IIB Sets Academic Year 2023-24

Conditions for candidates:

- candidates must offer 8 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 for Part IIA may again offer the same module for Part IIB.

Notes:

- there will be no Group R (research) modules available to Part IIB students in 2023-24;
- as we do not have exclusive control over imported modules we cannot guarantee that they will not clash with other sets;
- pre-requisites are listed below for new/revised modules only. For pre-existing modules the individual syllabus pages are the definitive source of information about pre-requisites. A summary is also given on the syllabus index page;

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.

- c = coursework only, p = exam only, p+c = coursework and exam.

Set	Unit	Title	Mode	Notes		
Group A: Energy, Fluid Mechanics, and Turbomachinery						
IIBM1	4A2	Computational Fluid Dynamics	С			
IIBM4	4A3	Turbomachinery I	p+c			
IIBM6	4A4	Aircraft Stability and Control	С			
IIBM8	4A7	Aircraft Aerodynamics and Design	С			
IIBM7	4A9	Molecular Thermodynamics	р			
IIBL4	4A10	Flow Instability	p			
IIBL3	4A12	Turbulence and Vortex Dynamics	р			
IIBL5	4A13	Combustion and Engines	р			
IIBL11	4A15	Acoustics	p			
Group	B: Electri	ical Engineering				
IIBM6	4B2	Power Microelectronics	p			
IIBM11	4B5	Quantum and Nano-technologies	р			
IIBM5	4B11	Photonic Systems	р			
IIBL1	4B13	Electronic Sensors and Instrumentation	р			
IIBM2	4B19	Renewable Electrical Power	р			
IIBL2	4B23	Optical Fibre Communication	p+c			
IIBL4	4B24	Radio Frequency Systems	p+c			
IIBL7	4B25	Embedded Systems for the Internet of Things	С			
IIBL8	4B27	Internet of everything	С			
Group	Group C: Mechanics, Materials, and Design					
IIBM3	4C2	Designing with Composites	p+c			
IIBM8	4C3	Advanced Functional Materials and Devices	р			
IIBM2	4C4	Design Methods	p	Shared module		
IIBL4	4C5	Design Case Studies	С			
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	р			
IIBL2	4C11	Data-driven and Learning Based Methods in Mechanics and Materials	С	3C7 assumed, 3D7 useful. Numbers capped to 30?		
Group D: Civil, Structural, and Environmental Engineering						
IIBL3	4D2	Advanced Structural Design	С			
IIBL11	4D4	Construction Engineering	С	3D1, 3D2, 4D16 useful		
IIBM8	4D5	Deep Foundations and Underground Construction	р			
IIBL2	4D6	Dynamics in Civil Engineering	p+c			
IIBM4	4D7	Concrete and Prestressed Concrete	p+c			
IIBL5	4D9	Offshore Geotechnical Engineering	р			

IBMM 4010 Structural Steekoork	_		•	T	T
IBMD 4016 Construction Management p Shared module	IIBM3	4D10	Structural Steelwork	p+c	
Group E: Management and Manufacturing	IIBM12	4D13	Architectural Engineering	С	
Group E: Management and Manufacturing	IIBM2	4D16	Construction Management	р	Shared module
IBM9				Ľ	
IBM9	Group	F: Manac	nement and Manufacturing		Ι
IIBM9					
IBLS 4E5	IIBM9	4E1	Innovation and Strategic Management of Intellectual Property	С	
IBLS 4E5	IIBM9	4F3	Business Innovation in a Digital Age	C	
IBMS 4E6 Accounting and Finance D					
IBBL12 4E11 Strategic Management				.	
