Sets Academic Year 2020-21

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 2020-21;

- 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: Energ	y, Fluid Mechanics, and Turbomachinery		
IIBM1	4A2	Computational Fluid Dynamics	С	Pre-requisites: 3A1 and 3A3 assumed.
IIBM4	4A3	Turbomachinery I	p+c	Pre-requisites: 3A1 and 3A3 assumed.
IIBM6	4A4	Aircraft Stability and Control	С	
IIBM8	4A7	Aircraft Aerodynamics and Design	С	Pre-requisites: 3A1 and 3A3 assumed.
IIBM7	4A9	Molecular Thermodynamics	р	Pre-requisites: 3A1 and 3A5 useful.
IIBM11	4A12	Turbulence and Vortex Dynamics	р	Pre-requisites: 3A1 assumed; 3A3 useful.
IIBL5	4A13	Combustion and Engines	p	
	4A15	Aeroacoustics	р	Pre-requisites: 3A1 useful.
Group	B: Electr	ical Engineering		
IIBM6	4B2	Power Microelectronics	р	Pre-requisites: 3B3 and 3B5 useful.
IIBM11	4B5	Quantum and Nano-technologies	p	Pre-requisite: 3B5 assumed.
IIBM5	4B11	Photonic Systems	p	Pre-requisite: 3B6 useful.
IIBL1	4B13	Electronic Sensors and Instrumentation	р	Pre-requisite: 3B1 assumed.
IIBM2	4B19	Renewable Electrical Power	р	Pre-requisites: 3B3, 3B4, 3B6 assumed.
IIBL2	4B23	Optical Fibre Communication	p+c	Pre-requisites: 3B6 and 3F4 useful.
IIBL4	4B24	Radio Frequency Systems	p+c	Pre-requisite: 3B1 assumed.
IIBM7	4B25	Embedded Systems for the Internet of Things	С	Pre-requisite: 3B2 useful.
Group	C: Mecha	anics, Materials, and Design		
	100			
	4C2	Designing with Composites	p+c	
	4C3	Advanced Functional Materials and Devices	р	Pre-requisite: 3B5 useful.
IIBM2	4C4	Design Methods	р	Shared with IIA.
IIBL4	4C5	Design Case Studies	с	Pre-requisites:4C4 useful.
IIBM4	4C6	Advanced Linear Vibrations	p+c	Pre-requisite: 3C6 assumed.
IIBM5	4C7	Random and Non-Linear Vibrations	p+c	Pre-requisite: 3C6 useful.
IIBL8	4C8	Vehicle Dynamics	p+c	Pre-requisite: 3C5 and 3C6 useful.
IIBL7 IIBL3	4C9 4C15	Continuum Mechanics MEMS: Design	p	Pre-requisite: 3C7 assumed, 3D7 useful.
IIDLJ	4015		p+c	
Group	D: Civil,	I Structural, and Environmental Engineering		
IIBL11		Construction Engineering	С	Pre-requisites: 3D1, 3D2, and 4D16 useful.
	4D5	Foundation Engineering	р	Pre-requisite: 3D2 assumed.
IIBL2	4D6	Dynamics in Civil Engineering	p+c	Pre-requisites: 3D2, 3D4, and 3D7 useful.
	4D7	Concrete and Prestressed Concrete	p+c	Pre-requisites: 2P8 and 3D3 assumed.
	4D9	Offshore Geotechnical Engineering	р	Prerequisites: 3D2 assumed.
	4D10	Structural Steelwork	p+c	Prerequisites: 3D4 assumed, 3D3 useful.
IIBM12		Architectural Engineering	с	Prerequisites: 3D3, 3D4 and 3D8 useful.
IIBM7	4D14	Contaminated Land & Waste Containment	p+c	Pre-requisite: 3D8 useful.
IIBL6	4D15	Management of Resilient Water Systems	С	

Group	E: Mana	gement and Manufacturing		
IIBM9	4E1	Innovation and Strategic Management of Intellectual	С	
IIBM9	4E3	Business Innovation in a Digital Age	С	
IIBM9	4E4	Management of Technology	С	
IIBM9	4E6	Accounting and Finance	С	
IIBL12	4E11	Strategic Management	С	
IIBL9	4E12	Project Management	С	Part IIB Engineering students only.
Group	F: Inforn	ation Engineering		
IIBM5	4F1	Control System Design	p+c	Pre-requisites: 3F1 and 3F2 useful.
IIBL7	4F2	Robust and Nonlinear Control	С	Pre-requisites: 3F2 assumed.
IIBL11	4F3	An Optimisation Based Approach to Control	р	Pre-requisites: 3F1 and 3F2 useful.
IIBL6	4F5	Advanced Information Theory and Coding	р	Pre-requisites: 3F7 assumed. 3F1 and 3F4 useful.
IIBM4	4F7	Statistical Signal Analysis	р	Pre-requisites: 3F3 assumed. 3F1 and 3F8 useful.
IIBL3	4F8	Image Processing and Image Coding	р	Pre-requisites: 3F1 assumed. 3F3 and 3F7 useful.
IIBM6	4F10	Deep Learning and Structured data	р	Pre-requisites: 3F1, 3F3 and 3F8 useful.
IIBM2	4F12	Computer Vision	р	
IIBM1	4F13	Probabilistic Machine Learning	С	Pre-requisites: 3F3 useful.
IIBL5	4F14	Computer Systems	p+c	Pre-requisites: Part I Digital circuits and computing.
Group	G: Bioer			
IIBL4	4G3	Computational Neuroscience	с	Pre-requisites: 3G2, 3G3 useful
IIBL2	4G4	Biomimetics	c	
IIBM6	4G5	Materials and Molecules: Modelling, Simulation and Machine Learning	с	

Group I: Imported modules

IIBCV	411	Strategic Valuation (TPE25)	с	Christmas vacation module. Cap=14. Borrowed from Technology Policy MPhil
IIBL8	418	Medical Physics	р	Borrowed from Physics. Pre-requisite: 3G4 useful.
IIBM5	4110	Nuclear Reactor Engineering	р	Borrowed from Nuclear Energy MPhil. Pre- requisite: 4M16 assumed.
IIBL8	4111	Advanced Fission and Fusion Systems	с	Borrowed from Nuclear Energy MPhil. Pre- requisite: 4M16 assumed.
IIBL6	4114	Biosensors and Bioelectronics	с	Borrowed from Chemical Engineering and Biotechnology. Pre-requisite: 3G3 useful.
IIBL8	4l15	Mobile Robot Systems	С	Borrowed from Computer Laboratory.

Group M: Multidisciplinary modules

IIBL10	4M1	French	С	
IIBL10	4M2	German	С	
IIBM10	4M3	Spanish	С	
IIBL1	4M12	Partial Differential Equations & Variational Methods	р	Shared with IIA.
