College employees, registered students and others qualified under the regulations for Discussions (*Statutes and Ordinances*, p. 111) to attend a Discussion by **videoconference** on Tuesday, 25 July 2023 at 2 p.m. The following items will be discussed:

1. Report of the Council, dated 12 July 2023, on the demolition of derelict buildings on the North West Cambridge Estate (*Reporter*, 6708, 2022–23, p. 847).
2. Report of the Council, dated 12 July 2023, on the establishment of an office of Chief Financial Officer (*Reporter*, 6708, 2022–23, p. 849).

Those wishing to join the Discussion by videoconference should email UniversityDraftsman@admin.cam.ac.uk from their University email account, providing their CRSid (if a member of the collegiate University), by 10 a.m. on the date of the Discussion to receive joining instructions. Alternatively contributors may email their remarks to contact@proctors.cam.ac.uk, copying ReporterEditor@admin.cam.ac.uk, by no later than 10 a.m. on the day of the Discussion for reading out by the Proctors,¹ or may ask someone else who is attending to read the remarks on their behalf.

In accordance with the regulations for Discussions, the Chair of the Board of Scrutiny or any ten members of the Regent House² may request that the Council arrange for one or more of the items listed for discussion to be discussed in person (usually in the Senate-House). Requests should be made to the Registry, on paper or by email to UniversityDraftsman@admin.cam.ac.uk from addresses within the cam.ac.uk domain, by no later than 9 a.m. on the day of the Discussion. Any changes to the Discussion schedule will be confirmed in the *Reporter* at the earliest opportunity.

General information on Discussions is provided on the University Governance site at <https://www.governance.cam.ac.uk/governance/decision-making/discussions/>.

¹ Any comments sent by email should please begin with the name and title of the contributor as they wish it to be read out and include at the start a note of any College and/or Departmental affiliations held.

² <https://www.scrutiny.cam.ac.uk/> and https://www.admin.cam.ac.uk/reporter/regent_house_roll/.

Grace 2 of 12 July 2023: Correction

The Vice-Chancellor gives notice under Regulation 15 of the Ordinance on Graces and Congregations of the Regent House (*Statutes and Ordinances*, p. 112) of a correction to Grace 2 of 12 July 2023. The Grace, when originally published, should have sought the approval of the recommendations in paragraph 8 as well as those in paragraph 7 of the Report. The text has since been corrected.

Study to assess the impact of the fossil fuel industry ties Grace on the University's ability to pursue its mission

17 July 2023

In July 2022 members of the University proposed a Grace calling for an end to all sponsorship and collaboration with companies involved in the fossil fuel industry (*Reporter*, 6666, 2021–22, p. 640). The Council responded in October 2022 by commissioning a study (the Study) to analyse the likely impact of the proposals on the University's research and teaching activities, and to assess whether the implementation of the Grace would be compatible with the University's mission and its duties as a higher education charity (*Reporter*, 2022–23: 6673, p. 84; 6680, p. 208; 6695, p. 590). The Study was led by Nigel Topping, a member of the Climate Change Committee and former UN Climate Change High Level Champion for COP26. It is available at: <https://www.admin.cam.ac.uk/reporter/documents/reports/FossilFuelStudy2023.pdf>.

The Council received the Study at its meeting on 17 July 2023 and held an initial discussion about its findings. When commissioning the Study, the Council's principal aim was to enable the University to have a thorough and deep debate about the advantages and disadvantages of the Grace, as well as of alternative formulations and approaches. To facilitate this debate and to bring it to a timely conclusion, the Council has established an informal working group, comprising four members of the Council, the Pro-Vice-Chancellor for Research and the Pro-Vice-Chancellor for Enterprise and Business Relations. The working group will address two points over the summer. First, it will examine the four recommendations of the Study to consider whether and, if so, how they might be implemented, including whether any might be capable of acceptance without wider consultation. Secondly, it will propose a format for consultation across the collegiate University during Michaelmas Term 2023 about the Grace, informed by the findings of the Study, with the aim of enabling the University to reach a conclusion on the issues by the end of the calendar year. The working group will report to the Council in October 2023.

NOTICES BY THE GENERAL BOARD

Academic Career Pathways: Appeals 2023

The procedure for the Academic Career Pathways scheme provides for applicants to have the right to lodge an appeal against the decision of the Vice-Chancellor's Committee not to promote. In accordance with the practice that Committee membership for the Academic Career Pathways exercise be published, the members of the Appeals Committee for the 1 October 2023 exercise agreed by the General Board are as follows:

Professor Fiona Karet (Chair)
 Professor Paul Midgley
 Professor Rodolphe Sepulchre
 Professor Helen Thompson
 Professor Nick White
Secretary: Sarah Fecondi

REGULATIONS FOR EXAMINATIONS

History and Modern Languages Tripos

(*Statutes and Ordinances*, p. 358)

With effect from 1 October 2023

The General Board, on the recommendation of the Faculty Board of Modern and Medieval Languages and Linguistics, has approved the amendment of the regulations for the History and Modern Languages Tripos to update the paper details and allow a mark of distinction for special excellence in the Part II oral examination, as follows:

Regulation 6.

By adding the following sentence to the end of Regulation 6:

A mark of distinction may be awarded in Part II for special excellence in the oral examination.

Regulation 17.

By adding the following paper under Section B of Regulation 17(iv):

Paper 2. Essay Paper (Special Subject Paper 2 of Part II of the Historical Tripos)

And by adding a new second sentence to the final paragraph of the regulation so that it reads as follows:

provided that a candidate who has previously offered a paper from Schedule B cannot offer another paper from that Schedule, and provided that no candidate may offer more than one paper from Schedule B. The examination for papers marked with an asterisk in Schedules B and C will consist of a written examination of three hours' duration *and* an essay of not more than 1,800 words. The Faculty Board shall have discretion in exceptional circumstances to allow a candidate, on the application of their Tutor, to offer these papers in a language listed in Regulation 10 which they did not offer as a language paper in Part IA or Part IB.

SCHEDULE A.

By amending the title of Paper Sl.3 to 'The making of Ukraine: History and culture of early modernity'.

By amending the title of Paper Sl.11 to 'Topics in nineteenth-century Slavonic literature and culture'.

SCHEDULE B.

By adding an asterisk against Paper Sl.15 'Topics in Slavonic studies: cultural histories of the present (Part IB and Part II)' to note the examination at Part II will consist of a written examination of three hours' duration and an essay of no more than 1,800 words.

SCHEDULE C

By adding a footnote against Papers CS.5 and CS.7 to read 'Candidates may only offer one of the following papers: CS.5 or CS.7.'

By amending the footnote to Paper Ge.8 to suspend the paper in 2023–24 and 2024–25 but make it available by optional dissertation.

By adding a footnote to suspend Papers Ge.10 and Sl.6 in 2023–24 but make them available by optional dissertation.

By amending the title of Paper Ge.14 to read 'A special topic in German studies to be specified by the Faculty Board from time to time' and adding a footnote to suspend it in 2023–24 and not make it available to be offered by optional dissertation.

By amending the title of Paper Sp.10 to 'Modern Catalan language and culture'.

By amending the title of Paper Sl.3 to 'The making of Ukraine: History and culture of modernity'.

By amending the title of Paper Sl.11 to 'Topics in nineteenth-century Slavonic literature and culture'.

By adding an asterisk against the following papers to note that the examination at Part II will consist of a written examination of three hours' duration and an essay of no more than 1,800 words:

- CS.1 The Romance languages
- CS.3 The Slavonic languages
- CS.5 The body
- CS.7 Cinema and the political
- Fr.7 Topics in medieval studies to be specified by the Faculty Board from time to time
- Fr.8 Wondrous forms in the age of Montaigne
- Fr.9 Reason, experience and authority: French literature, thought, and history, 1594–1700
- Fr.10 Enlightenment and its limits
- Fr.11 Power and desire in nineteenth-century French culture
- Fr.12 Ethics and experience: Literature, thoughts, and visual culture of the French-speaking world (1900 to the present)
- Fr.13 The French language: Variation and change
- Fr.14 A special topic in French studies (A) to be specified by the Faculty Board from time to time
- Fr.15 A special topic in French studies (B) to be specified by the Faculty Board from time to time
- Fr.16 A special topic in French studies (C) to be specified by the Faculty Board from time to time
- Ge.9 The making of German culture
- Ge.11 The modern German historical imagination
- Ge.12 Revolutions in German literature, thought and history from 1830 to 1945
- Ge.13 Memory and identity in German-speaking Europe since 1945
- It.6 Modern Italian culture
- It.7 Dante and the culture of his age
- It.8 Italian literature, thought, and culture, 1500–1650
- It.9 Text and image
- It.10 The language of Italy
- Pg.4 Lusophone culture, history and politics
- Sl.2 The history and culture of Early Rus
- Sl.4 Russian culture from the Golden Age to the Silver Age
- Sl.5 Russian and Soviet culture from 1900
- Sl.7 Soviet and Russian cinema
- Sl.8 The history of the Russian language
- Sl.10 Studies in twentieth-century Ukrainian literature and film
- Sl.12 Socialist Russia 1917–1991
- Sl.14 Russian culture from 1895 to the death of Stalin

Linguistics Tripos

(*Statutes and Ordinances*, p. 385)

With effect from 1 October 2023

The General Board, on the recommendation of the Faculty Board of Modern and Medieval Languages and Linguistics, has approved the amendment of the regulations for the Linguistics Tripos to update the paper details, as follows:

Regulation 12.