			•		
Group F: Information Engineering IIBM5 4F1 Control System Design p+c					
IBM5	IIBL9	4E12	Project Management	С	
IBM5	-				
IBLT 4F2 Robust and Nonlinear Control c	Group	F: Inform	nation Engineering		
IIBL11 4F3 An Optimisation Based Approach to Control p IIBL6 4F5 Advanced Information Theory and Coding p IIBL6 4F5 Advanced Information Theory and Coding p IIBM6 4F10 Deep Learning and Structured data p IIBM1 4F13 Probabilistic Machine Learning c IIBM2 4F12 Computer Systems p+c Group G: Bloengineering C IIBM1 4G1 Mathematical Biology of the Cell c IIBM2 4G2 Computational Neuroscience c IIBM2 4G3 Computational Neuroscience c IIBM3 4G5 Learning C IIBM4 4G3 Computational Neuroscience c IIBM4 4G5 Control and Computation in Living Systems p+c IIBM4 4G7 Control and Computation in Living Systems p+c IIBM4 4G10 Brain Machine Interfaces p IIBM4 4G10 Brain Machine Interfaces p IIBM4 4G10 Brain Machine Interfaces p IIBM6 4G10 Brain Machine Interfaces p IIBM7 4I1 Strategic Valuation (TPE25) c Numbers capped at 5 CUED students IIBM3 4I14 Blosenors and Bioelectronics p IIBM5 4I10 Nuclear Reactor Engineering p IIBM6 4I11 Blosenors and Bioelectronics c IIBM1 4M12 Blosenors and Bioelectronics c IIBM1 4M12 German c IIBM1 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA IIBM1 4M11 AM12 Partial Differential Equations & Variational Methods p Shared with Part IIA IIBM1 4M14 Advanced Building Physics c IIBM1 4M14 Advanced Engineering and Design p IIBM1 4M14 Advanced Engineering and Design p IIBM1 4M14 Advanced Building Physics c IIBM1 4M14 Advanced Building Physics c IIBM1 4M14 Advanced Engineering and Design p IIBM1 4M14 Advanced Engineering p Shared with Part IIA IIBM1 4M14 Advanced Engineering and Design p Shared with Part IIA IIBM2 4C4 Design Methods p Shared with Part IIA	IIBM5	4F1	Control System Design	p+c	
IIBL11 4F3 An Optimisation Based Approach to Control p IIBL6 4F5 Advanced Information Theory and Coding p IIBL8 4F5 Image Processing and Image Coding p IIBM4 4F10 Deep Learning and Structured data p IIBM4 4F10 Computer Vision p IIBM4 4F10 Probabilistic Machine Learning c IIBM1 4F13 Probabilistic Machine Learning c IIBM1 4F13 Probabilistic Machine Learning c IIBM1 4F13 Probabilistic Machine Learning c IIBM1 4G1 Mathematical Biology of the Cell c IIBM4 4G2 Computer Systems p+c IIBM4 4G3 Computational Neuroscience c IIBL8 4G5 Materials and Molecules: Modelling, Simulation and Machine c IIBL8 4G5 Learning c IIBL8 4G6 Cellular and Molecules: Modelling, Simulation and Machine c IIBL8 4G7 Control and Computation in Living Systems p+c IIBL11 4G3 Biomedical Engineering c IIBM4 4G7 Control and Computation in Living Systems p+c IIBM4 4G3 Biomedical Engineering c IIBM6 4G10 Brain Machine Interfaces p IIBM6 4H10 Nuclear Reactor Engineering p IIBM6 4H10 Nuclear Reactor Engineering p IIBM1 4H10 Biosenors and Bioelectronics c IIBM1 4H11 Biosenors and Bioelectronics c IIBM1 4H11 Advanced Fision and Fusion Systems c IIBM1 4H11 AM12 Brain Brai	IIBL7	4F2	Robust and Nonlinear Control	С	
IBL6	IIBI 11	4F3	An Optimisation Based Approach to Control		
IIBL2 4F3 Image Processing and Image Coding IBM6 4F10 Deep Learning and Structured data p IIBM1 4F12 Computer Vision p IIBM1 4F13 Probabilistic Machine Learning c IIBL5 4F14 Computer Systems p+c Group C: Bloengineering IIBM7 4F13 AC Computer Systems p+c Group C: Bloengineering IIBM7 4G1 Mathematical Blology of the Cell IIBL4 4G3 Computational Neuroscience c IIBL4 4G3 Computational Neuroscience c IIBL5 4G6 Cellular and Molecules: Modelling, Simulation and Machine c IIBL5 4G6 Cellular and Molecules: Modelling, Simulation and Machine c IIBL5 4G6 Cellular and Molecules: Modelling, Simulation and Machine c IIBL8 4G7 Control and Computation in Living Systems p+c IIBL1 4G9 Biomedical Engineering c IIBM1 4G7 Biomedical Engineering c IIBM1 4G10 Brain Machine Interfaces