IIBL1	4M16	Nuclear Power Engineering	р	Shared with IIA.
IIBM11	4M17	Practical Optimization	С	Pre-requisite: 3M1 assumed.
IIBM12	4M20	Robotics	с	Pre-requisites: 3C5, 3C8, 3F2 and 3F3 useful.
IIBL7	4M21	Software Engineering and Design	р	
IIBM11	4M22	Climate Change Mitigation	С	
IIBL6	4M23	Electricity and Environment (TPE22)	С	
IIBM2	4M24	Computational Statistics and Machine Learning	p+c	Pre-requisites: 3F3, 3F8 and 3M1 assumed.

Group S: Modules shared with Part IIA					
IIBM2	4C4	Design Methods	р	Shared with IIA.	
IIBL1	4M12	Partial Differential Equations & Variational Methods	р	Shared with IIA.	
IIBL1	4M16	Nuclear Power Engineering	р	Shared with IIA.	

4H12 Computer Vision p 4M24 Computational Statistics and Machine Learning p+c IIBM3 4C2 Designing with Composites p+c 4D10 Structural Steelwork p+c Pre-requisites: 3D4 assumed, 3D3 use 4A3 Turbomachinery I p+c Pre-requisites: 3A1 and 3A3 assumed. 4C6 Advanced Linear Vibrations p+c Pre-requisites: 2C6 assumed. 4D7 Concrete and Prestressed Concrete p+c Pre-requisite: 3C6 assumed. 4F7 Statistical Signal Analysis p Pre-requisite: 3C6 useful. 4F7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4E7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4I10 Nuclear Reactor Engineering p Pre-requisite: 3C6 useful. 4I10 Nuclear Reactor Engineering p Pre-requisite: 3B3 and 3B5 useful. 4E10 Deep Learning and Structured data p Pre-requisite: 3A1 and 3A5 useful. 4E10 Deep Learning and Structured data p Pre-requisite: 3B1 and 3F8 useful. 4E11 Materials and Molecules: Modeling. Simulation and			IIB Sets Michaelmas Te	<u>rm 20</u>	20
IBM1 4F13 Probabilistic Machine Learning c Pre-requisites: 3F3 useful. IBM2 4F12 Computer Vision p Shared with IIA. 4F44 Computer Vision p Shared with IIA. 4M24 Computer Vision p 4M84 Computer Vision p+c 4M54 Computer Vision p+c 4D10 Structural Statistics and Machine Learning p+c 4D10 Structural Stelework p+c 4D10 Structural Stelework p+c 4A3 Turbomachinery I p+c 4C6 Advanced Linear Vibrations p+c 4F7 Statistical Signal Analysis p 4F7 Statistical Signal Analysis p 4B11 Photonic Systems p Pre-requisite: 3F3 assumed. 3F1 and 3F2 useful. 4F7 Statistical Signal Analysis p Pre-requisite: 3F1 and 3F2 useful. 4F10 Nuclear Reactor Engineering p Pre-requisite: 3B1 and 3F2 useful. 4F10 Deep Learning and Structured data p p Pre-requisite: 3B1 and 3F2 useful. 4F10 <t< th=""><th></th><th>11.0</th><th></th><th></th><th></th></t<>		11.0			
IBM2 4B19 Renewable Electrical Power p Pre-requisites: 3B3, 3B4, 3B6 assume IIBM2 4C4 Design Methods p Shared with IIA. 4F12 Computer Vision p Shared with IIA. 4F12 Computer Vision p Shared with IIA. 4F12 Computer Vision p C 4D10 Structural Statistics and Machine Learning p+c 4D10 Structural Steelwork p+c 4A3 Turbomachinery I p+c Pre-requisites: 3A1 and 3A3 assumed. 4C6 Advanced Linear Vibrations p+c Pre-requisites: 2F8 and 3D3 assumed. 4F7 Statistical Signal Analysis p Pre-requisites: 3F1 and 3P2 assemd. 4F1 Control System Seign p-c Pre-requisite: 3B6 useful. 4F1 Control System Design p-c Pre-requisite: 3B1 and 3P2 useful. 4F1 Control System Design p Pre-requisite: 3B1 and 3P2 useful. 4F1 Control System Design p Pre-requisite: 3B1 and 3B5 useful. 4F1 Dotep Learning and Structu	IIBM1			-	
IIBM2 4C4 Design Methods p Shared with IIA. 4F12 Computer Vision p 4M24 Computer Vision p+c 1IBM3 4C2 Designing with Composites p+c 4M10 Structural Steetwork p+c Pre-requisites: 3D4 assumed, 3D3 use 4M3 Turbomachinery I p+c Pre-requisites: 3A1 and 3A3 assumed, 3D3 use 4M3 Turbomachinery I p+c Pre-requisites: 3C6 assumed. 4M4 Concrete and Prestressed Concrete p++c Pre-requisites: 3F3 assumed. 3F1 and 3D3 assumed. 4F7 Statistical Signal Analysis p Pre-requisites: 3F1 and 3D3 assumed. 4B11 Photonic Systems p+c Pre-requisite: 3F1 and 3P2 useful. 4C7 Random and Non-Linear Vibrations p+c Pre-requisite: 3F1 and 3F2 useful. 4B10 Nuclear Reactor Engineering p Pre-requisite: 3F1 and 3F2 useful. 410 Nuclear Reactor Engineering p Pre-requisite: 3F1 and 3F3 useful. 4110 Nuclear Reactor Engineering p Pre-requisite: 3F1 and 3F3 useful. 455 Embedded Systems for the Internet of Things p Pre-requisite: 3F1 and 3F3 useful. 465 Embedded Systems for the Internet of Things Pre-requisite: 3A1 and 3A5 useful. <td></td> <td>4⊦13</td> <td>Probabilistic Machine Learning</td> <td>С</td> <td>Pre-requisites: 3F3 useful.</td>		4⊦13	Probabilistic Machine Learning	С	Pre-requisites: 3F3 useful.
IBM2 4C4 Design Methods p Shared with IIA. 4F12 Computer Vision p 4M24 Computer Vision p+c 4M24 Computer Vision p+c 4M24 Computer Vision p+c 4M3 C2 Designing with Composites p+c 4M3 Turbomachinery I p+c Pre-requisites: 3D4 assumed, 3D3 use 4M3 Turbomachinery I p+c Pre-requisites: 3C6 assumed. 4G6 Advanced Linear Vibrations p+c Pre-requisites: 3C6 assumed. 4G7 Statistical Signal Analysis p Pre-requisite: 3B6 useful. 4G7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4G7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4G7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4G7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4G7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4G7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C1 assumed. 4H10 Nuclear Reactor Engineering p Pre-requisite: 3C1 assumed. 4L11 Noreelectronics		4B19	Renewable Electrical Power	p	Pre-requisites: 3B3, 3B4, 3B6 assumed.