SECTION A

By amending the title of Paper 3 to 'Language, brains and machines', retaining the borrowing information in brackets.

By amending the title of Paper 4 to 'Linguistic variation and change', retaining the borrowing information in brackets.

SECTION C

By adding a footnote against Papers 11 and 12 to read 'This paper will be suspended in 2023–24 and in each alternate year thereafter until further notice.'

By adding a footnote against Papers 13 and 14 to read 'This paper will be suspended in 2024–25 and in each alternate year thereafter until further notice.'

By amending the title of Paper 17 to 'Language typology and cognition', retaining the borrowing information in brackets.

SECTION D

By adding a new Paper 36 to the Schedule as follows:

Paper 36. Chinese linguistics (Paper C.19 of the Asian and Middle Eastern Studies Tripos)

By adding a footnote against Papers 35 and 36 to read 'This paper is available in certain years, depending on the schedule of the Asian and Middle Eastern Studies Tripos.'

And by adding a footnote against Paper 22 to read 'This paper is suspended in 2023–24 and 2024–25.'

Modern and Medieval Languages Tripos

(*Statutes and Ordinances*, p. 397)

With effect from 1 October 2023

The General Board, on the recommendation of the Faculty Board of Modern and Medieval Languages and Linguistics, has approved the amendment of the regulations for the Modern and Medieval Languages Tripos to update the paper details and clarify the process for securing exemption from oral examinations, as follows:

Regulation 26.

By removing Regulation 26 in its entirety, renumbering the subsequent regulations and updating affected cross-references.

SCHEDULE A

By amending the descriptor for Paper C1 from ‘Two hours’ to ‘Three hours’.

SCHEDULE B

By adding a footnote against the following papers to note that the examination in Part II will consist of a written examination of three hours’ duration and an essay of no more than 1,800 words:

- Fr.7 Topics in medieval studies to be specified by the Faculty Board from time to time
- Fr.8 Wondrous forms in the age of Montaigne
- Fr.9 Reason, experience and authority: French literature, thought, and history, 1594–1700
- Fr.10 Enlightenment and its limits
- Fr.11 Power and desire in nineteenth-century French culture
- Fr.12 Ethics and experience: Literature, thought, and visual culture of the French-speaking world (1900 to the present)
- Fr.13 The French language: Variation and change
- Fr.14 A special topic in French studies (A) to be specified by the Faculty Board from time to time
- Fr.15 A special topic in French studies (B) to be specified by the Faculty Board from time to time
- Fr.16 A special topic in French studies (C) to be specified by the Faculty Board from time to time
- Ge.9 The making of German culture
- Ge.11 The modern German historical imagination
- Ge.12 Revolutions in German literature, thought and history from 1830 to 1945
- Ge.13 Memory and identity in German-speaking Europe since 1945
- Il.1 Ibero-American cinema
- It.6 Modern Italian culture
- It.7 Dante and the culture of his age
- It.8 Italian literature, thought, and culture, 1500–1650
- It.9 Text and image
- It.10 The language of Italy
- Pg.4 Lusophone culture, history and politics
- Sl.2 The history and culture of Early Rus
- Sl.4 Russian culture from the Golden Age to the Silver Age
- Sl.5 Russian and Soviet culture from 1900
- Sl.7 Soviet and Russian cinema
- Sl.8 The history of the Russian language
- Sl.10 Studies in twentieth-century Ukrainian literature and film
- Sl.12 Socialist Russia 1917–1991
- Sl.14 Russian culture from 1895 to the death of Stalin
- Sl.15 Topics in Slavonic studies: Cultural histories of the present
- Sp.7 Spanish and Latin-American early modern literature and culture
- Sp.9 Modern literature and culture in Spain
- Sp. 10 Modern Catalan language and culture
- Sp.11 The Ibero-Romance languages
- Sp.12 Latin-American culture
- Sp.13 Contemporary Latin-American culture
- Sp.14 Frontiers: Medieval Spanish literature and culture
- CS.1 The Romance languages
- CS.2 The Germanic languages
- CS.3 The Slavonic languages
- CS.4 A special subject in comparative literature (i)
- CS.5 The body
- CS.7 Cinema and the political

By adding a footnote to suspend Paper Ge.8 in 2023–24 and 2024–25 but make it available to be offered by optional dissertation.

By adding a footnote to suspend Papers Ge.10 and Sl.6 in 2023–24 but make them available by optional dissertation.

By adding a footnote to suspend Papers Li.11 and Li.12 in 2023–24 and each alternate year thereafter until further notice.

By adding a footnote to suspend Papers Li.13 and Li.14 in 2024–25 and each alternate year thereafter until further notice.

By adding a footnote against Paper Li.35 to read ‘This paper is available in certain years, depending on the schedule of the Asian and Middle Eastern Studies Tripos.’

By amending the footnote against Papers CS.4, CS.5 and CS.7 to read ‘No Part II candidate may offer more than one of Papers CS.4, CS.5 or CS.7.’

By amending the title of Paper Ge.14 to ‘A special topic in German studies to be specified by the Faculty Board from time to time’ and adding a footnote to suspend it in 2023–24 and not make it available to be offered by optional dissertation.

By amending the title of Paper Sl.3 to ‘The making of Ukraine: History and culture of early modernity’.

By amending the title of Paper Sl.11 to ‘Topics in nineteenth-century Slavonic literature and culture’.

By amending the title of Paper Sp.10 to ‘Modern Catalan language and culture’.

By amending the title of Paper Li.3 to ‘Language, brains and machines’.

By amending the title of Paper Li.4 to ‘Linguistic variation and change’.

By amending the title of Paper Li.17 to ‘Language typology and cognition’.

SCHEDULE IB

By adding a dagger to Paper CS.6 to make it available by Long Essay.

SCHEDULE II

By adding a footnote to suspend Paper Ge.8 in 2023–24 and 2024–25 but make it available to be offered by optional dissertation.

By adding a footnote to suspend Papers Ge.10 and Sl.6 in 2023–24 but make them available by optional dissertation.

By adding a footnote to suspend Papers Li.11 and Li.12 in 2023–24 and each alternate year thereafter until further notice.

By adding a footnote to suspend Papers Li.13 and Li.14 in 2024–25 and each alternate year thereafter until further notice.

By amending the footnote to Papers CS.4, CS.5 and CS.7 to read ‘No candidate may offer more than one of Papers CS.4, CS.5 and CS.7.’

SCHEDULE C

By amending the paper information related to Parts IA and IB of the Classical Tripos to read as follows:

- GL 11. Passages for translation from Greek authors (Paper A1 of Part IB of the Classical Tripos).
- GL 12A. Alternative passages for translation from Greek authors (Option A) (Paper A2 of Part IB of the Classical Tripos).
- GL 12B. Alternative passages for translation from Greek authors (Option B) (Paper A3 of Part IB of the Classical Tripos).
- GL 13. Passages for translation from Latin authors (Paper B1 of Part IB of the Classical Tripos).
- GL 15. Greek literature (two papers chosen from Schedule C of the Classical Tripos). (Three hours and fifteen minutes, to include fifteen minutes’ reading time).
- GL 16. Latin literature (two papers chosen from Schedule D of the Classical Tripos). (Three hours and fifteen minutes, to include fifteen minutes’ reading time).
- GL 17. Greek and Roman history (two history papers chosen from Schedules E and F of Part IB of the Classical Tripos).
- GL 18. Greek and Roman philosophy (two philosophy papers chosen from Schedules E and F of Part IB of the Classical Tripos).
- GL 19. Greek and Roman art and archaeology (two art and archaeology papers chosen from Schedules E and F of Part IB of the Classical Tripos).
- GL 20. Greek and Latin philology and linguistics (two philology and linguistics papers chosen from Schedules E and F of Part IB of the Classical Tripos).
- GL 21. Translation from English into Greek prose and verse (Paper 11 of Part IB of the Classical Tripos).
- GL 22. Translation from English into Latin prose and verse (Paper 12 of Part IB of the Classical Tripos).

