

DEPARTMENT OF MATERIALS

DIVISION OF MATHEMATICAL, PHYSICAL AND LIFE SCIENCES

LECTURE LIST FOR HILARY TERM 2025

Lectures begin on the first possible day after the beginning of Full Term (Sunday, 14 January) unless otherwise stated

Unless otherwise indicated, all lectures begin on the hour and finish at five minutes before the next hour.

No food or drink (except bottled water) is permitted in the lecture theatres.

Timetable for Materials Science

Key to Teaching Venue Abbreviations:

HRLT	Hume-Rothery Lecture Theatre, Hume-Rothery Building
BRLT	Banbury Road Lecture Theatre, 21 Banbury Road
LR3	Lecture Room 3, Thom Building (Eng Sci)
LR8 IEB	Lecture Room 8, Information Engineering Building
ETBCR	ETB Committee Room, Engineering Technology Building
BRCR	Banbury Road Conference Room, 21 Banbury Road
PRMR	Parks Road Meeting Room, 12/13 Parks Road
HRMR	Hume-Rothery Meeting Room, Hume-Rothery Building
HBTL	Holder Building Teaching Labs, Holder Building
HRF	Hume-Rothery Foyer, Hume-Rothery Building
RR	Rex Richards Room 40.08, Rex Richards Building

Subject	Lecturer	Time	Place
FIRST YEAR			
Practical Class Meeting	Prof. P.D. Nellist	M. 10 (wk 1)	HRLT
Practical Classes	Various staff	Th. F. 2-5 (wks 1-8)	HBTL
Computing for Materials Science	Prof. J.R. Yates/ Dr Z Goodwin	T. 9-12 (wks 2-3)	RR/ 21 BR CR
Engineering Drawing Classes	Ms B. Hughes	F. 2-5 Group B wks 1&3, Group A wks 2&4)	Engineering Design Office, ETB
Crystallography Classes	Dr A. Mostaed & Dr A.A. Sheader	T. 9-12 (wks 4,6,8)	LR3 Thom Bldg
Looking to the Future: Career Planning	Dr A. Evans (OUCaS)	tbc	HRLT
Prelims Examination Briefing	Prof. T.J. Marrow	W. 10 (wk 8)	HRLT
Materials Science 1: Physical Foundations of Materials			
Electromagnetic Properties and Devices	Prof. S.C. Speller & Dr C.S. Allen	M. W. Th. F. 11 (wk 1) M. Th. F. 11 (wk 2) M. Th. F. 11 (wk 3) W. 9, F. 11 (wk 4)	HRLT
Random Processes & Statistical Physics	Prof. P.D. Nellist	M. W. Th. 11 (wks 4,6) Th. F.11(wk 5)	HRLT
Wave Mechanics, Quantum Theory and Bonding	Prof. R.J. Nicholls & Dr F. Fedele	Th. F. 12 (wks 4,6) Th. 12 (wk 7) F. 12 (wk 7) M. W. 12 (wk 8)	HRLT BRLT HRLT
Materials Science 2: Structure and Mechanical Properties of Materials			
Defects in Crystals	Prof. M.R. Castell	M. 9 (wks, 1) W. Th. F. 12 (wks 1,3) M. 12 (wk 3)	HRLT
Structures of Crystalline and Glassy Materials	Prof. M.L. Galano Prof. S. Islam	W.11 (wk 3) M. W. 12 (wk 4) M. Th. 12 (wk 5) M.11 (wk 6)	HRLT
Materials Science 3: Transforming Materials			
Electrochemistry	Prof. M. Pasta	M. W. Th. 9 (wks 6-7) F. 9 (wk 6) F. 9 (wk 7)	HRLT BRLT
Mathematics for Materials Science			
Taylor Series and Limits	Dr A.A. Sheader	W. Th. F. 9 (wk 1)	HRLT
Integration & Complex Numbers	Dr. K. Dey	M. Th. F. 9 (wks 2-4)	HRLT
Ordinary Differential Equations	Dr A.A. Sheader	M. Th. F. 9 (wk 5) W. 12 (wk 6) M. W. 12 (wk 7)	HRLT