IBM2 F12 Computer Vision p 4M24 Computational Statistics and Machine Learning p+c 4M24 Computational Statistics and Machine Learning p+c IIBM3 4C2 Designing with Composites p+c 4B10 Structural Steelwork p+c Pre-requisites: 3D4 assumed, 3D3 use 4B11 Structural Steelwork p+c Pre-requisites: 3A1 and 3A3 assumed 4B7 Concrete and Prestressed Concrete p+c Pre-requisite: 3F3 assumed, 3F1 and 4B7 Statistical Signal Analysis p Pre-requisite: 3F3 assumed, 3F1 and 4B7 Random and Non-Linear Vibrations p+c Pre-requisite: 3G6 useful. 4F7 Statistical Signal Analysis p Pre-requisite: 3G6 useful. 4F7 Random and Non-Linear Vibrations p+c Pre-requisite: 3G6 useful. 4F10 Nuclear Reactor Engineering p Pre-requisite: 3B6 useful. 4F10 Nuclear Reactor Engineering p Pre-requisite: 3B1 and 3F3 useful. 4F10 Deep Learning and Structured data p Pre-requisite: 3B1 and 3A5 useful. 4F10 Deep Learning and Structured data p					
4M24 Computational Statistics and Machine Learning p+c IIBM3 4C2 Designing with Composites p+c 4D10 Structural Steelwork p+c 4A3 Turbomachinery I p+c 4C6 Advanced Linear Vibrations p+c 4D7 Concrete and Prestressed Concrete p+c 4F7 Statistical Signal Analysis p 4E7 Statistical Signal Analysis p 4E7 Random and Non-Linear Vibrations p+c 4F7 Statistical Signal Analysis p 4E7 Random and Non-Linear Vibrations p+c 4F1 Control System Design p+c 4F1 Control System Design p+c 4E7 Random and Non-Linear Vibrations p 4E7 Control System Design p+c 4E7 Control System Design p+c 4E7 Dever Microelectronics p 4E8 Power Microelectronics p 4E4 Aircraft Stability and Control c 4E4 Materials and Molecules: Modelling, Simulation and Machine Learning pre-requisites: 3	IIBM2				
IIBMS 4D10 Structural Steelwork p+c Prerequisites: 3D4 assumed, 3D3 use 4A3 Turbomachinery I p+c Pre-requisites: 3A1 and 3A3 assumed 4C6 Advanced Linear Vibrations p+c Pre-requisites: 2C6 assumed. 4D7 Concrete and Prestressed Concrete p+c Pre-requisites: 2C6 assumed. 4F7 Statistical Signal Analysis p Pre-requisite: 3C6 useful. 4F7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4E7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4E7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4E7 Control System Design p+c Pre-requisite: 3C1 and 3F2 useful. 4H10 Nuclear Reactor Engineering p Pre-requisite: 3H1 and 3F2 useful. 4E10 Nuclear Reactor Engineering p Pre-requisite: 3B3 and 3B5 useful. 4F10 Deep Learning and Structured data p Pre-requisite: 3B1 and 3A5 useful. 4F10 Deep Learning and Structured data p Pre-requisite: 3B1 and 3A5 useful. 4G5 Materials and Molecules: Modelling, Simulation and <t< td=""><td></td><td></td><td></td><td></td><td></td></t<>					
IIBMS 4D10 Structural Steelwork p+c Prerequisites: 3D4 assumed, 3D3 use 4A3 Turbomachinery I p+c Pre-requisites: 3A1 and 3A3 assumed 4C6 Advanced Linear Vibrations p+c Pre-requisites: 2C6 assumed. 4F7 Statistical Signal Analysis p Pre-requisites: 2F8 and 3D3 assumed. 4F7 Statistical Signal Analysis p Pre-requisite: 3E6 useful. 4F7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4F7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4F1 Control System Design p+c Pre-requisite: 3C6 useful. 4F1 Control System Design p+c Pre-requisite: 3F1 and 3F2 useful. 4F10 Nuclear Reactor Engineering p Pre-requisites: 3F1 and 3F2 useful. 4F10 Deep Learning and Structured data p Pre-requisites: 3F1, 3F3 and 3F8 useful. 4F3 Materials and Molecules: Modelling, Simulation and Machine Learning p+c Pre-requisite: 3A1 and 3A3 useful. 4F4 Aircraft Aerodynamics p Pre-requisite: 3A1 and 3A3 assumed 4G5 Materials and Decules: Modelling, C		400	Designing with Compositor		
4A3 Turbomachinery I p+c Pre-requisites: 3A1 and 3A3 assumed 4B4 Advanced Linear Vibrations p+c Pre-requisites: 3C6 assumed. 4D7 Concrete and Prestressed Concrete p+c Pre-requisites: 3F3 assumed. 3D3 assumed. 4F7 Statistical Signal Analysis p Pre-requisites: 3F3 assumed. 3F1 and useful. 4F7 Statistical Signal Analysis p Pre-requisite: 3C6 useful. 4F7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4F1 Control System Design p+c Pre-requisite: 3F1 and 3F2 useful. 4H10 Nuclear Reactor Engineering p Borrowed from Nuclear Energy MPhil. 4H10 Nuclear Reactor Engineering p Pre-requisites: 3F1 and 3F2 useful. 4F10 Deep Learning and Structured data p Pre-requisites: 3F1 and 3F8 useful. 4F10 Deep Learning p Pre-requisites: 3F1 and 3A5 useful. 4B25 Embedded Systems for the Internet of Things c Pre-requisite: 3D8 useful. 4B43 Advanced Functional Materials and Devices p Pre-requisite: 3D4 assumed. 1IBM7 4A7 Aitreaft Aerodynamics and Design <td>IIBM3</td> <td></td> <td></td> <td></td> <td></td>	IIBM3				
IIBM4 4C6 Advanced Linear Vibrations p+c Pre-requisite: 3C6 assumed. 4D7 Concrete and Prestressed Concrete p+c Pre-requisite: 3C6 assumed. 3D3 assumed. 4F7 Statistical Signal Analysis p Pre-requisite: 3C6 assumed. 4E7 Statistical Signal Analysis p Pre-requisite: 3C6 useful. 4E7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4C7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4E11 Dhotonic System Design p+c Pre-requisite: 3F1 and 3F2 useful. 4I10 Nuclear Reactor Engineering p Pre-requisite: 3H1 and 3F2 useful. 4110 Nuclear Reactor Engineering p Pre-requisite: 3B3 and 3B5 useful. 4110 Nuclear Reactor Engineering p Pre-requisite: 3F1, 3F3 and 3F8 useful. 41864 Aircraft Stability and Control c Image and Structured data p Pre-requisite: 3F1, 3F3 and 3F8 useful. 4187 Aircraft Astability and Structured data p Pre-requisite: 3A1 and 3A5 useful. Pre-requisite: 3B2 useful. 4180 Molecular Thermodynamics p Pre-requisite: 3B2 us		4D10	Structural Steelwork	p+c	Prerequisites: 3D4 assumed, 3D3 useful.