SCHEDULE D

By adding the following papers relating to Part II of the Classical Tripos to the Schedule:

- Paper D2. Beyond Classical art
- Paper E1. Elements of comparative linguistics

Development Studies for the M.Phil. Degree

(Statutes and Ordinances, p. 523)

With effect from 1 October 2023

The General Board, on the recommendation of the Faculty Board of Human, Social and Political Science, has approved the amendment of the regulations for the examination in Development Studies for the degree of Master of Philosophy by advanced study, replacing the current regulations in their entirety with the following:

DEVELOPMENT STUDIES

1. The scheme of examination for the one-year course of study in Development Studies for the degree of Master of Philosophy shall consist of:
 - (a) one written essay, of not more than 5,000 words in length, selected from a list of essay titles published by the Degree Committee for the Department of Politics and International Studies at the start of Michaelmas Term, and which falls within the field of study of the core paper;
 - (b) one written essay, of not more than 5,000 words in length, selected from a list of essay titles published by the Degree Committee at the start of Lent Term, and which falls within the fields of study of one of the candidate's two optional papers;
 - (c) a dissertation of not less than 15,000 and not more than 20,000 words in length, including tables, footnotes and appendices but excluding bibliography, on a subject approved by the Degree Committee.
2. The Degree Committee shall publish the list of optional papers available for study not later than the end of the Easter Term of the academic year preceding that in which the examination is to be held. The Degree Committee shall have power to give notice of additional subjects not later than the end of the Michaelmas Term.
3. At the discretion of the Examiners, the examination may include an oral examination on the work submitted by the candidate under Regulation 1, and on the general field of knowledge within which it falls.

Translational Biomedical Research for the M.Phil. Degree

(Statutes and Ordinances, p. 547)

With effect from 1 October 2024

The General Board, on the recommendation of the Faculty Board of Clinical Medicine, has approved the suspension of the examination in Translational Biomedical Research for the degree of Master of Philosophy by advanced study for a further year until the 2025–26 academic year. A footnote noting the suspension will be added to the Special Regulations for the examination.

Cancer Biology for the M.Res. Degree

(Statutes and Ordinances, p. 550)

With effect from 1 October 2023

The General Board, on the recommendation of the Faculty Board of Clinical Medicine, has approved the amendment of the regulations for the examination in Cancer Biology for the degree of Master of Research to clarify the requirements of the examination. The regulations now read as follows:

CANCER BIOLOGY

The scheme of examination for the one-year full-time or two-year part-time course of study in Cancer Biology for the degree of Master of Research shall consist of the following:

- (a) a portfolio of written work, of not more than 20,000 words in total length (excluding tables, footnotes, bibliography and appendices), which shall comprise two reports and a doctoral research proposal, on a theme and of a form approved by the Degree Committee for the Faculties of Clinical Medicine and Veterinary Medicine;
- (b) an oral examination on the doctoral proposal submitted by the candidate and on the general field of knowledge within which it falls.

Genomic Medicine for the M.Res. Degree

With effect from 1 October 2023

The General Board, on the recommendation of the Faculty Board of Clinical Medicine, has approved Genomic Medicine as a subject for examination for the degree of Master of Research with effect from 1 October 2023. Special regulations for the examination have been approved as follows:

GENOMIC MEDICINE

The scheme of examination for the one-year course of study in Genomic Medicine for the degree of Master of Research shall consist of the following:

- (a) three modules announced by the Degree Committee for the Faculties of Clinical Medicine and Veterinary Medicine not later than the end of the Easter Term before the start of the course. Each module shall be examined by assignments of between 2,500 and 3,500 words in length, or by assignments deemed their equivalent by the Degree Committee;
- (b) a dissertation of not more than 30,000 words in length (excluding tables, footnotes, bibliography, and appendices), and of a form approved and published by the Degree Committee each year in the Easter Term before the start of the course;
- (c) an oral examination on the work submitted by the candidate and on the general field of knowledge within which such work falls.

NOTICES BY FACULTY BOARDS, ETC.

Engineering Tripos, Parts IIA and IIB, 2023–24: Modules and sets

The Faculty Board of Engineering gives notice that the modules prescribed for examination in 2023–24, and the mode of examination for each module, will be as listed below.

Candidates must offer ten modules for examination. Candidates may offer only one module from any one of the sets. Students must take at least one, but not more than two, modules from Group E ‘Management and Manufacturing’. Candidates are advised to take note of the conditions of exemption which are set by the professional engineering institutions that accredit the course: <http://teaching.eng.cam.ac.uk/content/accreditation-meng#coe>.

PART IIA MODULES

For all modules below the mode of assessment is *examination only*.

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

Group D: Civil, structural and environmental engineering

IAM1	3D1	Geotechnical engineering I
IAM1	3D2	Geotechnical engineering II
IAM2	3D3	Structural materials and design
IAM2	3D4	Structural analysis and stability
IAM10	3D5	Water engineering
IAM4	3D7	Finite element methods
IAM7	3D8	Geo-environmental engineering

Group E: Management and manufacturing

IAM9	3E1	Business economics
IAM9	3E2	Marketing
IAM8	3E3	Modelling risk
IAM9	3E6	Organisational behaviour
IAM8	3E10	Operations management for engineers
IAM8	3E11	Environmental sustainability and business

Group F: Information engineering

IAM4	3F1	Signals and systems
IAM5	3F2	Systems and control
IAM1	3F3	Statistical signal processing
IAM6	3F4	Data transmission
IAM5	3F7	Information theory and coding
IAM4	3F8	Inference

Group G: Bioengineering

IAM7	3G1	Molecular bioengineering I
IAM3	3G2	Mathematical physiology
IAM2	3G3	Introduction to neuroscience
IAM1	3G4	Medical imaging and 3D computer graphics
IAM8	3G5	Biomaterials

Group M: Multidisciplinary modules

IAM10	3M1	Mathematical methods
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Group S: Modules shared with Part IIb

IAM7	4C4	Design methods
IAM7	4D16	Construction management
IAM9	4M12	Partial differential equations and variational methods
IAM9	4M16	Nuclear power engineering

PART IIa SETS

For all modules below the mode of assessment is *examination only*.

Michaelmas Term 2023**Set: IIAM1**

Units	3A3	Fluid mechanics II
	3D1	Geotechnical engineering I
	3F3	Statistical signal processing

Set: IIAM2

Units:	3B3	Switch-mode electronics
	3D3	Structural materials and design

Set: IIAM3

Units:	3B1	Radio frequency electronics
	3C8	Machine design

Set: IIAM4

Units:	3C7	Mechanics of solids
	3F1	Signals and systems

Set: IIAM5

Units:	3C1	Materials processing and design
	3F7	Information theory and coding

Set:	IIAM6	
Unit:	3C6	Vibration
<hr/>		
Set:	IIAM7	
Units:	3A5	Thermodynamics and power generation
	3G1	Molecular bioengineering I
	4D16	Construction management
	4C4	Design methods
<hr/>		
Set:	IIAM8	
Units:	3A1	Fluid mechanics I
	3B5	Semiconductor engineering
	3G5	Biomaterials
<hr/>		
Set:	IIAM9 (PM lectures)	
Units:	3E6	Organisational behaviour
	3E1	Business economics
	3E2	Marketing
<hr/>		
Set:	IIAM10	
Unit:	3D5	Water engineering

Lent Term 2024

Set:	IIAL1	
Units:	3A3	Fluid mechanics II
	3D2	Geotechnical engineering II
	3G4	Medical imaging and 3D computer graphics
<hr/>		
Set:	IIAL2	
Units:	3B4	Electric drive systems
	3D4	Structural analysis and stability
	3G3	Introduction to neuroscience
<hr/>		
Set:	IIAL3	
Units:	3A6	Heat and mass transfer
	3B2	Integrated digital electronics
	3G2	Mathematical physiology
<hr/>		
Set:	IIAL4	
Units:	3D7	Finite element methods
	3F8	Inference
<hr/>		
Set:	IIAL5	
Units:	3C9	Fracture mechanics of materials and structures
	3F2	Systems and control
<hr/>		
Set:	IIAL6	
Units:	3C5	Dynamics
	3F4	Data transmission
<hr/>		
Set:	IIAL7	
Units:	3A1	Fluid mechanics I
	3B6	Photonic technology
	3D8	Environmental geotechnics
<hr/>		
Set:	IIAL8 (PM lectures)	
Units:	3E3	Modelling risk
	3E10	Operations management for engineers
	3E11	Environmental sustainability and business
<hr/>		
Set:	IIAL9	
Units:	4M12	Partial differential equations and variational methods
	4M16	Nuclear Power Engineering
<hr/>		
Set:	IIAL10	
Units:	3M1	Mathematics methods

PART IIB MODULES

Conditions for candidates: candidates must offer eight modules for examination; normally candidates may offer only one module from any set; in addition, candidates may take not more than three from the following: 4E modules, 4I1, 4M1–3, 4M23 and 4D16 (when running); no candidate who offered any module in Part IIA may again offer the same module in Part IIB.