p Group I: Imported modules IIBC1 4I1 Strategic Valuation (TPE25) c Numbers capped at 5 CUED students IIBL8 4II Medical Physics p IIBM8 4I10 Nuclear Reactor Engineering p IIBL8 4III Advanced Fission and Fusion Systems c IIBL9 4III Advanced Fission and Fusion Systems c IIBL1 4M16 Blosensors and Bloelectronics c Group M: Multidisciplinary modules IIBL1 4M1 French c IIBL1 4M16 Nuclear Power Engineering p IIBL1 4M16 Nuclear Power Engineering p IIBL1 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA. IIBM1 4M17 Practical Optimization c IIBL1 4M2 Strategic Adjustions and Machine Learning p+c IIBL1 4M2 Storkers Engineering and Design p IIBL8 4M2 Software Engineering and Design p+c IIBL8 4M46 Nuclear Power Engineering p Shared with Part IIA. IIBL8 IIBL9 Shared with Part IIA. IIBL					
IBM6		1	, , ,		
IBM2				*	
IBM1 4F13 Probabilistic Machine Learning c					
BEL5 4F14 Computer Systems			·	р	
Box Group	IIBM1	4F13	Probabilistic Machine Learning	С	
IBM7 4C1 Mathematical Biology of the Cell	IIBL5	4F14	Computer Systems	p+c	
IBM7 4C1 Mathematical Biology of the Cell					
IBM7 4C1 Mathematical Biology of the Cell					
IBM7 4C1 Mathematical Biology of the Cell	Group	G: Bioen	gineering		
IBL4 4G3 Computational Neuroscience C C C C C C C C C				С	
IIBL8 4G5					
	IIDL-	1			
IBBL5 4G6 Cellular and Molecular Biomechanics p	IIBL8	4G5	<u> </u>	С	
IIBM4 4G7 Control and Computation in Living Systems p+c	IIBL 5	4G6		n	
IIBL11 4G9 Biomedical Engineering c	—				
IIBM6					
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IIBCV 4 1	IIBL11	4G9	Biomedical Engineering	С	
IIBCV 4 1	IIBL11	4G9	Biomedical Engineering	С	
IIBL8	IIBL11 IIBM6	4G9 4G10	Biomedical Engineering Brain Machine Interfaces	С	
IIBM5	IIBL11 IIBM6	4G9 4G10 I: Import	Biomedical Engineering Brain Machine Interfaces ed modules	С	
IIBL8	IIBL11 IIBM6	4G9 4G10 I: Import	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25)	c p	Numbers capped at 5 CUED students
IIBL8	IIBL11 IIBM6 Group IIBCV	4G9 4G10 I: Importo	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25)	c p	Numbers capped at 5 CUED students
IIBM3 4114 Biosensors and Bioelectronics	IIBL11 IIBM6 Group IIBCV IIBL8	4G9 4G10 I: Importo 4I1 4I8	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics	c p c p	Numbers capped at 5 CUED students
Group M: Multidisciplinary modules IIBL10 4M1 French C C IIBL10 4M2 German C C C IIBL10 4M3 Spanish C C IIBL10 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA. IIBL1 4M17 Practical Optimization C C IIBM1 4M19 Advanced Building Physics C IIBL1 4M2 Software Engineering and Design p IIBM11 4M22 Climate Change Mitigation C C IIBL2 4M23 Electricity and Environment (TPE22) C IIBM8 4M24 Computational Statistics and Machine Learning p+c IIBL3 4M26 Algorithms and Data Structures p C Group S: Modules shared with Part IIA IIBM2 4C4 Design Methods p Shared with Part IIA. IIBL1 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering P Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering P Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering P Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering P Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering P Shared with Part IIA. IIBL1 4M16 Nuclear	Group IIBCV IIBL8 IIBM5	4G9 4G10 I: Importo 4I1 4I8 4I10	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering	c p c p	Numbers capped at 5 CUED students
IIBL10 4M1 French c IIBL10 4M2 German c IIBM10 4M3 Spanish c IIBL1 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA. IIBM11 4M17 Practical Optimization c c IIBM1 4M19 Advanced Building Physics c c IIBL7 4M21 Software Engineering and Design p IIBM1 4M22 Climate Change Mitigation c IIBL6 4M23 Electricity and Environment (TPE22) c IIBM3 4M24 Computational Statistics and Machine Learning p+c IIBL3 4M26 Algorithms and Data Structures p Group S: Modules shared with Part IIA IIBM2 4C4 Design Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared wit	Group IIBCV IIBL8 IIBM5 IIBL8	4G9 4G10 I: Importe 4I1 4I8 4I10 4I11	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems	c p c p p	Numbers capped at 5 CUED students