IIBM4 4C6 Advanced Linear Vibrations p+c Pre-requisite: 3C6 assumed. 4D7 Concrete and Prestressed Concrete p+c Pre-requisite: 3C6 assumed. 3D3 assumed. 4F7 Statistical Signal Analysis p Pre-requisite: 3C6 useful. 4E7 Statistical Signal Analysis p Pre-requisite: 3C6 useful. 4E7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4E7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4E7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4E7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4E7 Nuclear Reactor Engineering p Pre-requisite: 3F1 and 3F2 useful. 4I10 Nuclear Reactor Engineering p Pre-requisite: 3B3 and 3B5 useful. 4B2 Power Microelectronics p Pre-requisite: 3F1, 3F3 and 3F8 useful. 4B5 Embedded Systems for the Internet of Things c Pre-requisite: 3B4 and 3A5 useful. 4B65 Molecular Thermodynamics and Design c Pre-requisite: 3B5 useful. 4B7 Aircraft Aerodynamics and Design <		4A3	Turbomachinery I	p+c	Pre-requisites: 3A1 and 3A3 assumed.
IIBM4 4D7 Concrete and Prestressed Concrete p+c Pre-requisites: 2P8 and 3D3 assumed 4F7 Statistical Signal Analysis p Pre-requisites: 3F3 assumed. 3F1 and useful. IIBM5 4F1 Photonic Systems p Pre-requisite: 3B6 useful. 4C7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4C7 Random and Non-Linear Vibrations p+c Pre-requisite: 3T1 and 3F2 useful. 4I10 Nuclear Reactor Engineering p Borrowed from Nuclear Energy MPhil. 4I10 Nuclear Reactor Engineering p Pre-requisites: 3F1 and 3F2 useful. 4B41 Aircraft Stability and Control c IBM6 Barrowed from Nuclear Energy MPhil. 4G5 Materials and Molecules: Modelling, Simulation and Materials and Molecules: Modelling, Simulation and Materials and SA5 useful. p Pre-requisites: 3F1, 3F3 and 3F8 useful. 4B5 Embedded Systems for the Internet of Things c Pre-requisite: 3B2 useful. Pre-requisite: 3B4 useful. 4B5 Embedded Systems for the Internet of Things c Pre-requisite: 3B4 useful. Pre-requisite: 3B4 useful. 4B7 Aircraft Aerodynamics and Design c Pre-requisite: 3B4 u					
4F7 Statistical Signal Analysis p Pre-requisite: 3F3 assumed. 3F1 and useful. 4B11 Photonic Systems p Pre-requisite: 3B6 useful. 4C7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. 4F1 Control System Design p+c Pre-requisite: 3C6 useful. 4F1 Control System Design p+c Pre-requisite: 3T1 and 3F2 useful. 4F1 Control System Design p+c Pre-requisite: 3T1 and 3F2 useful. 4F1 Control System Design p+c Pre-requisite: 3T1 and 3F2 useful. 4F1 Deep Learning and Structured data p Pre-requisites: 3F1 and 3F3 useful. 4F10 Deep Learning and Structured data p Pre-requisites: 3F1 and 3F8 useful. 4G5 Materials and Molecules: Modelling, Simulation and Machine Learning p Pre-requisite: 3A1 and 3A5 useful. 4B25 Embedded Systems for the Internet of Things c Pre-requisite: 3B2 useful. 4D14 Contaminated Land & Waste Containment p+c Pre-requisite: 3B1 and 3A3 assumed 4B3 Advanced Functional Materials and Devices p Pre-requisite: 3B1 useful. 4D5 Foundation Engineering<	IIBM4	4D7		-	
IBM5 Image: Amount of the internet of Things p Pre-requisite: 3B6 useful. IBM5 Image: Amount of the internet of Things p+c Pre-requisite: 3C6 useful. IBM6 Image: Amount of the internet of Things p Pre-requisite: 3B1 and 3F2 useful. IBM6 Image: Amount of the internet of Things p Pre-requisite: 3B3 and 3B5 useful. IBM6 Image: Amount of the internet of Things p Pre-requisite: 3B1 and 3A5 useful. IBM7 Image: Amount of the internet of Things c Pre-requisite: 3B2 useful. IBM7 Image: Amount of the internet of Things c Pre-requisite: 3B2 useful. IBM8 Image: Amount of the internet of Things c Pre-requisite: 3B2 useful. IBM7 Image: Amount of the internet of Things c Pre-requisite: 3B2 useful. IBM8 Image: Amount of the internet of Things c Pre-requisite: 3B2 useful. IBM8 Image: Amount of the internet of Things c Pre-requisite: 3B1 and 3A3 assumed IIBM8 Image: Amount of the internet of Things c Pre-requisite: 3B2 useful. IIBM8 Image: Amount of the internet of Things c Pre-requisite: 3B1 and 3A3 assumed.				1	Pre-requisites: 3F3 assumed. 3F1 and 3F
IBM5 4C7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. IIBM5 4F1 Control System Design p+c Pre-requisite:: 3F1 and 3F2 useful. IIBM6 4F1 Control System Design p+c Pre-requisite:: 3F1 and 3F2 useful. IIBM6 Aircraft Stability and Control c Borrowed from Nuclear Energy MPhil. IIBM6 4B2 Power Microelectronics p Pre-requisite:: 3B3 and 3B5 useful. 4F10 Deep Learning and Structured data p Pre-requisites:: 3F1, 3F3 and 3F8 useful. 4G5 Materials and Molecules: Modelling, Simulation and Machine Learning p Pre-requisites:: 3A1 and 3A5 useful. IIBM7 4B25 Embedded Systems for the Internet of Things c Pre-requisite:: 3A1 and 3A3 useful. 4G5 Advanced Functional Materials and Devices p Pre-requisite:: 3A1 and 3A3 assumed 4B45 Foundation Engineering p Pre-requisite:: 3A1 and 3A3 assumed. 4B55 Foundation Engineering p Pre-requisite:: 3A1 and 3A3 assumed. 4B54 Innovation and Strategic Management of Intellectual c Image and addite addit		461	Statistical Signal Analysis	ρ	useful.