Key: c = coursework; p = examination only; p+c = coursework and examination.

Set	Unit	Title	Mode
Group A: Energy, fluid mechanics and turbomachinery			
IIBM1	4A2	Computational fluid dynamics	c
IIBM4	4A3	Turbomachinery I	p+c
IIBM6	4A4	Aircraft stability and control	c
IIBM8	4A7	Aircraft aerodynamics and design	c
IIBM7	4A9	Molecular thermodynamics	p
IIBL4	4A10	Flow instability	p
IIBL3	4A12	Turbulence and vortex dynamics	p
IIBL5	4A13	Combustion and engines	p
IIBL11	4A15	Acoustics	p
Group B: Electrical engineering			
IIBM6	4B2	Power microelectronics	p
IIBM11	4B5	Quantum and nano-technologies	p
IIBM5	4B11	Photonic systems	p
IIBL1	4B13	Electronic sensors and instrumentation	p
IIBM2	4B19	Renewable electrical power	p
IIBL2	4B23	Optical fibre communication	p+c
IIBL4	4B24	Radio frequency systems	p+c
IIBL7	4B25	Embedded systems for the internet of things	c
IIBL8	4B27	Internet of everything	c
Group C: Mechanics, materials and design			
IIBM3	4C2	Designing with composites	p+c
IIBM8	4C3	Advanced functional materials and devices	p
IIBM2	4C4	Design methods	p
IIBL4	4C5	Design case studies	c
IIBM4	4C6	Advanced linear vibrations	p+c
IIBM5	4C7	Random and non-linear vibrations	p+c
IIBL8	4C8	Vehicle dynamics	p+c
IIBL7	4C9	Continuum mechanics	p
IIBL2	4C11	Data-driven and learning-based methods in mechanics and materials	c
Group D: Civil, structural and environmental engineering			
IIBL3	4D2	Advanced structural design	c
IIBL11	4D4	Construction engineering	c
IIBM8	4D5	Deep foundations and underground construction	p
IIBL2	4D6	Dynamics in civil engineering	p+c
IIBM4	4D7	Concrete and prestressed concrete	p+c
IIBL5	4D9	Offshore geotechnical engineering	p
IIBM3	4D10	Structural steelwork	p+c
IIBM12	4D13	Architectural engineering	c
IIBM2	4D16	Construction management	p
Group E: Management and manufacturing			
IIBM9	4E1	Innovation and strategic management of intellectual property	c
IIBM9	4E3	Business innovation in a digital age	c
IIBL9	4E5	International business	c
IIBM9	4E6	Accounting and finance	p
IIBL12	4E11	Strategic management	c
IIBL9	4E12	Project management	c

Group F: Information engineering

IIBM5	4F1	Control system design	p+c
IIBL7	4F2	Robust and non-linear control	c
IIBL11	4F3	An optimisation-based approach to control	p
IIBL6	4F5	Advanced information theory and coding	p
IIBL2	4F8	Image processing and image coding	p
IIBM6	4F10	Deep learning and structured data	p
IIBM2	4F12	Computer vision	p
IIBM1	4F13	Probabilistic machine learning	c
IIBL5	4F14	Computer systems	p+c

Group G: Bioengineering

IIBM7	4G1	Mathematical biology of the cell	c
IIBL4	4G3	Computational neuroscience	c
IIBL8	4G5	Materials and molecules: Modelling, simulation and machine learning	c
IIBL5	4G6	Cellular and molecular biomechanics	p
IIBM4	4G7	Control and computation in living systems	p+c
IIBL11	4G9	Biomedical engineering	c
IIBM6	4G10	Brain machine interfaces	p

Group I: Imported modules

IIBCV	4I1	Strategic valuation (TPE25)	c
IIBL8	4I8	Medical physics	p
IIBM5	4I10	Nuclear reactor engineering	p
IIBL8	4I11	Advanced fission and fusion systems	c
IIBM3	4I14	Biosensors and bioelectronics	c

Group M: Multidisciplinary modules

IIBL10	4M1	French	c
IIBM10	4M3	Spanish	c
IIBL1	4M12	Partial differential equations and variational methods	p
IIBL1	4M16	Nuclear power engineering	p
IIBM11	4M17	Practical optimisation	c
IIBM1	4M19	Advanced building physics	c
IIBL7	4M21	Software engineering and design	p
IIBM11	4M22	Climate change mitigation	c
IIBL6	4M23	Electricity and environment (TPE22)	c
IIBM8	4M24	Computational statistics and machine learning	p+c
IIBL3	4M25	Advanced robotics	c
IIBL3	4M26	Algorithms and data structures	p

Group S: Modules shared with Part IIa

IIBM2	4C4	Design methods	
IIBM2	4D16	Construction management	
IIBL1	4M12	Partial differential equations and variational methods	
IIBL1	4M16	Nuclear power engineering	

PART IIB SETS

Key: c = coursework; p = examination only; p+c = coursework and examination.

Michaelmas Term 2023

Set:	IIBM1		
Units:	4A2	Computational fluid dynamics	c
	4F13	Probabilistic machine learning	c
	4M19	Advanced building physics	c
Set:	IIBM2		
Units:	4B19	Renewable electrical power	p
	4C4	Design methods	p
	4D16	Construction management	p
	4F12	Computer vision	p

Set:	IIBM3		
Units:	4C2	Designing with composites	p+c
	4D10	Structural steelwork	p+c
	4I14	Biosensors and bioelectronics	c
Set:	IIBM4		
Units:	4A3	Turbomachinery I	p+c
	4C6	Advanced linear vibrations	p+c
	4D7	Concrete and prestressed concrete	p+c
	4G7	Control and computation in living systems	p+c
Set:	IIBM5		
Units:	4B11	Photonic systems	p
	4C7	Random and non-linear vibrations	p+c
	4F1	Control system design	p+c
	4I10	Nuclear reactor engineering	p
Set:	IIBM6		
Unit:	4A4	Aircraft stability and control	c
	4B2	Power microelectronics	p
	4F10	Deep learning and structured data	p
	4G10	Brain machine interfaces	p
Set:	IIBM7		
Units:	4A9	Molecular thermodynamics	p
	4G1	Mathematical biology of the cell	c
Set:	IIBM8		
Units:	4A7	Aircraft aerodynamics and design	c
	4C3	Advanced functional materials and devices	p
	4D5	Deep foundations and underground construction	p
	4M24	Computational statistics and machine learning	p+c
Set:	IIBM9		
Units:	4E1	Innovation and strategic management of intellectual property	c
	4E3	Business innovation in a digital age	c
	4E6	Accounting and finance	p
Set:	IIBM10		
Unit:	4M3	Spanish	c
Set:	IIBM11		
Units:	4B5	Quantum and nano technologies	p
	4M17	Practical optimisation	c
	4M22	Climate change mitigation	c
Set:	IIBM12		
Unit:	4D13	Architectural engineering	c

Christmas Vacation 2023

Set:	IIBCV		
Unit:	4I1	Strategic valuation (TPE25)	c

Lent Term 2024

Set:	IIBL1		
Units:	4B13	Electronic sensors and instrumentation	p
	4M12	Partial differential equations and variational methods	p
	4M16	Nuclear power engineering	p
Set:	IIBL2		
Units:	4C11	Data-driven and learning-based methods in mechanics and materials	c
	4D6	Dynamics in civil engineering	p+c
	4F8	Image processing and image coding	p+c
	4B23	Optical fibre communication	p+c

Set:	IIBL3		
Units:	4A12	Turbulence and vortex dynamics	p
	4D2	Advanced structural design	c
	4M25	Advanced robotics	c
	4M26	Algorithms and data structures	p
Set:	IIBL4		
Units:	4A10	Flow instability	p+c
	4B24	Radio frequency systems	p+c
	4C5	Design case studies	c
	4G3	Computational neuroscience	c
Set:	IIBL5		
Units:	4A13	Combustion and engines	p
	4D9	Offshore geotechnical engineering	p
	4F14	Computer systems	p+c
	4G6	Cellular and molecular biomechanics	p
Set:	IIBL6		
Units:	4F5	Advanced information theory and coding	p
	4M23	Electricity and environment (TPE22)	c
Set:	IIBL7		
Units:	4B25	Embedded systems for the internet of things	c
	4C9	Continuum mechanics	p
	4F2	Robust and non-linear control	c
	4M21	Software engineering and design	p
Set:	IIBL8		
Units:	4C8	Vehicle dynamics	p+c
	4G5	Materials and molecules: Modelling, simulation and machine learning	c
	4I8	Medical physics	p
	4B27	Internet of everything	c
	4I11	Advanced fission and fusion systems	c
Set:	IIBL9		
Units:	4E5	International business	c
	4E12	Project management	c
Set:	IIBL10		
Unit:	4M1	French	c
Set:	IIBL11		
Units:	4A15	Acoustics	p
	4D4	Construction engineering	c
	4F3	An optimisation-based approach to control	p
	4G9	Biomedical engineering	c
Set:	IIBL12		
Units:	4E11	Strategic management	c

Management Studies Tripos, 2023–24

The Faculty Board of Business and Management gives notice that in the academic year 2023–24 the subjects for examination for the Management Studies Tripos will be as listed below. The method of examination is shown for each subject.