IIBL10 4M1 French c IIBL10 4M2 German c IIBM10 4M3 Spanish c IIBL1 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA. IIBM11 4M17 Practical Optimization c c IIBM1 4M19 Advanced Building Physics c c IIBL7 4M21 Software Engineering and Design p IIBM1 4M22 Climate Change Mitigation c IIBL6 4M23 Electricity and Environment (TPE22) c IIBM3 4M24 Computational Statistics and Machine Learning p+c IIBL3 4M26 Algorithms and Data Structures p Group S: Modules shared with Part IIA IIBM2 4C4 Design Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared wit	Group IIBCV IIBL8 IIBM5 IIBL8	4G9 4G10 I: Importe 4I1 4I8 4I10 4I11	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems	c p c p p	Numbers capped at 5 CUED students
IIBL10 4M2 German c IIBM10 4M3 Spanish c IIBL1 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA. IIBM11 4M17 Practical Optimization 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 4M26 Algorithms and Data Structures p Group S: Modules shared with Part IIA IIBM2 IIBM2 4C4 Design Methods p Shared with Part IIA. IIBL1 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA.	Group IIBCV IIBL8 IIBM5 IIBL8 IIBM5	4G9 4G10 I: Importe 4I1 4I8 4I10 4I11 4I14	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics	c p c p p	Numbers capped at 5 CUED students
IIBM10	Group IIBCV IIBL8 IIBM5 IIBL8 IIBM5	4G9 4G10 I: Importe 4I1 4I8 4I10 4I11 4I14 M: Multic	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics	c p c p c c	Numbers capped at 5 CUED students
IIBL1 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA. IIBM11 4M17 Practical Optimization c IIBM11 4M19 Advanced Building Physics c IIBL7 4M21 Software Engineering and Design p IIBM11 4M22 Climate Change Mitigation c c IIBM2 4M23 Electricity and Environment (TPE22) c c IIBM8 4M24 Computational Statistics and Machine Learning p+c IIBL3 4M26 Algorithms and Data Structures p Group S: Modules shared with Part IIA IIBM2 4C4 Design Methods p Shared with Part IIA. IIBL1 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA.	Group IIBL8 IIBM5 IIBL8 IIBM3	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multiced 4M1	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics disciplinary modules French	c p p c c c	Numbers capped at 5 CUED students
IIBL1	Group IIBL8 IIBM5 IIBL8 IIBM3	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multiced 4M1	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics disciplinary modules French	c p p c c c	Numbers capped at 5 CUED students
IIBL1	Group IIBL8 IIBM5 IIBL8 IIBM5 IIBL8 IIBM3	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multiced 4M1 4M2	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics disciplinary modules French German	c p p c c c c	Numbers capped at 5 CUED students
IIBM1 4M17 Practical Optimization 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 4M26 Algorithms and Data Structures p Group S: Modules shared with Part IIA IIBM2 4C4 Design Methods p Shared with Part IIA. IIBL1 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA.	Group IIBL8 IIBM5 IIBL8 IIBM5 IIBL8 IIBM1 IIBL10 IIBL10 IIBL10	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multiced 4M1 4M2 4M3	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics disciplinary modules French German Spanish	C	
IIBM1 4M19 Advanced Building Physics c	Group IIBL8 IIBM5 IIBL8 IIBM3 Group IIBL10 IIBL10 IIBL10 IIBL1	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multiced 4M1 4M2 4M3 4M12	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics disciplinary modules French German Spanish Partial Differential Equations & Variational Methods	C	Shared with Part IIA.