IBM5 4C7 Random and Non-Linear Vibrations p+c Pre-requisite: 3C6 useful. IBM5 4F1 Control System Design p+c Pre-requisite: 3T1 and 3F2 useful. IIBM6 4F1 Control System Design p+c Pre-requisite: 3T1 and 3F2 useful. IIBM6 Aircraft Stability and Control c Borrowed from Nuclear Energy MPhil. IIBM6 4B2 Power Microelectronics p Pre-requisite: 3B3 and 3B5 useful. 4F10 Deep Learning and Structured data p Pre-requisites: 3F1, 3F3 and 3F8 useful. 4G5 Materials and Molecules: Modelling, Simulation and Machine Learning p Pre-requisites: 3A1 and 3A5 useful. IIBM7 4B25 Embedded Systems for the Internet of Things c Pre-requisite: 3B2 useful. 4D14 Contaminated Land & Waste Containment p+c Pre-requisite: 3A1 and 3A3 assumed 4B88 Advanced Functional Materials and Devices p Pre-requisite: 3D2 assumed. IIBM8 4C3 Advanced Functional Materials and Devices p Pre-requisite: 3D2 assumed. IIBM9 4E1 Innovation and Strategic Management of Intellectual c Imand adddddddddddddddddddddddddddddddddd		4R11	Photonic Systems	In	Pre-requisite: 3R6 useful
IIBM5 4F1 Control System Design p+c Pre-requisites: 3F1 and 3F2 useful. IIBM6 4110 Nuclear Reactor Engineering p Borrowed from Nuclear Energy MPhil. requisite: 4M16 assumed. IIBM6 4A4 Aircraft Stability and Control c p IIBM6 4A4 Aircraft Stability and Control c p IIBM6 4A4 Aircraft Stability and Control c p IIBM6 4A5 Power Microelectronics p Pre-requisites: 3B3 and 3B5 useful. 4F10 Deep Learning and Structured data p Pre-requisites: 3F1 and 3F2 useful. IIBM7 4A5 Materials and Molecules: Modelling, Simulation and Machine Learning p Pre-requisites: 3A1 and 3A5 useful. IIBM7 4A9 Molecular Thermodynamics p Pre-requisite: 3B2 useful. Pre-requisite: 3D3 and 3F3 useful. IIBM7 4A5 Embedded Systems for the Internet of Things c Pre-requisite: 3D3 useful. IIBM8 4A7 Aircraft Aerodynamics and Design c Pre-requisite: 3D1 and 3A3 assumed. IIBM8 4A7 Aircraft Aerodynamics and Design c Pre-requisite: 3D2 assumed. <td></td> <td></td> <td></td> <td></td> <td></td>					
4110 Nuclear Reactor Engineering p Borrowed from Nuclear Energy MPhil. requisite: 4M16 assumed. 4110 Nuclear Reactor Engineering p Borrowed from Nuclear Energy MPhil. requisite: 4M16 assumed. 4110 Atcraft Stability and Control c p Pre-requisites: 3B3 and 3B5 useful. 4110 Deep Learning and Structured data p Pre-requisites: 3F1, 3F3 and 3F8 useful. 410 Materials and Molecules: Modelling, Simulation and Machine Learning p Pre-requisites: 3A1 and 3A5 useful. 4101 Molecular Thermodynamics p Pre-requisite: 3B2 useful. Pre-requisite: 3B2 useful. 41014 Contaminated Land & Waste Containment p+c Pre-requisite: 3D4 useful. Pre-requisite: 3D4 useful. 41014 Contaminated Land & Waste Containment p+c Pre-requisite: 3D4 useful. Pre-requisite: 3D4 useful. 41014 Contaminated Land & Waste Containment p+c Pre-requisite: 3D4 useful. Pre-requisite: 3D4 useful. 41014 Contaminated Land & Waste Containment p+c Pre-requisite: 3D4 useful. Pre-requisite: 3D4 useful. 41014 Advanced Functional Materials and Devices p Pre-requisite: 3D4 useful. Pre-requisite: 3D4 useful.					
4110 Nuclear Reactor Engineering p requisite: 4M16 assumed. 4110 Nuclear Reactor Engineering p requisite: 4M16 assumed. 11BM6 482 Power Microelectronics p Pre-requisites: 3B3 and 3B5 useful. 4F10 Deep Learning and Structured data p Pre-requisites: 3F1, 3F3 and 3F8 useful. 4G5 Materials and Molecules: Modelling, Simulation and Machine Learning p Pre-requisites: 3A1 and 3A5 useful. 11BM7 4A9 Molecular Thermodynamics p Pre-requisite: 3B2 useful. 4B25 Embedded Systems for the Internet of Things c Pre-requisite: 3B2 useful. 4D14 Contaminated Land & Waste Containment p+c Pre-requisite: 3D3 useful. 4D4 Contaminated Land & Waste Containment p+c Pre-requisite: 3D1 and 3A3 assumed. 4D3 Advanced Functional Materials and Devices p Pre-requisite: 3D1 and 3A3 assumed. 4D5 Foundation Engineering p Pre-requisite: 3D2 assumed. 4D5 Foundation and Strategic Management of Intellectual c 1 4B1 Innovation and Strategic Management of Intellectual c 1 4E1 <				p+c	
IIBM6 4B2 Power Microelectronics p Pre-requisites: 3B3 and 3B5 useful. 4F10 Deep Learning and Structured data p Pre-requisites: 3F1, 3F3 and 3F8 usef 4G5 Materials and Molecules: Modelling, Simulation and Machine Learning p Pre-requisites: 3A1 and 3A5 useful. IIBM7 4A9 Molecular Thermodynamics p Pre-requisites: 3A1 and 3A5 useful. IIBM7 4A9 Molecular Thermodynamics for the Internet of Things c Pre-requisite: 3B2 useful. IIBM7 4B25 Embedded Systems for the Internet of Things c Pre-requisite: 3D8 useful. IIBM8 4A7 Aircraft Aerodynamics and Design c Pre-requisite: 3B5 useful. IIBM8 4A7 Aircraft Aerodynamics and Design p Pre-requisite: 3D3 useful. IIBM8 4A7 Aircraft Aerodynamics and Design p Pre-requisite: 3D3 useful. IIBM8 4A7 Aircraft Aerodynamics and Devices p Pre-requisite: 3D2 assumed. IIBM9 4E1 Innovation and Strategic Management of Intellectual c Image: second action in a Digital Age c IIBM9 4E1 Innovation and Strategic Management of Intellectual <td></td> <td>4110</td> <td>Nuclear Reactor Engineering</td> <td>р</td> <td></td>		4110	Nuclear Reactor Engineering	р	