8. Scheme of examination (compulsory subjects)

M1 Organisational behaviour and marketing:

MS1 Organisational behaviour (coursework – one individual essay of 2,000 words)

MS6 Marketing (coursework – one individual essay of 2,000 words)

M2 Quantitative methods and operations management:

- MS2 Quantitative methods (in-person, closed-book University examination of 90 minutes' duration, within the three-hour M2 paper shared with MS5)
- MS5 Operations Management (in-person, closed-book University examination of 90 minutes' duration, within the three-hour M2 paper shared with MS2)

M3 Economics with accounting and finance:

- MS3 Economics of firms and markets (in-person, closed-book University examination of 90 minutes' duration, within the three-hour M3 paper shared with MS4)
- MS4 Accounting and finance (in-person, closed-book University examination of 90 minutes' duration, within the three-hour M3 paper examination shared with MS3)

9. Easter Term group consultancy project (PR)

- Project (Group-authored report of 6,000 words [70%]; presentation with PowerPoint slide deck [30%])
Deliverable to client: group presentation and summary

10. Coursework (CW – elective subjects – all students must choose two)

- MSE7 The future of work (individual take-home essay [80%]; film response essay [15%]; class participation [5%])
- MSE8 Environment and sustainability (individual take-home essay [60%]; individual presentation [40%])
- MSE9 Macroeconomics (individual take-home essay of 2,500 words [100%])
N.B. this elective is not available to students who have previously studied on the Economics Tripos.
- MSE10 Topics in corporate finance (individual take-home essay [65%]; group presentation [35%])
- MSE11 Business innovation in a digital age (individual take-home essay [100%])
- MSE12 Strategic management (individual take-home essay of 2,500 words [80%]; group case presentation [20%])

10. Coursework (NW – compulsory subject)

- Negotiations workshop (individual assignment [100%])

Master of Accounting, 2023–24: Modules

The Faculty Board of Business and Management gives notice that, in the academic year 2023–24, the subjects for examination for the Executive course for the degree of Master of Accounting will be as listed below. The method of examination is shown for each subject.

OPTION B: EXECUTIVE MASTER OF ACCOUNTING, TWO-YEAR (PART-TIME) COURSE**2023–25 Class***(a) Compulsory modules***Michaelmas Term 2023**

EMACC1	Global financial reporting	Group assignment (40%); individual assignment (60%)
EMACC2	Strategic performance management	Individual assignment (40%); University examination (60%)
EMACC3	Audit	Individual assignment (100%)
EMACC4	Probability and statistics	Individual assignment (100%)

Lent Term 2024

EMACC6	Change management and negotiations	Individual assignment (100%)
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Easter Term 2024

EMACC5	Critical issues in accounting speaker series	Group assignment (100%)
EMACC7	Sustainability	University examination (100%)
EMACC8	Data visualisation	Individual assignment (100%)
EMACC9	Predictive analytics	Individual assignment (100%)

(b) Elective modules: None.

(c) Project work: None.

2022–24 Class*(a) Compulsory modules***Michaelmas Term 2023**

MACC7	Sustainability	Individual assignment (60%); University examination (40%)
MACC11	Analytics in organisations	Individual assignment (60%); University examination (40%)
MACC12	Detecting earnings management	Group assignment (100%)

Lent Term 2024

MACC13	Analytics for managerial accounting and operations management	Individual assignment (100%)
MACC15	Current issues in financial reporting, governance and ethics	Individual assignment (100%)
MACC10	Interpersonal dynamics	Individual assignment (100%)

Easter Term 2024

MACC14	Critical issues in accounting speaker series	Group assignment (100%)
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*(b) Elective modules:***Michaelmas Term 2023:** None.**Lent Term 2024:** None.**Easter Term 2024:**

MACC21	Elective equity valuation	Group assignment (100%)
MACC22	Elective leadership in organisations	Individual assignment (100%)
MACC23	Elective mergers and acquisitions	Group assignment (100%)
MACC24	Elective introduction to accounting research	Individual assignment (100%)
MACC26	Elective tax for finance professionals	Individual assignment (100%)

*(c) Project work***Michaelmas Term 2023:** None.**Lent Term 2024:**

MACC16	Team consulting project	Group assignment
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Easter Term 2024: None.**Examination for the degree of Doctor of Business, 2023–24**

The Degree Committee for the Faculty of Business and Management gives notice that, in the academic year 2023–24, the subjects for examination in the degree of Doctor of Business will be as listed below, in line with Regulation 4. The method of examination is shown for each subject.

ISO5	Qualitative research methods [assessed by two 1,000 word-essays (20% each), plus one 3,000-word essay (60%)]
SMO9	Organisational research methods Part A [assessed by 4,000-word essay (80%), plus reaction papers (20%)]
ISO4	Statistical concepts for management researchers [assessed by 1,000-word assignment (80%), plus half-hour seminar presentation (20%)]
SMO9	Organisational research methods Part B [assessed by 4,000-word essay (80%), plus reaction papers (20%)]
BD1	Specialised reading course [assessed by 5,000-word report (100%)]

Master of Finance, 2023–24

The Faculty Board of Business and Management gives notice that, in the academic year 2023–24, the subjects for examination for the degree of Master of Finance will be as listed below. The method of examination is shown for each subject.

Michaelmas Term 2023

(a) Written papers

MFIN29	Introduction to derivatives	2-hour in-class test (100%)
MFIN10	Economic foundations of finance	Group case study of 3,000 words (27%); 1.5-hour written examination (65%); 4 x Lab session quizzes (8%)
MFIN9	Principles of finance	2.5-hour written examination (100%)
MFIN7	Financial reporting and analysis	2-hour in-class examination (100%)
MFIN6	Financial institutions and markets	1.5 hour written examination (100%)

(b) Coursework

MFIN5	Management lecture series	Seminar, assessed by attendance
MFIN22	Management, leadership and ethics	Seminar, assessed by attendance
MFIN23	City speaker series	Seminar, assessed by attendance

Lent Term 2024

(a) Written papers

MFIN39	Fundamentals of credit	2-hour in-class examination (40%); group case study (60%)
MFIN3	Econometrics	2-hour online mid-term test (20%); 3-hour in-class test (80%)

(b) Projects

MFIN24	Equity research project	Group project assessed by group presentation (50%) and report of no more than 2,500 words (50%)
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(c) Coursework

MFIN5	Management lecture series	Seminar, assessed by attendance
MFIN22	Management, leadership and ethics	Seminar, assessed by attendance
MFIN23	City speaker series	Seminar, assessed by attendance

Easter Term 2024

(a) Projects

MFIN26	Group consulting project	1-hour group presentation (100%)
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(b) Coursework

MFIN5	Management lecture series	Seminar, assessed by attendance
MFIN23	City speaker series	Seminar, assessed by attendance

Finance for the M.Phil. Degree, 2023–24

The Degree Committee for the Faculty of Business and Management gives notice that, in the academic year 2023–24, the subjects for examination in Finance for the degree of Master of Philosophy will be as listed below. The method of examination is shown for each subject.