Subject	Lecturer	Time	Place
SECOND YEAR			
GP1: Lifecycle, Processing & Engineering of Materials			
Materials End-of-Life	Prof. H.E. Assender & Prof. S. Lozano-Perez	W, 10, Th. 10 (wks 1-4) F. 12 (wks 1-2) M. 11 (wks 3-4)	BRLT
GP2: Electronic Properties of Materials			
Semiconductor Materials and Devices	Prof. R.S. Bonilla	Th. 12 (wks 4-6) Th. 11 (wk 7) <i>Recommended view time of online lectures</i> W, 12 (wk 4-6) F. 12 (wk 4-6)	BRLT HRLT
GP3: Mechanical Properties of Materials			
Plastic Deformation of Materials	Dr E. Liotti	T. W. 9 (wks 1-4) F. 9 (wks 1-2)	BRLT
Structural Failure of Materials	Prof. D.E.J. Armstrong & Prof. T.J. Marrow	M. 9 (wks 3-5) Th. F. 9 (wks 3-4) Th. 9 (wk 5)	BRLT
GP4: Structure & Thermodynamics of Materials			
Structural & Compositional Characterisation of Materials I	Prof. S. Lozano-Perez & Prof. N. Grobert	T. 9, W. 11, Th. 10 (wks 5-6) T. 9, W. 11 (wk 7)	BRLT HRLT
Other Lectures			
Entrepreneurship/ Business Plan (Lecture)	Dr S.M. Wilkinson	F. 11 (wks 1-4,6-7) T. 11 (wk 8)	BRLT BRLT BRLT
Entrepreneurship/ Business Plan (Lecture)	S.P. Newbury	Recommended view time of online lectures F. 11 (wk 5)	
Entrepreneurship/ Business Plan (Project Clinic)	Dr S.M. Wilkinson	ONLINE - Th. 2-4 (wk 3) 15 mins per group between 2pm and 4pm (to sign up in advance)	
Entrepreneurship/ Business Plan (Feedback Clinic)	Dr S.M. Wilkinson	ONLINE - F. 2-4 (wk 7) 15 mins per group between 2pm and 4pm (to sign up in advance)	
Practical Class Meeting	Prof. P.D. Nellist	M. 10:30 (wk 1)	BRLT
Industrial Visit	Prof. J.R. Yates	tbc	HRF
Practical Classes	Various staff	M. T. W. 2-5 (wks 1-8)	HBTL
Tata Steel Industrial Lecture, Prize-giving & Lunch	Dr E. Liotti & Tata Steel Representative	tbc	tbc
Poster Competition	Prof. T.J. Marrow & Prof. D.E.J. Armstrong	F. 4-6 (wk 1)	IEB Atrium
Supplementary Subjects			
History and Philosophy of Science: The Origins of Science	Dr S. Allen & Prof. R. Iliffe	M. 12 (wks 1-8) See Canvas for details	tbc
Quantum Chemistry	Prof. W. Barford & Prof. J.E. McGrady & Prof. S.R. Mackenzie & Prof. D.E. Manolopoulos	T. F. 11 (wks 1-7)	Physical and Theoretical Chemistry Laboratory

Subject	Lecturer	Time	Place
THIRD YEAR			
¹ Atomistic Modelling (two-week module)	Dr C.E. Patrick & Prof. J.R. Yates	M-F. 9-5 (wks 1-2)	RR
¹ Advanced Characterisation of Materials (two-week module)	Prof. A.J. Wilkinson, Prof. M.L. Galano, Prof. N. Grobert & others	M-F. 9-5 (wks 1-2)	Lectures – Practical work – location varied
See timetable issued by module organisers for precise details and locations			
Hilary Term Options (OP2) Lectures			
Advanced Polymers	Dr M. Forghani	T. 11 (wks 3,6-7) T. 11 (wks 4-5) Th. 12 (wk 3) F. 10 (wks 3-6) W. 9 (wk 5) Th. 11 (wk 6)	HRLT BRLT BRLT LR8
Quantum Technology	Prof. J.M. Smith	Th. 12 (wks 4-7) F. 9 (wks 4-5) M. 12 (wk 5) W. 10 (wks 6,8) F. 10 (wk 7) M. 11 (wk 7) M.11 (wk 8)	LR8 HRLT LR8
Enabling Nanotechnology: From Materials to Devices	Dr N. Farmakidis	M. 12, W. 9 (wks 3-4,6) T. 12 (wks 3, 6-7) T. 10 (wk 4) W. 12, Th. 9 (wk 7)	LR8 HRLT BRLT LR8
Materials for Nuclear Systems	Prof. T.J. Marrow, Prof. D.E.J. Armstrong & Prof. S. Lozano-Perez	W. 12 (wks 3-5) Th. 10 (wks 3-4) F. 9 (wks 3, 6-7) T. 4 (wk 5) M. 9 (wks 6-8)	LR8 BRLT
Energy Materials	Prof. M. Pasta, Prof. M.S. Islam & Prof. R.S. Weatherup	M. 9, W. 10, F. 12 (wks 3-5) W. 12, F. 12 (wk 6) M. 10 (wk 7)	LR8 LR8 HRLT
Options Classes			
Michaelmas Term Options (OP1) Classes¹			
¹ Materials & Devices for Optics & Optoelectronics	Class Lecturer		
Class 1 (Workshop)	Prof. A.A.R. Watt	M. 11-1 (wk 2)	BRLT
Class 2	Prof. A.A.R. Watt	T. 10, W. 10, Th. 2 (wk 2)	ETBCR
Class 3	Prof. A.A.R. Watt	W. 2, Th. 2, F. 2 (wk 3)	ETBCR
¹ Magnetic and Superconducting Materials	Class Lecturer		
Class 2	Dr M. Słota	M. 2, F. 2 (wk 2) W. 3 (wk 2)	ETBCR BRCR
Biomaterials	Class Lecturer		
Class 3	Prof. J. Czernuszka	<i>tbc</i> (wk 2 HT)	