IIBM1 4M19 Advanced Building Physics c	Group IIBL8 IIBM5 IIBL8 IIBM3 Group IIBL10 IIBL10 IIBL10 IIBL1	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multiced 4M1 4M2 4M3 4M12	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics disciplinary modules French German Spanish Partial Differential Equations & Variational Methods	C	Shared with Part IIA.
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 4M26 Algorithms and Data Structures p Group S: Modules shared with Part IIA IIBM2 4C4 Design Methods p Shared with Part IIA. IIBL1 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA.	Group IIBL4 IIBM6 Group IIBCV IIBL8 IIBM5 IIBL8 IIBM1 IIBL10 IIBL10 IIBL11 IIBL1	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multicd 4M1 4M2 4M3 4M12 4M16	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics disciplinary modules French German Spanish Partial Differential Equations & Variational Methods Nuclear Power Engineering	C	Shared with Part IIA.
IIBM11 4M22 Climate Change Mitigation c IIBL6 4M23 Electricity and Environment (TPE22) c IIBM8 4M24 Computational Statistics and Machine Learning p+c IIBL3 4M26 Algorithms and Data Structures p Group S: Modules shared with Part IIA IIBM2 4C4 Design Methods p Shared with Part IIA. IIBL1 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA.	Group IIBL8 IIBM5 IIBL8 IIBM5 IIBL8 IIBM10 IIBL10 IIBL10 IIBL1 IIBL1 IIBL1	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multicd 4M1 4M2 4M3 4M12 4M16 4M17	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics disciplinary modules French German Spanish Partial Differential Equations & Variational Methods Nuclear Power Engineering Practical Optimization	C	Shared with Part IIA.
IIBL6 4M23 Electricity and Environment (TPE22) c IIBM8 4M24 Computational Statistics and Machine Learning p+c IIBL3 4M26 Algorithms and Data Structures p Group S: Modules shared with Part IIA IIBM2 4C4 Design Methods p Shared with Part IIA. IIBL1 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA.	Group IIBL4 IIBM6 Group IIBCV IIBL8 IIBM5 IIBL8 IIBM10 IIBL10 IIBL10 IIBL1 IIBM11 IIBM11 IIBM11	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multion 4M1 4M2 4M3 4M12 4M16 4M17 4M19	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics disciplinary modules French German Spanish Partial Differential Equations & Variational Methods Nuclear Power Engineering Practical Optimization Advanced Building Physics	C	Shared with Part IIA.
IIBL6 4M23 Electricity and Environment (TPE22) c IIBM8 4M24 Computational Statistics and Machine Learning p+c IIBL3 4M26 Algorithms and Data Structures p Group S: Modules shared with Part IIA IIBM2 4C4 Design Methods p Shared with Part IIA. IIBL1 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA.	Group IIBL4 IIBM6 Group IIBCV IIBL8 IIBM5 IIBL8 IIBM10 IIBL10 IIBL10 IIBL1 IIBM11 IIBM11 IIBM11	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multion 4M1 4M2 4M3 4M12 4M16 4M17 4M19	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics disciplinary modules French German Spanish Partial Differential Equations & Variational Methods Nuclear Power Engineering Practical Optimization Advanced Building Physics	C	Shared with Part IIA.
IIBM8 4M24 Computational Statistics and Machine Learning p+c IIBL3 4M26 Algorithms and Data Structures p Group S: Modules shared with Part IIA IIBM2 4C4 Design Methods p Shared with Part IIA. IIBL1 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA.	Group IIBL4 IIBM6 Group IIBCV IIBL8 IIBM5 IIBL8 IIBM1 IIBL10 IIBL10 IIBL10 IIBL1 IIBL1 IIBM11 IIBL1 IIBM11	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multicd 4M1 4M2 4M3 4M12 4M16 4M17 4M19 4M21	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics disciplinary modules French German Spanish Partial Differential Equations & Variational Methods Nuclear Power Engineering Practical Optimization Advanced Building Physics Software Engineering and Design	C	Shared with Part IIA.
Group S: Modules shared with Part IIA IIBM2 4C4 Design Methods p Shared with Part IIA. IIBL1 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA.	Group IIBL4 IIBM6 Group IIBCV IIBL8 IIBM5 IIBL8 IIBM10 IIBL10 IIBL10 IIBL10 IIBL1 IIBM11 IIBL1 IIBM11 IIBM11 IIBM11 IIBM11 IIBM11	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multion 4M1 4M2 4M3 4M12 4M16 4M17 4M19 4M21 4M21	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics disciplinary modules French German Spanish Partial Differential Equations & Variational Methods Nuclear Power Engineering Practical Optimization Advanced Building Physics Software Engineering and Design Climate Change Mitigation	C	Shared with Part IIA.
Group S: Modules shared with Part IIA IIBM2	Group IIBL41 IIBM6 Group IIBCV IIBL8 IIBM5 IIBL8 IIBM10 IIBL10 I	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multion 4M1 4M2 4M3 4M12 4M16 4M17 4M19 4M21 4M22 4M22 4M23	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics disciplinary modules French German Spanish Partial Differential Equations & Variational Methods Nuclear Power Engineering Practical Optimization Advanced Building Physics Software Engineering and Design Climate Change Mitigation Electricity and Environment (TPE22)	C	Shared with Part IIA.
IIBM2 4C4 Design Methods p Shared with Part IIA. IIBL1 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA.	Group IIBL41 IIBM6 Group IIBCV IIBL8 IIBM5 IIBL8 IIBM10 IIBL10 I	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multion 4M1 4M2 4M3 4M12 4M16 4M17 4M19 4M21 4M22 4M22 4M23	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics disciplinary modules French German Spanish Partial Differential Equations & Variational Methods Nuclear Power Engineering Practical Optimization Advanced Building Physics Software Engineering and Design Climate Change Mitigation Electricity and Environment (TPE22) Computational Statistics and Machine Learning	C	Shared with Part IIA.
IIBM2 4C4 Design Methods p Shared with Part IIA. IIBL1 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA.	Group IIBL4 IIBM6 Group IIBCV IIBL8 IIBM5 IIBL8 IIBM10 IIBL10 IIBL10 IIBL10 IIBL1 IIBM11 IIBL1 IIBM11 IIBM11 IIBM11 IIBM11 IIBM11 IIBM11 IIBM11 IIBM11 IIBM11	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multion 4M1 4M2 4M3 4M12 4M16 4M17 4M19 4M21 4M22 4M23 4M24	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics disciplinary modules French German Spanish Partial Differential Equations & Variational Methods Nuclear Power Engineering Practical Optimization Advanced Building Physics Software Engineering and Design Climate Change Mitigation Electricity and Environment (TPE22) Computational Statistics and Machine Learning	C	Shared with Part IIA.
IIBM2 4C4 Design Methods p Shared with Part IIA. IIBL1 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA.	Group IIBL4 IIBM6 Group IIBCV IIBL8 IIBM5 IIBL8 IIBM10 IIBL10 IIBL10 IIBL10 IIBL1 IIBM11 IIBL1 IIBM11 IIBM11 IIBM11 IIBM11 IIBM11 IIBM11 IIBM11 IIBM11 IIBM11	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multion 4M1 4M2 4M3 4M12 4M16 4M17 4M19 4M21 4M22 4M23 4M24	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics disciplinary modules French German Spanish Partial Differential Equations & Variational Methods Nuclear Power Engineering Practical Optimization Advanced Building Physics Software Engineering and Design Climate Change Mitigation Electricity and Environment (TPE22) Computational Statistics and Machine Learning	C	Shared with Part IIA.
IIBL1 4M12 Partial Differential Equations & Variational Methods p Shared with Part IIA. IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA.	IIBL11 IIBM6 Group IIBCV IIBL8 IIBM5 IIBL8 IIBM10 IIBL10 IIBL10 IIBL10 IIBL1 IIBM11 IIBL1 IIBM11 IIBL1 IIBM11 IIBL1 IIBM11 IIBL1	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multicd 4M1 4M2 4M3 4M12 4M16 4M17 4M19 4M21 4M22 4M23 4M24 4M26	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics disciplinary modules French German Spanish Partial Differential Equations & Variational Methods Nuclear Power Engineering Practical Optimization Advanced Building Physics Software Engineering and Design Climate Change Mitigation Electricity and Environment (TPE22) Computational Statistics and Machine Learning Algorithms and Data Structures	C	Shared with Part IIA.