Group 1 (six compulsory subjects)

(1)	MF5A	Corporate finance [one three-hour in-class test]
(2)	MF6A	Asset pricing [one 2,500-word essay]
(3)	<i>Either</i>	
	MF5B	Corporate finance II [one three-hour in-class test (45%); one 2,000-word referee report (25%); one presentation (20%); class participation (10%)]
	<i>or</i>	
	MF6B	Asset pricing II [one 2,500-word essay]

- (4) **Either**
SMO6 Fundamentals of competitive markets [one two-hour in-class test]
or
R100 Microeconomics [one two-hour written examination]
-
- Either**
(5) E300 Econometric methods [one three-hour written examination]; *and either*
(6) R301a Advanced econometrics II: Time series [one two-hour written examination]; *or*
(7) R301b Advanced econometrics II: Cross-section and panel data [one two-hour written examination]
- Or**
(5) MF2 Econometrics I [one three-hour in-class test (80%); one online quiz (20%); *and*
(6) MF2A Econometrics II [one three-hour in-class test (80%); one online quiz (20%)]

Group 2 (three optional subjects)

- MF1 Topics in accounting [one group-based assignment write-up of up to 2,000 words excluding tables (70%); a presentation (30%)]
-
- MF10 How to do finance [two written referee reports (83%); Learning diary (17%)]
-
- S140 Behavioural economics [one two-hour written exam (to be confirmed by Economics)]
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- S150 Economics of networks [one two-hour written exam (to be confirmed by Economics)]
-
- S170 Industrial organisation [one two-hour written exam (to be confirmed by Economics)]
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- S500 Development economics [one take-home essay of 4,000 words (to be confirmed by Economics)]
-
- MFin35 Further econometrics [one three-hour in-class test (to be confirmed by M.Fin.)]
-
- 202 Stochastic calculus and application [three-hour examination (to be confirmed by Mathematics)]
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- 205 Modern statistical methods [three-hour examination (to be confirmed by Mathematics)]
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- 211 Advanced financial models [three-hour examination (to be confirmed by Mathematics)]
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- 201 Advanced probability [three-hour examination (to be confirmed by Mathematics)]
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- 341 Numerical solution of differential equations [three-hour examination (to be confirmed by Mathematics)]

Management for the M.Phil. Degree, 2023–24

The Degree Committee for the Faculty of Business and Management gives notice that, in the academic year 2023–24, the subjects for examination in Management for the degree of Master of Philosophy will be as listed below. The method of examination is shown for each subject.

Group 1 (compulsory subjects)

MM1	Business analytics	two-hour in-person examination with additional 10 minutes of reading time (100%)
MM2	Marketing	10-minute group project presentation (50%); 90-minute online open book examination (50%)
MM3	Business economics	two-hour in-person examination with additional 10 minutes of reading time (100%)
MM4	Strategy	two-hour in-person examination with additional 10 minutes of reading time (100%)
MM5	Organisational analysis and behaviour	two-hour in-person examination with additional 10 minutes of reading time (80%), 10-minute group presentation with five-minute Q&A (20%)
MM6	Finance	two-hour in-person examination with additional 10 minutes of reading time (100%)
MM7	Accounting	two-hour in-person examination with additional 10 minutes of reading time (100%)
MM8	Operations management	two-hour in-person examination with additional 15 minutes of reading time (100%)
MM9	Management consultancy projects	25-minute group presentation with 5,000-word report (75%); 1,500-word essay (25%)

Group 2 (optional papers)

MME20	Business innovation in a digital age	Individual assignment (70%); group presentation (30%)
MME21	Business and social impact	2,000-word individual assignment (50%); 10-minute group presentation with five-minute Q&A (50%)
MSE7	The future of work	Individual take-home essay (80%); film response essay (15%); class participation (5%)
MSE9	Macroeconomics	Individual take-home essay of 2,500 words (100%)
TPE25	Strategic valuation: Uncertainty and real options in system design A project of no more than 4,000 words, comprising computer modelling and associated questions and the preparation of a six-slide PowerPoint presentation (100%)	
TPE20	Managing the innovation process Group case write-up of up to 1,500 words not including references and figures (30%); individual essay of up to 2,000 words not including references and figures (70%)	

Technology Policy for the M.Phil. Degree, 2023–24

The Degree Committee for the Faculty of Business and Management gives notice that, in the academic year 2023–24, the subjects for examination in Technology Policy for the degree of Master of Philosophy will be as listed below. The method of examination is shown for each subject.

Students must take twelve modules in total. These comprise of:

- six core modules
- four electives from the ‘sectorial/skills’ and the ‘enterprise’ streams
- two open electives – these can also be drawn from the ‘sectorial/skills’ or the ‘enterprise’ streams

Students are also required to complete a Final Group Project, double-weighted.

Core modules (compulsory)

TP1	Technology policy: Concepts and frameworks [two-hour end-of-term written in-class test (80%); blog contributions (20%)]
TP2	Economic foundations of technology policy [two-hour end-of-term written in-class test (100%)]
TP3	Seminars in technology policy [10-minute group video presentation with an in-person Q&A (25%); individual essay of up to 3,000 words (75%)]
TP4	Business, government and technology in emerging markets [two-hour end-of-term written in-class test (100%)]
TP5	Policy design and evaluation [two-hour end-of-term written in-class test (100%)]
TP6	European science, technology and innovation policy [3,000-word final essay/policy brief (75%); in-class debate (25%)]
FGP	Final group project [12,000-word written report (70%); PowerPoint presentation (30%) (double weighted)]

Electives*Sectorial and skills stream electives*

TPE23	Negotiation skills [3,000-word essay (100%)]
TPE25	Strategic valuation: Uncertainty and real options in system design [project of no more than 4,000 words, comprising computer modelling and associated questions and the preparation of a six-slide PowerPoint presentation (100%)]
4M23	Electricity and environment [module offered by the Engineering Department – students should contact Engineering for precise details of the requirements]
MF2	Econometrics I [three-hour in-class test (80%); online quiz (20%)]

Enterprise stream electives

TPE20	Managing the innovation process [group case write-up of up to 1,500 words not including references and figures (30%); individual essay of up to 2,000 words not including references and figures (70%)]
TPE21	Circular economy: Entrepreneurial environment and policy implications [2,000-word individual essay (50%); 2,000-word group report (50%)]
TPE24	Competitive strategy in the digital age [2,000-word essay (100%)]

Open stream electives

Technology Policy M.Phil. students are permitted to borrow any of the following modules as an Open stream elective:

From the Innovation, Strategy and Organisation M.Phil. course:

ISO2 Organisations and strategic innovation [3,000-word essay (70%); 30-minute seminar group presentation (30%)]

From the Management M.Phil. course:

MME20 Business innovation in a digital age [individual assignment (70%); group presentation (30%)]

MME21 Business and social impact [2,000-word individual assignment (50%); 10-minute group presentation with five-minute Q&A (50%)]

From Part IIb of the Engineering Tripos (students should contact the Department of Engineering for precise details of the requirements):

4E4 Management of technology

4E5 International business

4E6 Accounting and finance

From the Engineering for Sustainable Development M.Phil. course (students should contact the Department of Engineering for precise details of the requirements):

ESD380 Resilience of infrastructure systems

ESD450 Policy, legislation and government

Management Studies for the M.Res. Degree, 2023–24

The Degree Committee for the Faculty of Business and Management gives notice that, in the academic year 2023–24, the subjects for examination in Management Studies for the degree of Master of Research will be as listed below.

The method of examination is shown for each subject. Students must take at least five modules. Students are also required to write a dissertation of not more than 16,000 words in length, including diagrams and footnotes, but excluding bibliography and appendices on projects approved by the Degree Committee for the Faculty of Business and Management.

Michaelmas Term 2023

MF5A Corporate finance I [three-hour in-class test (100%)]

TP1 Technology policy: Concepts and frameworks (two-hour end-of-term written in-class test [80%]; blog contributions [20%])

SMO6 Fundamentals of competitive markets [two-hour in-class test (100%)]

Lent Term 2024

TP5 Policy design and evaluation [two-hour end-of-term written in-class test (100%)]

4M23 Electricity and environment (module offered by the Engineering Department – students should contact Engineering for precise details of the requirements)

Entrepreneurship for the M.St. Degree, 2023–24

The Degree Committee for the Faculty of Business and Management gives notice that, in the academic year 2023–24, the subjects for examination in Entrepreneurship for the degree of Master of Studies will be as listed below. The method of examination is shown for each subject.

Core courses

Entrepreneurial finance	single assignment of no more than 2,000 words (100%)
Systems thinking	single assignment of no more than 2,000 words (100%)
Organisational behaviour	single assignment of no more than 2,000 words (100%)
Opportunities and business models	group presentation and 1,000-word written assignment (50% for each element)
Marketing for the 21st century	single assignment of no more than 2,000 words (100%)
Strategy	single assignment of no more than 2,000 words (100%)
Negotiation and conflict management	single 2,000-word written assignment (100%)
Research methods	single assignment of no more than 2,000 words (100%)

Elective courses

Students should choose five elective courses from the following list:

Intellectual property for entrepreneurs	single assignment of no more than 2,000 words (100%)
Sustainability and conscious capitalism	single assignment of no more than 2,000 words (100%)
Raising finance	single assignment of no more than 2,000 words (100%)
Assessing and managing external constraints	single assignment of no more than 2,000 words (100%)
Managing growth	single assignment of no more than 2,000 words (100%)
B2B marketing	single assignment of no more than 2,000 words (100%)
Effective experimentation and pivoting	single assignment of no more than 2,000 words (100%)
Management of internal costs	single assignment of no more than 2,000 words (100%)
Leveraging big data: Analysis and management	single assignment of no more than 2,000 words (100%)
Entrepreneurial impact	single assignment of no more than 2,000 words (100%)

OBITUARIES**Obituary Notice**

ALFRED THOMAS (DICK) GROVE, M.A., Emeritus Fellow and former Vice-Master, Senior Tutor, and Director of Studies in Geography of Downing College, member of St Catharine's College, sometime Director of the Centre of African Studies and formerly University Lecturer in the Department of Geography, died on 9 July 2023, aged 99 years.