IIBM6 4B2 Power Microelectronics p Pre-requisites: 3B3 and 3B5 useful. 4F10 Deep Learning and Structured data p Pre-requisites: 3F1, 3F3 and 3F8 usef 4G5 Materials and Molecules: Modelling, Simulation and Machine Learning p Pre-requisites: 3A1 and 3A5 useful. IIBM7 4A9 Molecular Thermodynamics p Pre-requisites: 3A1 and 3A5 useful. IIBM7 4A9 Molecular Thermodynamics for the Internet of Things c Pre-requisite: 3B2 useful. IIBM7 4B25 Embedded Systems for the Internet of Things c Pre-requisite: 3D8 useful. IIBM8 4A7 Aircraft Aerodynamics and Design c Pre-requisite: 3B5 useful. IIBM8 4A7 Aircraft Aerodynamics and Design p Pre-requisite: 3D3 useful. IIBM8 4A7 Aircraft Aerodynamics and Design p Pre-requisite: 3D3 useful. IIBM8 4A7 Aircraft Aerodynamics and Devices p Pre-requisite: 3D2 assumed. IIBM9 4E1 Innovation and Strategic Management of Intellectual c Image: second action in a Digital Age c IIBM9 4E1 Innovation and Strategic Management of Intellectual <td></td> <td>-</td> <td></td> <td></td> <td>-</td>		-			-
4F10 Deep Learning and Structured data p Pre-requisites: 3F1, 3F3 and 3F8 usef 4G5 Materials and Molecules: Modelling, Simulation and Machine Learning Pre-requisites: 3F1, 3F3 and 3F8 usef 1IBM7 4A9 Molecular Thermodynamics p Pre-requisites: 3A1 and 3A5 useful. 1IBM7 4B25 Embedded Systems for the Internet of Things c Pre-requisite: 3B2 useful. 1IBM7 4B25 Embedded Systems for the Internet of Things c Pre-requisite: 3D8 useful. 1IBM8 4A7 Aircraft Aerodynamics and Design c Pre-requisite: 3B5 useful. 1IBM8 4A7 Aircraft Aerodynamics and Design c Pre-requisite: 3D2 assumed. 1IBM8 4E1 Innovation and Strategic Management of Intellectual c c 4E1 Innovation and Strategic Management of Intellectual c c 4E4 Management of Technology c c 4BM10 4M3 Spanish c c			Aircraft Stability and Control	С	
4G5 Materials and Molecules: Modelling, Simulation and Machine Learning 1IBM7 4A9 Molecular Thermodynamics p Pre-requisites: 3A1 and 3A5 useful. 1IBM7 4B25 Embedded Systems for the Internet of Things c Pre-requisite: 3B2 useful. 4D14 Contaminated Land & Waste Containment p+c Pre-requisite: 3D8 useful. 4B8 4A7 Aircraft Aerodynamics and Design c Pre-requisite: 3A1 and 3A3 assumed 4C3 Advanced Functional Materials and Devices p Pre-requisite: 3B5 useful. Pre-requisite: 3D2 assumed. 4B8 4C3 Advanced Functional Materials and Devices p Pre-requisite: 3D2 assumed. 4B1 Innovation and Strategic Management of Intellectual c c 441 445 4B4 Management of Technology c c 446 4E4 Macounting and Finance c 118M9 4412 Turbulence and Vortex Dynamics p Pre-requisites: 3A1 assumed; 3A3 use IBM10 4M3 Spanish c 118M1 4A12 Turbulence and Vortex Dynamics p Pre-requisites: 3A1 assumed; 3A3 use IBM11 4A12 Turbulence and	IIBM6	4B2		р	
4G5 Machine Learning IIBM7 4A9 Molecular Thermodynamics p Pre-requisites: 3A1 and 3A5 useful. IIBM7 4B25 Embedded Systems for the Internet of Things c Pre-requisite: 3B2 useful. 4D14 Contaminated Land & Waste Containment p+c Pre-requisite: 3D8 useful. IIBM8 4A7 Aircraft Aerodynamics and Design c Pre-requisite: 3B1 useful. IIBM8 4A7 Aircraft Aerodynamics and Design c Pre-requisite: 3D1 and 3A3 assumed. IIBM8 4A7 Aircraft Aerodynamics and Design c Pre-requisite: 3D2 useful. IIBM8 4A7 Aircraft Aerodynamics and Design c Pre-requisite: 3D2 assumed. IIBM8 4A7 Aircraft Aerodynamics and Design c Pre-requisite: 3D2 assumed. IIBM9 4E1 Innovation and Strategic Management of Intellectual c c Image: assumed. IIBM9 4E1 Innovation and Strategic Management of Intellectual c c Image: assumed. IIBM10 4M3 Spanish c Image: assumed. c IBM11 4A12 Turbulence and Vortex Dynamics p Pr		4F10		р	Pre-requisites: 3F1, 3F3 and 3F8 useful.
4A9 Molecular Thermodynamics p Pre-requisites: 3A1 and 3A5 useful. IIBM7 4B25 Embedded Systems for the Internet of Things c Pre-requisite: 3B2 useful. 4D14 Contaminated Land & Waste Containment p+c Pre-requisite: 3D8 useful. IIBM8 4A7 Aircraft Aerodynamics and Design c Pre-requisite: 3D1 useful. IIBM8 4A7 Aircraft Aerodynamics and Design c Pre-requisite: 3B5 useful. 4D5 Foundation Engineering p Pre-requisite: 3D2 assumed. IIBM9 4E1 Innovation and Strategic Management of Intellectual c c 4E3 Business Innovation in a Digital Age c c 4E4 Management of Technology c c 4E6 Accounting and Finance c c IBM10 4M3 Spanish c c 4M17 Practical Optimization c Pre-requisite: 3M1 assumed; 3A3 use 4BM11 4A12 Turbulence and Vortex Dynamics p Pre-requisite: 3B5 assumed. 4BM11 4A12 Climate Change Mitigation c Pre-requisite: 3B5 assumed.		4G5	•		
IIBM7 4B25 Embedded Systems for the Internet of Things c Pre-requisite: 3B2 useful. 4D14 Contaminated Land & Waste Containment p+c Pre-requisite: 3D8 useful. IIBM8 4A7 Aircraft Aerodynamics and Design c Pre-requisite: 3B1 useful. IIBM8 4C3 Advanced Functional Materials and Devices p Pre-requisite: 3B5 useful. 4D5 Foundation Engineering p Pre-requisite: 3D2 assumed. IIBM9 4E1 Innovation and Strategic Management of Intellectual c c 4E3 Business Innovation in a Digital Age c 4E4 Management of Technology c 4E6 Accounting and Finance c IBM10 4M3 Spanish c IBM11 4A12 Turbulence and Vortex Dynamics p Pre-requisites: 3A1 assumed; 3A3 use 4M17 Practical Optimization c Pre-requisite: 3B5 assumed. 4M22 Climate Change Mitigation c Pre-requisite: 3B5 assumed. 4B5 Quantum and Nano-technologies p Pre-requisites: 3D3, 3D4 and 3D8 usef IBM12 4D13 Architectural Engineer			· · · · · ·	<u>.</u>	-