IIBL1 4M16 Nuclear Power Engineering p Shared with Part IIA.	IIBL11 IIBM6 Group IIBCV IIBL8 IIBM5 IIBL8 IIBM10 IIBL10	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multicd 4M1 4M2 4M3 4M12 4M16 4M17 4M19 4M21 4M21 4M23 4M24 4M26 S: Modul	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics lisciplinary modules French German Spanish Partial Differential Equations & Variational Methods Nuclear Power Engineering Practical Optimization Advanced Building Physics Software Engineering and Design Climate Change Mitigation Electricity and Environment (TPE22) Computational Statistics and Machine Learning Algorithms and Data Structures	C	Shared with Part IIA. Shared with Part IIA.
ů ů	Group IIBL1 IIBM6 Group IIBCV IIBL8 IIBM5 IIBL8 IIBM1 IIBL10 IIBL10 IIBL10 IIBM10 IIBL1 IIBM11 IIBL1 IIBM11	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multicd 4M1 4M2 4M3 4M12 4M16 4M17 4M19 4M21 4M21 4M24 4M26 S: Modul	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics disciplinary modules French German Spanish Partial Differential Equations & Variational Methods Nuclear Power Engineering Practical Optimization Advanced Building Physics Software Engineering and Design Climate Change Mitigation Electricity and Environment (TPE22) Computational Statistics and Machine Learning Algorithms and Data Structures es shared with Part IIA Design Methods	C	Shared with Part IIA. Shared with Part IIA. Shared with Part IIA.
IIIBMZ 4D16 Construction Management p Shared with Part IIA.	Group IIBL1 IIBM6 Group IIBCV IIBL8 IIBM5 IIBL8 IIBM1 IIBL10 IIBL10 IIBL10 IIBM10 IIBL1 IIBM11 IIBL1 IIBM11	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multiced 4M1 4M2 4M3 4M12 4M16 4M17 4M19 4M21 4M22 4M23 4M24 4M26 S: Modul 4C4 4M12	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics Bisciplinary modules French German Spanish Partial Differential Equations & Variational Methods Nuclear Power Engineering Practical Optimization Advanced Building Physics Software Engineering and Design Climate Change Mitigation Electricity and Environment (TPE22) Computational Statistics and Machine Learning Algorithms and Data Structures es shared with Part IIA Design Methods Partial Differential Equations & Variational Methods	C	Shared with Part IIA. Shared with Part IIA. Shared with Part IIA. Shared with Part IIA.
	IIBL11 IIBM6 Group IIBCV IIBL8 IIBM5 IIBL8 IIBM10 IIBL10 IIBL10 IIBL10 IIBM10 IIBL1 IIBM11 IIBM11 IIBM11 IIBM11 IIBM11 IIBM1 IIBM1 IIBM1 IIBM1 IIBM1 IIBM1 IIBL1 IIBM1 IIBL1 IIBM1 IIBL1 IIBM1 IIBL1 IIBM1 IIBL1 IIBM1	4G9 4G10 I: Imported 4I1 4I8 4I10 4I11 4I14 M: Multiced 4M1 4M2 4M3 4M12 4M16 4M17 4M19 4M21 4M22 4M23 4M24 4M26 S: Modul 4C4 4M12 4M16	Biomedical Engineering Brain Machine Interfaces ed modules Strategic Valuation (TPE25) Medical Physics Nuclear Reactor Engineering Advanced Fission and Fusion Systems Biosensors and Bioelectronics disciplinary modules French German Spanish Partial Differential Equations & Variational Methods Nuclear Power Engineering Practical Optimization Advanced Building Physics Software Engineering and Design Climate Change Mitigation Electricity and Environment (TPE22) Computational Statistics and Machine Learning Algorithms and Data Structures es shared with Part IIA Design Methods Partial Differential Equations & Variational Methods Nuclear Power Engineering	C	Shared with Part IIA. Shared with Part IIA. Shared with Part IIA. Shared with Part IIA. Shared with Part IIA. Shared with Part IIA.