GRACES**Graces to be submitted to the Regent House at a Congregation on 21 July 2023**

The Council has sanctioned the submission of the following Graces to the Regent House at a Congregation to be held on 21 July 2023:

That the following person be admitted to the degree of Doctor of Medicine by incorporation:

1. MARTIN JAMES BURTON, Master-elect of Sidney Sussex College, Doctor of Medicine of the University of Oxford (1996).

That the following persons be admitted to the degree of Doctor of Philosophy by incorporation:

2. JOHN STUART BENDER, Master-elect of St Catharine's College, Doctor of Philosophy of the University of Oxford (1990).
3. HOLLY CORIANDA CANUTO, Fellow of St Catharine's College, Doctor of Philosophy of the University of Oxford (2003).
4. DAVID ALEXANDER SYME FERGUSSON, Fellow of Magdalene College and Regius Professor of Divinity (1540) in the Faculty of Divinity, Doctor of Philosophy of the University of Oxford (1984).

That the following person be admitted to the degree of Master of Arts by incorporation:

5. MATTHEW RICHARD MARTIN, Fellow of Gonville and Caius College, Master of Arts of the University of Oxford (2012).

That the following persons be admitted to the degree of Master of Arts under the provisions of Statute B II 2:

6. ANDRÉ GONZALEZ CABRERA HONORIO SERRENHO, Fellow of Clare College and University Assistant Professor in the Department of Engineering.
7. GAENOR ELIZABETH CURRY, Administrative Officer in the Finance Division of the University Offices.
8. SEBASTIAN EVES-VAN DEN AKKER, Fellow of King's College.
9. MICHELLE ANNE KEMP, Associate Lecturer in the School of Clinical Medicine.
10. ANDREW WILLIAM MCCASKIE, Professor of Orthopaedic Surgery in the Department of Surgery.
11. PETER JAMES WILLIAMSON, Fellow of Jesus College.

Graces to be submitted to the Regent House at a Congregation on 22 July 2023

The Council has sanctioned the submission of the following Graces to the Regent House at a Congregation to be held on 22 July 2023:

That the following persons be admitted to the degree of Master of Arts under the provisions of Statute B II 2:

1. SARAH CARTHEW, Fellow of Newnham College.
2. MARIKA FILIPPIDOU, Associate Lecturer in the School of Clinical Medicine.
3. IAIN MICHAEL GOODHART, Associate Lecturer in the School of Clinical Medicine.
4. EVGENI SHWAGERAUS, Fellow of Hughes Hall and Professor of Nuclear Energy Systems Engineering (Grade 11) in the Department of Engineering.
5. CÉLINE MARIE VIDAL, Fellow of Fitzwilliam College.

E. M. C. RAMPTON, *Registrar*

END OF THE OFFICIAL PART OF THE 'REPORTER'

REPORT OF DISCUSSION

Tuesday, 11 July 2023

A Discussion was convened by videoconference. Deputy Vice-Chancellor, Dr Michael Rands, *DAR*, was presiding with the Registry's deputy, the Junior Proctor, the Senior Pro-Proctor and one other person attending.

Remarks were made as follows:

Joint Report of the Council and the General Board, dated 28 June 2023, on an updated contribution reward scheme for academic-related staff in Grade 12

(*Reporter*, 6706, 2022–23, p. 780).

Professor G. R. EVANS (Emeritus Professor of Medieval Theology and Intellectual History), read by the Junior Proctor:

Deputy Vice-Chancellor, I hesitate to comment on salary arrangements for academic-related staff, never having been one, but it is rare for such staff to speak in Discussions. I hope that will not be true today.

There has surely been enough trouble about Senior Academic Promotions during the last quarter of a century to encourage very careful thought about gracing this without more thought. Those affected will have a vote if a Grace is put.

The proposals in this Report make a significant distinction between the requirements to be met by academic and academic-related staff, placing an emphasis on the role of 'line-managers', 'to put forward staff for an award'. The argument for this is that it would 'align the scheme more closely with other reward and progression schemes designed for senior managers in most organisations'.

A distinction is drawn between meeting 'standards of excellence' (academics) and performing 'outstandingly in their role' (the academic-related). Where performance management must never be considered for the first category, it is to be fundamental for the second. In order to apply performance-related criteria there is to be 'a fuller set of criteria' including 'recognition of someone's contribution beyond their departmental setting to the whole University, as well as some suggested by the HR Committee'. Perhaps those should be published in full before this Grace is submitted for approval? The details given in the Report seem vague.

The criteria will also 'encourage more vigilance over equality, diversity and inclusion (EDI) considerations' in connection with this scheme', with 'each line manager who manages Grade 12 staff' receiving reports on performance in this area'. Reports from whom? How recorded? How tested? Does Cambridge seriously intend to tie reward to proof of EDI 'performance' for its senior academic-related staff?

To read the detail announced in the 'Bulletin' on the introduction of the new Dignity at Work Policy which came into force on 20 June 2023¹ is to envisage the complications to be expected when 'grievances' enter the Formal Resolution Flowchart, beginning with an approach to the very line manager who will be taking account of the performance of a senior member of the academic-related staff grieved against.

Oxford has had trouble over attempts to introduce EDI considerations into appointment and reward of its staff. In any case I thought worries were now being raised about disproportionate emphasis on EDI perversely distorting results to no-one's benefit? As long ago as 21 September 2021 *Times Higher Education* published concerns about that and the recent Supreme Court ban on race-conscious university admissions in the United States is stirring up a good deal of press comment.

¹ <https://www.hr.admin.cam.ac.uk/new-dignity-work-and-grievance-policies-0>

Report of the Council, dated 28 June 2023, recommending allocations from the Chest for 2023–24

(*Reporter*, 6706, 2022–23, p. 782).

Dr S. J. COWLEY (Faculty of Mathematics and Emmanuel College):

Deputy Vice-Chancellor, I have previously participated in Discussions on Allocations Reports in 2002, 2003, 2007, 2011, 2014, 2016, 2018 and twice in 2020. Allocations Reports are not my favourite bedtime reading, so it was with some reluctance that I sat down to read this Report last night; more so when I realised it was the next instalment of *A Nightmare on Elm Street* (fortunately I did not dream of it).

What one might view as the nightmare is the Chest deficit of £89.5m or £92.8m, depending on how you look at it: say, a round £90m. The issue is whether this is a big number (spoiler: it is, very big).

In 2020 there was a provisional Allocations Report in June followed by a definitive Report in October. I was a member of the Council at the time, and signed Notes of Partial Dissent both times. My concerns were:

- an increase on the maximum proposed deficit of £17m, requested by the Finance Committee in July 2019, to £43m (before a £5m Covid-19 contingency);
- the lack of a clear, transparent planning and resource allocations process for the two/three years leading up to 2020 which, partly because use of the Resource Allocation Model (RAM) had been discontinued and decisions were being made far too late, rewarded bad planning and an inability to keep to an institutional budget;
- that, while it was claimed that 'it has not been the intention to legitimise an operating cost base that has been allowed to grow beyond the funding available to meet it', the process of allocating expenditure for one year based on expenditure from the previous year, *de facto* so did;
- that, while the Schools were on the whole being prudent in expenditure, there were non-School 'institutions [that] had been unable to scale back activity to live within their means', with the result that the University was spending too freely, was not making quick enough progress to reduce the overspend, and was selling the family silver to support structural deficits;
- that the mantra that expenditure on academic matters should be protected, was belied by the fact that savings had been achieved by 'holding academic posts vacant for a period before refilling, or suspending equipment funding to departments'.

A £40m deficit in 2020–21 was comparable to the largest that I was previously aware of (i.e. 2005–06 after adjustment for inflation). A £90m deficit is to my mind shocking.