4D14 Contaminated Land & Waste Containment p+c Pre-requisite: 3D8 useful. IIBM8 4A7 Aircraft Aerodynamics and Design c Pre-requisite: 3B5 useful. IIBM8 4C3 Advanced Functional Materials and Devices p Pre-requisite: 3D2 assumed. IIBM8 4D5 Foundation Engineering p Pre-requisite: 3D2 assumed. IIBM9 4E1 Innovation and Strategic Management of Intellectual c c 4E3 Business Innovation in a Digital Age c 4E4 Management of Technology c 4E6 Accounting and Finance c IBM10 4M3 Spanish c IBM11 4A12 Turbulence and Vortex Dynamics p 4B5 Quantum and Nano-technologies p Pre-requisite: 3B1 assumed; 3A3 useful Amount and Nano-technologies IBM12 4D13 Architectural Engineering c Pre-requisite: 3B5 assumed. IBM12 4D13 Architectural Engineering c Pre-requisites: 3C5, 3C8, 3F2 and 3F3					
IIBM8 4A7 Aircraft Aerodynamics and Design c Pre-requisites: 3A1 and 3A3 assumed IIBM8 4C3 Advanced Functional Materials and Devices p Pre-requisite: 3B5 useful. 4D5 Foundation Engineering p Pre-requisite: 3D2 assumed. IIBM9 4E1 Innovation and Strategic Management of Intellectual c 4E3 Business Innovation in a Digital Age c 4E4 Management of Technology c 4E6 Accounting and Finance c IBM10 4M3 Spanish c IBM11 4A12 Turbulence and Vortex Dynamics p 4M17 Practical Optimization c Pre-requisite: 3M1 assumed; 3A3 use 4M11 Practical Optimization c Pre-requisite: 3B5 assumed. 4B5 Quantum and Nano-technologies p Pre-requisite: 3B5 assumed. IBM12 4D13 Architectural Engineering c Pre-requisites: 3C5, 3C8, 3F2 and 3F2	IIBM7			С	
IIBM8 4C3 Advanced Functional Materials and Devices p Pre-requisite: 3B5 useful. 4D5 Foundation Engineering p Pre-requisite: 3D2 assumed. IIBM9 4E1 Innovation and Strategic Management of Intellectual c c 4E3 Business Innovation in a Digital Age c 4E4 Management of Technology c 4E6 Accounting and Finance c IBM10 4M3 Spanish c IBM11 4A12 Turbulence and Vortex Dynamics p Pre-requisite: 3A1 assumed; 3A3 usef IBM11 4M17 Practical Optimization c Pre-requisite: 3M1 assumed. 4B5 Quantum and Nano-technologies p Pre-requisite: 3D3, 3D4 and 3D8 usef IBM12 4D13 Architectural Engineering c Pre-requisites: 3C5, 3C8, 3F2 and 3F3		4D14	Contaminated Land & Waste Containment	p+c	Pre-requisite: 3D8 useful.
IIBM8 4C3 Advanced Functional Materials and Devices p Pre-requisite: 3B5 useful. 4D5 Foundation Engineering p Pre-requisite: 3D2 assumed. IIBM9 4E1 Innovation and Strategic Management of Intellectual c c 4E3 Business Innovation in a Digital Age c 4E4 Management of Technology c 4E6 Accounting and Finance c IBM10 4M3 Spanish c IBM11 4A12 Turbulence and Vortex Dynamics p Pre-requisite: 3A1 assumed; 3A3 usef IBM11 4M17 Practical Optimization c Pre-requisite: 3M1 assumed. 4B5 Quantum and Nano-technologies p Pre-requisite: 3D3, 3D4 and 3D8 usef IBM12 4D13 Architectural Engineering c Pre-requisites: 3C5, 3C8, 3F2 and 3F3		447	Aircraft Aerodynamics and Design		Pre-requisites: 3A1 and 3A3 assumed
4D5 Foundation Engineering p Pre-requisite: 3D2 assumed. IIBM9 4E1 Innovation and Strategic Management of Intellectual c c 4E3 Business Innovation in a Digital Age c 4E4 Management of Technology c 4E6 Accounting and Finance c IBM10 4M3 Spanish c IBM10 4M3 Spanish c IBM11 4A12 Turbulence and Vortex Dynamics p Pre-requisites: 3A1 assumed; 3A3 use IBM11 4M17 Practical Optimization c Pre-requisite: 3M1 assumed. 4B5 Quantum and Nano-technologies p Pre-requisite: 3B5 assumed. IBM12 4D13 Architectural Engineering c Pre-requisites: 3D3, 3D4 and 3D8 usef IBM12 4M20 Debatice p Pre-requisites: 3C5, 3C8, 3F2 and 3F3	IIBM8				
IIBM9 4E3 Business Innovation in a Digital Age c 4E4 Management of Technology c 4E6 Accounting and Finance c IBM10 4M3 Spanish c IBM10 4M3 Spanish c IBM11 4A12 Turbulence and Vortex Dynamics p Pre-requisites: 3A1 assumed; 3A3 use IBM11 4M17 Practical Optimization c Pre-requisite: 3M1 assumed. 4B5 Quantum and Nano-technologies p Pre-requisite: 3B5 assumed. IBM12 4M13 Architectural Engineering c Pre-requisites: 3D3, 3D4 and 3D8 usef IBM12 4M20 Debatics p Pre-requisites: 3C5, 3C8, 3F2 and 3F3					· ·
IIBM9 4E3 Business Innovation in a Digital Age c 4E4 Management of Technology c 4E6 Accounting and Finance c IBM10 4M3 Spanish c IBM10 4M3 Spanish c IBM11 4A12 Turbulence and Vortex Dynamics p Pre-requisites: 3A1 assumed; 3A3 use IBM11 4M17 Practical Optimization c Pre-requisite: 3M1 assumed. 4B5 Quantum and Nano-technologies p Pre-requisite: 3B5 assumed. IBM12 Architectural Engineering c Pre-requisites: 3D3, 3D4 and 3D8 usef IBM12 Am20 Debatics p Pre-requisites: 3C5, 3C8, 3F2 and 3F3					1
IIBM9 4E4 Management of Technology c 4E6 Accounting and Finance c IBM10 4M3 Spanish c IBM10 4M3 Spanish c IBM11 4A12 Turbulence and Vortex Dynamics p Pre-requisites: 3A1 assumed; 3A3 use IBM11 4M17 Practical Optimization c Pre-requisite: 3M1 assumed. 4B5 Quantum and Nano-technologies p Pre-requisite: 3B5 assumed. IBM12 Architectural Engineering c Pre-requisites: 3C5, 3C8, 3F2 and 3F3					
4E4 Management of rechnology c 4E6 Accounting and Finance c IBM10 4M3 Spanish c IBM10 4M3 Spanish c IBM11 4A12 Turbulence and Vortex Dynamics p IBM11 4M17 Practical Optimization c 4M22 Climate Change Mitigation c Pre-requisite: 3M1 assumed. 4B5 Quantum and Nano-technologies p Pre-requisite: 3B5 assumed. IBM12 4D13 Architectural Engineering c Pre-requisites: 3C5, 3C8, 3F2 and 3F3	IIBM9			_	
IBM10 4M3 Spanish c IBM10 4M3 Spanish c IBM11 4A12 Turbulence and Vortex Dynamics p Pre-requisites: 3A1 assumed; 3A3 use IBM11 4M17 Practical Optimization c Pre-requisite: 3M1 assumed. 4M22 Climate Change Mitigation c Pre-requisite: 3B5 assumed. 4B5 Quantum and Nano-technologies p Pre-requisites: 3D3, 3D4 and 3D8 usef IBM12 4M20 Debatics a Pre-requisites: 3C5, 3C8, 3F2 and 3F2					
IBM11 4A12 Turbulence and Vortex Dynamics p Pre-requisites: 3A1 assumed; 3A3 use IBM11 4M17 Practical Optimization c Pre-requisite: 3M1 assumed. 4M22 Climate Change Mitigation c Pre-requisite: 3B5 assumed. 4B5 Quantum and Nano-technologies p Pre-requisite: 3B5 assumed. IBM12 4D13 Architectural Engineering c Pre-requisites: 3D3, 3D4 and 3D8 usef IBM12 AM20 Debation a Pre-requisites: 3C5, 3C8, 3F2 and 3F3		40		C	
IBM11 4M17 Practical Optimization c Pre-requisite: 3M1 assumed. 4M22 Climate Change Mitigation c	IBM10	4M3	Spanish	С	
IBM11 4M17 Practical Optimization c Pre-requisite: 3M1 assumed. 4M22 Climate Change Mitigation c	IIBM11	1010	Turbulance and Vortex Dynamics	In	Pre-requisites: 301 assumed: 302 useful
IBMIT 4M22 Climate Change Mitigation c 4B5 Quantum and Nano-technologies p Pre-requisite: 3B5 assumed. 4B13 Architectural Engineering c Pre-requisites: 3D3, 3D4 and 3D8 usef IBM12 Anchitectural Engineering c Pre-requisites: 3C5, 3C8, 3F2 and 3F2		41417			
4B5 Quantum and Nano-technologies p Pre-requisite: 3B5 assumed. 4D13 Architectural Engineering c Prerequisites: 3D3, 3D4 and 3D8 usef IBM12 AM20 Debation p					า าอาอานเอเเอ. อพา สรรมเทยน.
4D13 Architectural Engineering c Prerequisites: 3D3, 3D4 and 3D8 usef IBM12 AM20 Debetics Pre-requisites: 3C5, 3C8, 3F2 and 3F3					Pre-requisite: 3B5 assumed.
IBM12 Pre-requisites: 3C5, 3C8, 3F2 and 3F3			· · · ·		· · · ·
	IIBM12		Architectural Engineering	С	Prerequisites: 3D3, 3D4 and 3D8 useful.
		4M20	Robotics	с	Pre-requisites: 3C5, 3C8, 3F2 and 3F3 useful.

IIB Sets Lent Term 2021

Set	Unit	Title	Mode	Notes
	4B13	Electronic Sensors and Instrumentation	p	Pre-requisite: 3B1 assumed.
	4M12	Partial Differential Equations & Variational Methods	p	Shared with IIA.
	4M16	Nuclear Power Engineering	p	Shared with IIA.
	411110	Nuclear Fower Engineering	ΙP	Shared with IIA.
	4B23	Optical Fibre Communication	nic	Pre-requisites: 3B6 and 3F4 useful.
	4D23 4D6		p+c	Pre-requisites: 3D2, 3D4, and 3D7 useful.
	408 4G4	Dynamics in Civil Engineering Biomimetics	p+c	
	464	Diominieucs	С	
	4C15	MEMS: Design	p+c	
IIBL3	4015		p+c	Pre-requisites: 3F1 assumed. 3F3 and 3F7
IIDLS	4F8	Image Processing and Image Coding	р	useful.
	4B24	Radio Frequency Systems	nic	Pre-requisite: 3B1 assumed.
	4C5	Design Case Studies	p+c	Pre-requisites: 4C4 useful.
	4C5 4G3		C	Pre-requisites: 3G2, 3G3 useful
	463	Computational Neuroscience	C	Fre-requisites. 302, 303 userui
_	4A13	Compustion and Engines	In	
	4A13 4D9	Combustion and Engines	p	Droroquioitoo: 2D2 cooumod
IIBL5	409	Offshore Geotechnical Engineering	р	Prerequisites: 3D2 assumed. Pre-requisites: Part I Digital circuits and
	4F14	Computer Systems	p+c	
				computing.
	4D15	Management of Resilient Water Systems	с	
	4015			Pre-requisites: 3F7 assumed. 3F1 and 3F4
	4F5	Advanced Information Theory and Coding	р	useful.
IIBL6			╉────	Borrowed from Chemical Engineering and
	4114	Biosensors and Bioelectronics	с	Biotechnology. Pre-requisite: 3G3 useful.
	4M23	Electricity and Environment (TDE22)		
	411/23	Electricity and Environment (TPE22)	С	
	4C9	Continuum Mechanics	In	Pre-requisite: 3C7 assumed, 3D7 useful.
	409 4F2	Robust and Nonlinear Control	p C	Pre-requisites: 3F2 assumed.
	4M21	Software Engineering and Design		
	411121	Software Engineering and Design	р	
	4C8	Vehicle Dynamics	p+c	Pre-requisite: 3C5 and 3C6 useful.
	418	Medical Physics	р тс р	Borrowed from Physics. Pre-requisite: 3G4
IIBL8	-10			
	4 11	Advanced Fission and Fusion Systems	с	Borrowed from Nuclear Energy MPhil. Pre-
				requisite: 4M16 assumed.
	4l15	Mobile Robot Systems	С	Borrowed from Computer Laboratory.
IIBL9	4E12	Project Management	С	Part IIB Engineering students only.
		1		
	4M1	French	С	
	4M2	German	С	
		T	-	
	4A15	Aeroacoustics	р	Pre-requisites: 3A1 useful.
	4D4	Construction Engineering	С	Pre-requisites: 3D1, 3D2, and 4D16 useful.
	4F3	An Optimisation Based Approach to Control	р	Pre-requisites: 3F1 and 3F2 useful.
IIBL12			_	

I