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.

Unit	Title	Set	Mode	Notes
Group A: Energy, Fluid Mechanics, and Turbomachinery				
3A1	Fluid Mechanics I	IIAM8&L7	p	Double module
3A3	Fluid Mechanics II	IIAM1&L1	p	Double module
3A5	Thermodynamics and Power Generation	IIAM7	p	
3A6	Heat and Mass Transfer	IIAL3	p	
Group B: Electrical Engineering				
3B1	Radio Frequency Electronics	IIAM3	p	
3B2	Integrated Digital Electronics	IIAL3	p	
3B3	Switch-Mode Electronics	IIAM2	p	
3B4	Electric Drive Systems	IIAL2	p	
3B5	Semiconductor Engineering	IIAM8	p	
3B6	Photonic Technology	IIAL7	p	
Group C: Mechanics, Materials, and Design				
3C1/3P1	Materials Processing and Design (Engineering)	IIAM5	p	Offered by MET as 3P1
3C5	Dynamics	IIAL6	p	
3C6	Vibration	IIAM6	p	
3C7	Mechanics of Solids	IIAM4	p	
3C8	Machine Design	IIAM3	p	
3C9	Fracture Mechanics of Materials and Structures	IIAL5	p	3C7 assumed
Group D: Civil, Structural, and Environmental Engineering				
3D1	Geotechnical Engineering I	IIAM1	p	
3D2	Geotechnical Engineering II	IIAL1	p	3D1 assumed
3D3	Structural Materials and Design	IIAM2	p	
3D4	Structural Analysis and Stability	IIAL2	p	
3D5	Water Engineering	IIAM10	p	
3D7	Finite Element Methods	IIAL4	p	
3D8	Geo-Environmental Engineering	IIAL7	p	
Group E: Management and Manufacturing				
3E1	Business Economics	IIAM9	p	
3E2	Marketing	IIAM9	p	
3E3	Modelling Risk	IIAL8	p	
3E6	Organisational Behaviour	IIAM9	p	
3E10	Operations Management for Engineers	IIAL8	p	
3E11	Environmental Sustainability & Business	IIAL8	p	
Group F: Information Engineering				
3F1	Signals and Systems	IIAM4	p	
3F2	Systems and Control	IIAL5	p	
3F3	Statistical Signal Processing	IIAM1	p	
3F4	Data Transmission	IIAL6	p	
3F7	Information Theory and Coding	IIAM5	p	
3F8	Inference	IIAL4	p	3F3 assumed
Group G: Bioengineering				
3G1	Molecular Bioengineering I	IIAM7	p	
3G2	Mathematical Physiology	IIAL3	p	
3G3	Introduction to Neuroscience	IIAL2	p	
3G4	Medical Imaging and 3-D Computer Graphics	IIAL1	p	
3G5	Biomaterials	IIAM8	p	
Group M: Multidisciplinary modules				
3M1	Mathematical Methods	IIAL10	p	
Group S: Modules shared with Part IIB				
4C4	Design Methods	IIAM7	p	Shared module
4D16	Construction Management	IIAM7	p	Shared module
4M12	Partial Differential Equations and Variational Methods	IIAL9	p	Shared module
4M16	Nuclear Power Engineering	IIAL9	p	Shared module

Set	Unit	Title	Mode	Notes
IIAM1	3A3	Fluid Mechanics II	p	Double module
	3D1	Geotechnical Engineering I	p	
	3F3	Statistical Signal Processing	p	3F1 assumed
IIAM2	3B3	Switch-Mode Electronics	p	
	3D3	Structural Materials and Design	p	
IIAM3	3B1	Radio Frequency Electronics	p	
	3C8	Machine Design	p	
IIAM4	3C7	Mechanics of Solids	p	
	3F1	Signals and Systems	p	
IIAM5	3C1	Materials Processing and Design	p	Offered by MET as 3P1
	3F7	Information Theory and Coding	p	
IIAM6	~~3C5~~	~~Dynamics~~	p	
	3C6	Vibration	p	
IIAM7	3A5	Thermodynamics and Power Generation	p	
	3G1	Molecular Bioengineering I	p	
	4D16	Construction Management	p	Shared with IIB
	4C4	Design Methods	p	Shared with IIB
IIAM8	3A1	Fluid Mechanics I	p	Double module
	3B5	Semiconductor Engineering	p	
	3G5	Biomaterials	p	
IIAM9 (PM lectures)	3E6	Organisational Behaviour	p	
	3E1	Business Economics	p	
	3E2	Marketing	p	
IIAM10 (PM)	3D5	Water Engineering	p	

Part IIA Sets Lent Term 2022-23

Set	Unit	Title	Mode	Notes
IIAL1	3A3	Fluid Mechanics II	p	Double module
	3D2	Geotechnical Engineering II	p	3D1 assumed
	3G4	Medical Imaging & 3-D Computer Graphics	p	
IIAL2	3B4	Electric Drive Systems	p	
	3D4	Structural Analysis and Stability	p	
	3G3	Introduction to Neuroscience	p	
IIAL3	3A6	Heat and Mass Transfer	p	
	3B2	Integrated Digital Electronics	p	
	3G2	Mathematical Physiology	p	
IIAL4	3D7	Finite Element Methods	p	
	3F8	Inference	p	3F3 assumed
IIAL5	3C9	Fracture Mechanics of Materials & Structures	p	3C7 assumed
	3F2	Systems and Control	p	
IIAL6	3C5	Dynamics	p	
	~~3C6~~	~~Vibration~~	p	~~3C5 useful~~
	3F4	Data Transmission	p	3F1 assumed
IIAL7	3A1	Fluid Mechanics I	p	Double module
	3B6	Photonic Technology	p	

	3D8	Environmental Geotechnics	p	

	3E3	Modelling Risk	p	
IIAL8 (PM lectures)	3E10	Operations Management for engineers	p	
	3E11	Environmental Sustainability & Business	p	

	4M12	Partial Differential Equations and Variational Methods	p	Shared with IIB.
IIAL9	4M16	Nuclear Power Engineering	p	Shared with IIB.

IIAL10	3M1	Mathematical Methods	p	