As noted in this Report, the Chest budget is ‘only 35–40% of the financial academic activity of the Academic University’. However, to a leading order approximation, the ‘Chest’ is the sum that is likely to be there year-on-year, and on which core expenditure can be based. As a rule of thumb, if the Chest is in balance then, when the accounts are drawn up, the University should have a healthy surplus of tens of millions which can then be spent on new initiatives and/or put in a piggy bank for a rainy day (e.g. Covid-19 or a financial crisis). It is noted that the ‘Ten-Year Model [TYM] now indicates an overall deficit of £40m for 2023–24’, as for 2022–23; adding £90m to that results in the aforementioned healthy surplus of tens of millions. The aim should be to balance the Chest budget since, as the Report notes, ‘a failure to deliver a cash surplus from core academic operations leaves the University substantially reliant on Press & Assessment and philanthropy for the capital it needs for investment to remain a world-leading university’.

That the TYM is predicted to remain in deficit until 2027–28, and that the EFT Academic University deficit increases for as long as it is predicted (i.e. until 2024–25), are indications of continued planning failure. There is of course no shortage of initiatives, e.g., the transformation programmes in Finance, HR and Research, the programmes on Reimagining Professional Services, on Reshaping our Estate and on Strategic Procurement and Purchasing, and the Surplus Improvement Fund (SIF); but will these initiatives deliver? As noted in the Report, ‘the scale of the benefit [of SIF] is modest in view of the overall change required to reach a sustainable operating surplus’: this was always going to be the case when too many eggs were put in the SIF basket in 2020–21. Also, EFT will not generate more money, it will just indicate where the money is being spent (or should that be lost). There are many fine words and plans in paragraphs 17–20, but I have heard many of them before, and I am sceptical.

What is needed is a proper planning process. It is claimed that ‘The Chest framework arguably lacks flexibility to accommodate new expenditure linked to opportunities and risks that may arise during the year’, but this was not the case when I was on the RMC and the PRC and when there was a proper planning process. I was surprised to realise that, before EFT was online, the RAM was totally turned off in about 2019 (reputedly to save 0.5 or so of an FTE). The result is that the University has been, to some extent, flying blind. As illustration, I recently learnt that a member of the Council was surprised to discover that the School of Clinical Medicine (SCM) was in deficit according to EFT. Yet the RAM deficit for the SCM in 2018–19 was £16.7m (if one included the ‘Ring-Fenced Institutions’), so what’s new?

In the summer of 2018 the incoming Pro-Vice-Chancellor for Strategy and Planning promised a revised RAM in a year or so; based on experience, I predicted at least 2–3 years. In the Spring of 2020 the then Vice-Chancellor said that EFT was still 2–3 years away (and I was impolitic enough in a Council Meeting to mention that ‘I told him so’). I gather that EFT might not fully arrive until 2027. What the University seems to need urgently is not a load of programmes with three- or four-letter acronyms, but a proper planning process and recognition that, as I said in 2020, ‘unfortunately, the time for difficult choices has arrived’.

In March 2003, an *ad hoc* Finance Working Party published a report¹ because of increasingly large Chest deficits (in those days there was no non-Chest deficit). To quote selectively from the report:

‘The financial problem is chronic, and cannot be allowed to continue, but it is not so severe as to require the University to be damaged as a consequence of financial recovery.’ (at para. 4)

One would hope that the University has not reached the stage where it will be damaged as a consequence of financial recovery.

‘Some of the problems stem from the University’s ‘core plus’ approach to annual budgeting, in which the baseline expenditure from the previous year is rolled forward with the annual addition of ‘New Needs’ but without detailed examination of the spending within the baseline ...’ (at para. 6)

The University has essentially reverted to a ‘core plus’ approach to annual budgeting; that needs to be undone.

‘A Resource Allocation Model (RAM) is not a solution to this or other problems, but it will provide new incentives and new responsibilities which will help promote the culture change necessary to take a unified approach to the University’s finances. The RAM models how income is earned and expenditure incurred and will have to be applied with moderation (that is to say a phased transition from current levels of funding to a new Formula Funding approach).’

Can the University wait until 2027 for EFT to be fully online?

I have three further points that I wish to raise.

- (i) Please can the Tables and Appendices section of the Allocations Report reappear, and in particular the Table on Staff FTE by Organisation and Staff Grouping? These tables were an invaluable resource, with the aforementioned table indicating the significant rise in numbers of Professional Staff compared with Academic Staff over many years. Are those figures now too embarrassing to publish?
- (ii) There are rumours that the maintenance contract for estates is going to cost three times the original budget (the figures I have heard bandied around are £150m instead of £50m). Please could details be provided, with a commentary on how this affects the deficit.
- (iii) In 2017 the Cost of an Undergraduate Education was about £17,000, while the latest figure I have seen is £21,700. Could some indication please be given of the reasons for this significant increase?

¹ *Reporter*, 5918, 2002–03, p. 697.

Professor G. R. EVANS (Emeritus Professor of Medieval Theology and Intellectual History), read by the Senior Pro-Practor:

Deputy Vice-Chancellor, this Report of course concerns only the Academic University's financial position but it includes some discussion of the financial condition of the University as a whole. This will surely be affected by the Government's proposals for a huge expansion of housing to accommodate 'the Silicon Valley of Europe' just announced, flagged up by *The Sunday Times* on 9 July and commented on to the BBC with some indignation by South Cambridgeshire's MP.¹ He had known nothing about it and neither, it says, had the City Council. The Vice-Chancellor, interviewed at length by *The Times* on Saturday about her hopes in her brand new office, made no mention of this.

The Regent House has had Notices and Reports and Discussions over the North West Cambridge development, not all containing good news financially. Nevertheless, it has been kept informed. Will the Council please publish a Notice without delay to inform the Regent House what is now planned, and explain what consultation there has so far been with any persons or bodies within the University?

¹ See <https://www.thetimes.co.uk/article/michael-gove-cambridge-silicon-valley-levelling-up-v27nmnttc> (subscription required) and <https://www.bbc.co.uk/news/uk-england-norfolk-66148602>.

Report of the General Board, dated 28 June 2023, on curatorial and associated staff progression in certain museums

(*Reporter*, 6706, 2022–23, p. 789).

Professor G. R. EVANS (Emeritus Professor of Medieval Theology and Intellectual History), read by the Junior Proctor:

Deputy Vice-Chancellor, discussion of this Report on the same day as the one about academic-related staff suggests that although this proposal affects only 'those holding Grade 9 offices and unestablished posts with curatorial and associated responsibilities' in three museums (numbering 15 posts), it raises a question about the borderline between academic and academic-related staff. A note to this Report says that 'one potential candidate's role is academic-related, but there are grounds for applying for an exemption for this role to be accommodated as well'.

The earlier Report is firm about the distinction between the 'line-managed' academic staff to be rewarded on performance criteria and academics to be rated quite differently. This Report places those it concerns in the Academic Career (Research & Teaching) Pathway, with a new provision to be added to the relevant Special Ordinance so as to waive the requirement of thirty hours' teaching a year for those who would be raised to Grade 10 and hold a newly-established Office.

Two points seem worth making. One is the unsatisfactoriness of the continuing confusion created by the multiplication of unestablished posts alongside Offices whose holders are doing the same jobs, with Statute C applying to one category and not the other.

The other is the prospect of confusion of the meaning of 'teaching & research' now that the University has created teaching-only Officers, while continuing to treat so many of its research-only staff on fixed-term contracts so badly. Here will in effect be 'research-only' 'Teaching & Research' staff.

COLLEGE NOTICES

Elections

Girton College

Elected to a Professorial Fellowship from 1 May 2023:

Lucio Sarno, M.A., *Oxon*, B.Econ., *Salerno*,
M.Sc., Ph.D., *Liverpool*

Elected to a Non-Stipendiary Fellowship from 1 May 2023:

Alastair James Douglas Flett, B.A., *York*, M.A., *UCL*

Vacancies

Homerton College: College Research Associateships (several posts available); tenure: three years in the first instance, from 1 October 2023 or commencing later in the academic year; non-stipendiary but collegiate benefits apply; closing date: 31 August 2023 at 5 p.m.; further details: <https://www.homerton.cam.ac.uk/about-us/work-us/vacancies>

Queens' College: Junior Research Fellowships in Education, Linguistics, and Quantitative Environmental and Climate Science (one post available in each subject); tenure: three years from 1 October 2024; stipendiary or non-stipendiary depending on circumstance; closing date: 28 September 2023 at 12 noon; further details: <https://www.queens.cam.ac.uk/life-at-queens/vacancies/junior-research-fellowshipsearly-career-fellowships>

EXTERNAL NOTICES

Oxford Notices

Department of Engineering Science and St Anne's College: Professorship of Materials Engineering; tenure: from 1 May 2024 or as soon as possible thereafter; closing date: 18 September 2023 at 12 noon; further details: <https://www.recruit.ox.ac.uk>, vacancy ID: 161206