IIB Sets Michaelmas Term 2022 4A2 Computational Fluid Dynamics IIBM1 4F13 Probabilistic Machine Learning 4M19 Advanced Building Physics 4B19 Renewable Electrical Power 4C4 Design Methods IIBM2 Shared with Part IIA. 4D16 Construction Management р 4F12 Computer Vision 4C2 Designing with Composites р+с IIBM3 4D10 Structural Steelwork р+с 4114 Biosensors and Bioelectronics 4A3 Turbomachinery I р+с 4C6 Advanced Linear Vibrations р+с IIBM4 4D7 Concrete and Prestressed Concrete р+с Control and Computation in Living Systems 4G7 р+с 4B11 Photonic Systems 4C7 Random and Non-Linear Vibrations р+с IIBM5 4F1 Control System Design р+с 4I10 Nuclear Reactor Engineering 4A4 Aircraft Stability and Control 4B2 Power Microelectronics IIBM6 4F10 Deep Learning and Structured data 4G10 Brain machine Interfaces p 4A9 Molecular Thermodynamics IIBM7 4G1 Mathematical Biology of the Cell 4A7 Aircraft Aerodynamics and Design 4C3 Advanced Functional Materials and Devices IIBM8 4D5 Deep Foundations and Underground Construction 4M24 Computational Statistics and Machine Learning р+с 4E1 Innovation and Strategic Management of Intellectual Property IIBM9 4E3 Business Innovation in a Digital Age 4E6 Accounting and Finance IIBM10 4M3 Spanish 4B5 Quantum and Nano technologies IIBM11 4M17 Practical Optimization 4M22 Climate Change Mitigation IIBM12 4D13 Architectural Engineering **Christmas Vacation** IIBCV 4I1 Strategic Valuation (TPE25) Numbers capped at 5 CUED students IIB Sets Lent Term 2024 Unit Title Mode Notes Set

	4B13	Electronic Sensors and Instrumentation	р		
IIBL1	4M12	Partial Differential Equations & Variational Methods	р	Shared with Part IIA.	
	4M16	Nuclear Power Engineering	р	Shared with Part IIA.	
	4C11	Data-driven and Learning Based Methods in Mechanics and Materials	С	3C7 assumed, 3D7 useful. Numbers capped to 30?	
IIBL2	4D6	Dynamics in Civil Engineering	р+с		
	-		-		

IIBL12	4E11	Strategic Management	С	
	T.= : :	Table 1		
	4G9	Biomedical Engineering	С	1
	4F3	An Optimisation Based Approach to Control	р	
IIBL11	4D4	Construction Engineering	С	3D1, 3D2, 4D16 useful
	4A15	Acoustics	р	
	4M2	German	С	
IIBL10	4M1	French	С	
IIBL9	4E12	Project Management	С	
IIBL9	4E5	International Business	С	
	4111	Advanced Fission and Fusion Systems	С	
	4B27	Internet of everything		
IIBL8	418	Medical Physics	р	
IID! 6	4G5	Materials and Molecules: Modelling, Simulation and Machine Learning	С	
	4C8	Vehicle Dynamics	p+c	
	-		-	-
	4M21	Software Engineering and Design	р	
IIDL/	4F2	Robust and Nonlinear Control	С	
IIBL7	4C9	Continuum Mechanics	р	
	4B25	Embedded Systems for the Internet of Things	С	
		, , , , , , , , , , , , , , , , , , , ,	1	•
IIBL6	4M23	Electricity and Environment (TPE22)	С	
	4F5	Advanced Information Theory and Coding	р	
	4G6	Cellular and Molecular Biomechanics	р	
IIBL5	4F14	Computer Systems	p+c	
	4D9	Offshore Geotechnical Engineering	p	
	4A13	Combustion and Engines	р	
	1.00	1	1-	ı
	4G3	Computational Neuroscience	С	
IIBL4	4C5	Design Case Studies	C	
	4B24	Radio Frequency Systems	p+c	
	4A10	Flow Instability	p+c	
	410120	Algorithms and Data Structures	þ	1
ווטבט	4M26	Algorithms and Data Structures	р	
IIBL3	4D2	Advanced Structural Design	c	
	4A12	Turbulence and Vortex Dynamics	р	
	4023	Optical Fibre Communication	p+c	1
	4B23	Optical Fibre Communication	p+c	
	4F8	Image Processing and Image Coding	p+c	