Subject	Lecturer	Time	Place
¹ Prediction of Materials Properties	Class Lecturer		
Class 3	Dr C.E. Patrick	M. 9, Th. 11 (<i>wk 2</i>) T. 2 (<i>wk 2</i>)	BRCR ETBCR
¹ Microstructural Control in Engineering Alloys	Class Lecturer		
Class 2	Prof. K.A.Q. O'Reilly & Dr E. Liotti	M. 4, T. 10, Th. 9 (<i>wk 2</i>)	BRCR
Hilary Term Options (OP2) Classes ¹			
¹ Advanced Polymers	Class Lecturer		
Class 1	Dr M. Forghani	M. 4, T. 2, Th. 4 (<i>wk 6</i>)	ETBCR
Class 2	Dr M. Forghani	T. 2, Th. 4, F. 2 (<i>wk 7</i>)	ETBCR
Class 3	Dr M. Forghani	Th. 9, Th. 4, F. 2 (<i>wk 8</i>)	ETBCR
¹ Quantum Technology	Class Lecturer		
Class 1	Prof. J.M. Smith	W. 4, Th. 4, F. 2 (<i>wk 7</i>)	BRCR
Class 2	Prof. J.M. Smith	T. 2 (<i>wk 8</i>) Th. 2, F. 4 (<i>wk 8</i>)	ETBCR BRCR
Class 3	Prof. J.M. Smith	<i>tbc</i> (TT <i>wk1</i>)	<i>tbc</i>
¹ Enabling Nanotechnology: From Materials to Devices	Class Lecturer		
Class 1	Prof. H. Bhaskaran	M. 2-5 (<i>wk 7</i>)	ETBCR
Class 2	Prof. H. Bhaskaran	<i>tbc</i> (TT <i>wk1</i>)	ETBCR
¹ Materials for Nuclear Systems	Class Lecturer		
Class 1	Prof. T.J. Marrow	T. 4, Th. 2, F. 4 (<i>wk 6</i>)	BRCR
Class 2	Prof. D.E.J. Armstrong	<i>tbc</i> (<i>wk 1 TT</i>)	BRCR
Class 3	Prof. S. Lozano-Perez	<i>tbc</i> (<i>wk 1 TT</i>)	<i>tbc</i>
¹ Energy Materials	Class Lecturer		
Class 1	Prof. M. Pasta	T. 4, Th. 2, F. 2 (<i>wk 6</i>)	ETBCR
Class 2	Prof. M.S. Islam	W. 4, Th. 2, F. 4 (<i>wk 7</i>)	ETBCR
Class 3	Prof. R.S. Weatherup	T. 9, W. 11, Th. 2 (<i>wk 8</i>)	ETBCR
Other Lectures			
Part II Open Day	Prof. T.J. Marrow & Prof. J.T. Czernuszka	W. 2-5 (<i>wk 6</i>)	BRLT
DPhil Poster Competition	Dr A.O. Taylor	W. 4.30-6.30 (<i>wk 6</i>)	IEB Atrium
FHS Examination Briefing	Prof. T.J. Marrow	F. 11 (<i>wk 8</i>)	HRLT
Industrial Visit	Prof. J.R. Yates	<i>tbc</i>	HRF
FOURTH YEAR			
Other Lectures			
¹ Writing Skills, Plagiarism, Laboratory Notebooks, IPR & Patents	Prof. H.E. Assender & Dr P.J. Warren	F. 2-5 (<i>wk 3</i>)	HRLT
Ethics & sustainability Workshop	S.P. