## Part IIA Modules 2023-2024

The Faculty Board of Engineering give notice that the modules prescribed for examination in 2024, and the mode of examination for each module, will be as listed below. Candidates must offer 10 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.

3A1 3A3 3A5 3A6 <b>Group B: Elec</b> 3B1 3B2 3B3 3B4 3B5 3B6	Fluid Mechanics, and Turbomachinery  Fluid Mechanics I  Fluid Mechanics II  Thermodynamics and Power Generation  Heat and Mass Transfer  Ctrical Engineering  Radio Frequency Electronics  Integrated Digital Electronics  Switch-Mode Electronics	IIAM1&L1 IIAM7 IIAL3	p p p p p	Double module Double module
3A1 3A3 3A5 3A6 <b>Group B: Elec</b> 3B1 3B2 3B3 3B4 3B5 3B6	Fluid Mechanics I Fluid Mechanics II Thermodynamics and Power Generation Heat and Mass Transfer  ctrical Engineering  Radio Frequency Electronics Integrated Digital Electronics Switch-Mode Electronics	IIAM1&L1 IIAM7 IIAL3	p p	
3A3 3A5 3A6 <b>Group B: Elec</b> 3B1 3B2 3B3 3B4 3B5 3B6	Fluid Mechanics II Thermodynamics and Power Generation Heat and Mass Transfer  ctrical Engineering  Radio Frequency Electronics Integrated Digital Electronics Switch-Mode Electronics	IIAM1&L1 IIAM7 IIAL3	p p	
3A5 3A6 <b>Group B: Elec</b> 3B1 3B2 3B3 3B4 3B5 3B6	Thermodynamics and Power Generation Heat and Mass Transfer  ctrical Engineering  Radio Frequency Electronics Integrated Digital Electronics Switch-Mode Electronics	IIAM7 IIAL3	p	Double Module
3A6  Group B: Elect 3B1 3B2 3B3 3B4 3B5 3B6	Heat and Mass Transfer  ctrical Engineering  Radio Frequency Electronics  Integrated Digital Electronics  Switch-Mode Electronics	IIAL3	<del>-</del>	
3B1 3B2 3B3 3B4 3B5 3B6	Radio Frequency Electronics Integrated Digital Electronics Switch-Mode Electronics	IIAM3	Р	i
3B1 3B2 3B3 3B4 3B5 3B6	Radio Frequency Electronics Integrated Digital Electronics Switch-Mode Electronics			<u> </u>
3B2 3B3 3B4 3B5 3B6	Integrated Digital Electronics Switch-Mode Electronics			
3B3 3B4 3B5 3B6	Switch-Mode Electronics		р	
3B4 3B5 3B6		IIAL3	р	
3B5 3B6		IIAM2	р	
3B6	Electric Drive Systems	IIAL2	р	
J	Semiconductor Engineering Photonic Technology	IIAM8 IIAL7	p	
		IIAL7	р	
	chanics, Materials, and Design			
3C1/3P1	Materials Processing and Design (Engineering)	IIAM5	р	Offered by MET as 3P1
3C5	Dynamics	IIAL6	р	
3C6	Vibration	IIAM6	р	
3C7	Mechanics of Solids	IIAM4	р	
3C8	Machine Design	IIAM3	р	
3C9	Fracture Mechanics of Materials and Structures	IIAL5	р	3C7 assumed
Group D: Civ	il, Structural, and Environmental Engineering			
3D1	Geotechnical Engineering I	IIAM1	р	T
3D2	Geotechnical Engineering II	IIAL1	p	3D1 assumed
3D3	Structural Materials and Design	IIAM2	р	
3D4	Structural Analysis and Stability	IIAL2	р	
3D5	Water Engineering	IIAM10	р	
3D7	Finite Element Methods	IIAL4	р	
3D8	Geo-Environmental Engineering	IIAL7	р	
Group E: Mar	nagement and Manufacturing			
3E1	Business Economics	IIAM9	р	
3E2	Marketing	IIAM9	p	
3E3	Modelling Risk	IIAL8	р	
3E6	Organisational Behaviour	IIAM9	р	
3E10	Operations Management for Engineers	IIAL8	р	
3E11	Environmental Sustainability & Business	IIAL8	р	
Group F: Info	rmation Engineering			
3F1	Signals and Systems	IIAM4	ln.	T
3F2	Systems and Control	IIAL5	p p	
3F3	Statistical Signal Processing	IIAM1	р	
3F4	Data Transmission	IIAL6	р	
3F7	Information Theory and Coding	IIAM5	р	
3F8	Inference	IIAL4	p	3F3 assumed
Group G: Bio	engineering		•	•
3G1	Molecular Bioengineering I	IIAM7	In	T
3G2	Mathematical Physiology	IIAW/	p p	+
3G3	Introduction to Neuroscience	IIAL3	р	+
3G4	Medical Imaging and 3-D Computer Graphics	IIAL1	р	
3G5	Biomaterials	IIAM8	р	
	Itidisciplinary modules	1	<u>                                     </u>	
		1114140		Ţ
3M1	Mathematical Methods	IIAL10	p	L
Group S: Mod	dules shared with Part IIB			
4C4	Design Methods	IIAM7	р	Shared module
4D16	Construction Management	IIAM7	р	Shared module
12412				
4M12	Partial Differential Equations and Variational Methods	IIAL9	р	Shared module
4M16	Nuclear Power Engineering	IIAL9	р	Shared module

## Part IIA Sets Michaelmas Term 2022-23

Mode

Notes

Double module

Set

Title

Fluid Mechanics II

Unit

3A3

IIAM1	3D1	Geotechnical Engineering I	p	
	3F3	Statistical Signal Processing	р	3F1 assumed
	3B3	Switch-Mode Electronics	р	
IIAM2	3D3	Structural Materials and Design	p	
	3B1	Radio Frequency Electronics	p	
IIAM3	3C8	Machine Design	p	
		-	<u>'</u>	
IIAM4 IIAM5	3C7 3F1	Mechanics of Solids Signals and Systems	p	
			р	
	3C1	Materials Processing and Design	р	Offered by MET as 3P1
	3F7	Information Theory and Coding	р	
IIAM6	3C5	Dynamics	P	
	3C6	Vibration	p	
	3A5	Thermodynamics and Power Generation	р	
IAM7	3G1	Molecular Bioengineering I	p	
	4D16	Construction Management	р	Shared with IIB
	4C4	Design Methods	р	Shared with IIB
	3A1	Fluid Mechanics I	р	Double module
IAM8	3B5	Semiconductor Engineering	р	
	3G5	Biomaterials	р	
	3E6	Organisational Behaviour	р	
IAM9 (PM	3E1	Business Economics	р	
lectures)	0=0			
	3E2	Marketing	р	
	3E2	Marketing	р	
IAM10 (PM)	3E2 3D5	Marketing  Water Engineering	p p	
IAM10 (PM)		-	<u>'</u>	
IAM10 (PM)		-	p	
		Water Engineering	p	Notes
	3D5	Water Engineering Part IIA Sets Lent Ter	p p 2022-23	Notes Double module
Set	3D5	Water Engineering  Part IIA Sets Lent Ter  Title	p p m 2022-23 Mode	
Set	3D5 Unit 3A3	Water Engineering  Part IIA Sets Lent Ter  Title  Fluid Mechanics II	p p Mode p	Double module
Set	3D5 Unit 3A3 3D2	Part IIA Sets Lent Ter  Title Fluid Mechanics II Geotechnical Engineering II	p m 2022-23 Mode p p	Double module
Set	3D5  Unit 3A3 3D2 3G4	Water Engineering  Part IIA Sets Lent Ter  Title Fluid Mechanics II Geotechnical Engineering II Medical Imaging & 3-D Computer Graphics  Electric Drive Systems	p m 2022-23 Mode p p	Double module
<b>Set</b> IAL1	3D5  Unit 3A3 3D2 3G4  3B4 3D4	Part IIA Sets Lent Ter  Title Fluid Mechanics II Geotechnical Engineering II Medical Imaging & 3-D Computer Graphics  Electric Drive Systems Structural Analysis and Stability	p m 2022-23  Mode p p p	Double module
<b>Set</b> IAL1	3D5  Unit 3A3 3D2 3G4	Water Engineering  Part IIA Sets Lent Ter  Title Fluid Mechanics II Geotechnical Engineering II Medical Imaging & 3-D Computer Graphics  Electric Drive Systems	p m 2022-23  Mode p p p	Double module
Set	3D5  Unit 3A3 3D2 3G4  3B4 3D4 3G3	Part IIA Sets Lent Ter  Title Fluid Mechanics II Geotechnical Engineering II Medical Imaging & 3-D Computer Graphics  Electric Drive Systems Structural Analysis and Stability Introduction to Neuroscience	p m 2022-23  Mode p p p	Double module
Set  IAL1  IAL2	3D5  Unit 3A3 3D2 3G4  3B4 3D4 3G3	Part IIA Sets Lent Ter  Title Fluid Mechanics II Geotechnical Engineering II Medical Imaging & 3-D Computer Graphics  Electric Drive Systems Structural Analysis and Stability Introduction to Neuroscience  Heat and Mass Transfer	p m 2022-23  Mode p p p p p	Double module
Set  IAL1  IAL2	3D5  Unit 3A3 3D2 3G4  3B4 3D4 3G3  3A6 3B2	Part IIA Sets Lent Ter  Title Fluid Mechanics II Geotechnical Engineering II Medical Imaging & 3-D Computer Graphics  Electric Drive Systems Structural Analysis and Stability Introduction to Neuroscience  Heat and Mass Transfer Integrated Digital Electronics	p m 2022-23  Mode p p p p p	Double module
Set  IAL1  IAL2	3D5  Unit 3A3 3D2 3G4  3B4 3D4 3G3	Part IIA Sets Lent Ter  Title Fluid Mechanics II Geotechnical Engineering II Medical Imaging & 3-D Computer Graphics  Electric Drive Systems Structural Analysis and Stability Introduction to Neuroscience  Heat and Mass Transfer	p m 2022-23  Mode p p p p p	Double module
Set  IAL1  IAL2	3D5  Unit 3A3 3D2 3G4  3B4 3D4 3G3  3A6 3B2 3G2	Part IIA Sets Lent Ter  Title Fluid Mechanics II Geotechnical Engineering II Medical Imaging & 3-D Computer Graphics  Electric Drive Systems Structural Analysis and Stability Introduction to Neuroscience  Heat and Mass Transfer Integrated Digital Electronics Mathematical Physiology	P	Double module
Set  IAL1  IAL2	3D5  Unit 3A3 3D2 3G4  3B4 3D4 3G3  3A6 3B2 3G2	Part IIA Sets Lent Ter  Title Fluid Mechanics II Geotechnical Engineering II Medical Imaging & 3-D Computer Graphics  Electric Drive Systems Structural Analysis and Stability Introduction to Neuroscience  Heat and Mass Transfer Integrated Digital Electronics Mathematical Physiology  Finite Element Methods	p m 2022-23  Mode p p p p p p p p p	Double module 3D1 assumed
Set  IAL1  IAL2	3D5  Unit 3A3 3D2 3G4  3B4 3D4 3G3  3A6 3B2 3G2	Part IIA Sets Lent Ter  Title Fluid Mechanics II Geotechnical Engineering II Medical Imaging & 3-D Computer Graphics  Electric Drive Systems Structural Analysis and Stability Introduction to Neuroscience  Heat and Mass Transfer Integrated Digital Electronics Mathematical Physiology	P	Double module
Set  IAL1  IAL2	3D5  Unit 3A3 3D2 3G4  3B4 3D4 3G3  3A6 3B2 3G2  3D7 3F8	Part IIA Sets Lent Ter  Title Fluid Mechanics II Geotechnical Engineering II Medical Imaging & 3-D Computer Graphics  Electric Drive Systems Structural Analysis and Stability Introduction to Neuroscience  Heat and Mass Transfer Integrated Digital Electronics Mathematical Physiology  Finite Element Methods Inference	P	Double module 3D1 assumed  3F3 assumed
IAL1 IAL2 IAL3	3D5  Unit 3A3 3D2 3G4  3B4 3D4 3G3  3A6 3B2 3G2  3D7 3F8	Part IIA Sets Lent Ter  Title Fluid Mechanics II Geotechnical Engineering II Medical Imaging & 3-D Computer Graphics  Electric Drive Systems Structural Analysis and Stability Introduction to Neuroscience  Heat and Mass Transfer Integrated Digital Electronics Mathematical Physiology  Finite Element Methods Inference  Fracture Mechanics of Materials & Structures	P	Double module 3D1 assumed
IAL1 IAL2 IAL3	3D5  Unit 3A3 3D2 3G4  3B4 3D4 3G3  3A6 3B2 3G2  3D7 3F8	Part IIA Sets Lent Ter  Title Fluid Mechanics II Geotechnical Engineering II Medical Imaging & 3-D Computer Graphics  Electric Drive Systems Structural Analysis and Stability Introduction to Neuroscience  Heat and Mass Transfer Integrated Digital Electronics Mathematical Physiology  Finite Element Methods Inference	P	Double module 3D1 assumed  3F3 assumed
IAL1 IAL2 IAL3	3D5  Unit 3A3 3D2 3G4  3B4 3D4 3G3  3A6 3B2 3G2  3D7 3F8	Part IIA Sets Lent Ter  Title Fluid Mechanics II Geotechnical Engineering II Medical Imaging & 3-D Computer Graphics  Electric Drive Systems Structural Analysis and Stability Introduction to Neuroscience  Heat and Mass Transfer Integrated Digital Electronics Mathematical Physiology  Finite Element Methods Inference  Fracture Mechanics of Materials & Structures Systems and Control	P	Double module 3D1 assumed  3F3 assumed
IAL2 IAL3 IAL4	3D5  Unit 3A3 3D2 3G4  3B4 3D4 3G3  3A6 3B2 3G2  3D7 3F8  3C9 3F2	Part IIA Sets Lent Ter  Title Fluid Mechanics II Geotechnical Engineering II Medical Imaging & 3-D Computer Graphics  Electric Drive Systems Structural Analysis and Stability Introduction to Neuroscience  Heat and Mass Transfer Integrated Digital Electronics Mathematical Physiology  Finite Element Methods Inference  Fracture Mechanics of Materials & Structures Systems and Control  Dynamics	P	Double module 3D1 assumed  3F3 assumed  3C7 assumed
IAL2 IAL3 IAL4	3D5  Unit 3A3 3D2 3G4  3B4 3D4 3G3  3A6 3B2 3G2  3D7 3F8  3C9 3F2  3C5 3C6	Part IIA Sets Lent Ter  Title Fluid Mechanics II Geotechnical Engineering II Medical Imaging & 3-D Computer Graphics  Electric Drive Systems Structural Analysis and Stability Introduction to Neuroscience  Heat and Mass Transfer Integrated Digital Electronics Mathematical Physiology  Finite Element Methods Inference  Fracture Mechanics of Materials & Structures Systems and Control  Dynamics Vibration	P	Double module 3D1 assumed  3F3 assumed  3C7 assumed
IAL2 IAL3 IAL4	3D5  Unit 3A3 3D2 3G4  3B4 3D4 3G3  3A6 3B2 3G2  3D7 3F8  3C9 3F2	Part IIA Sets Lent Ter  Title Fluid Mechanics II Geotechnical Engineering II Medical Imaging & 3-D Computer Graphics  Electric Drive Systems Structural Analysis and Stability Introduction to Neuroscience  Heat and Mass Transfer Integrated Digital Electronics Mathematical Physiology  Finite Element Methods Inference  Fracture Mechanics of Materials & Structures Systems and Control  Dynamics	P	Double module 3D1 assumed  3F3 assumed  3C7 assumed
IAL2 IAL3 IAL4	3D5  Unit 3A3 3D2 3G4  3B4 3D4 3G3  3A6 3B2 3G2  3D7 3F8  3C9 3F2  3C5 3C6 3F4	Part IIA Sets Lent Ter  Title Fluid Mechanics II Geotechnical Engineering II Medical Imaging & 3-D Computer Graphics  Electric Drive Systems Structural Analysis and Stability Introduction to Neuroscience  Heat and Mass Transfer Integrated Digital Electronics Mathematical Physiology  Finite Element Methods Inference  Fracture Mechanics of Materials & Structures Systems and Control  Dynamics Vibration Data Transmission	P	Double module 3D1 assumed  3F3 assumed  3C7 assumed  3C5 useful- 3F1 assumed
IAM10 (PM)  Set  IAL1  IAL2  IAL3  IAL4  IAL5	3D5  Unit 3A3 3D2 3G4  3B4 3D4 3G3  3A6 3B2 3G2  3D7 3F8  3C9 3F2  3C5 3C6	Part IIA Sets Lent Ter  Title Fluid Mechanics II Geotechnical Engineering II Medical Imaging & 3-D Computer Graphics  Electric Drive Systems Structural Analysis and Stability Introduction to Neuroscience  Heat and Mass Transfer Integrated Digital Electronics Mathematical Physiology  Finite Element Methods Inference  Fracture Mechanics of Materials & Structures Systems and Control  Dynamics Vibration	P	Double module 3D1 assumed  3F3 assumed  3C7 assumed

	3D8	Environmental Geotechnics	р		
	3E3	Modelling Risk	ln		
IIAL8 (PM lectures)	3E10	Operations Management for engineers	p		
	3E11	Environmental Sustainability & Business	р	р	
	•		•		
IIAL9	4M12	Partial Differential Equations and Variational Methods	р	Shared with IIB.	
	4M16	Nuclear Power Engineering	р	Shared with IIB.	
	-			•	
IIAL10	3M1	Mathematical Methods	р		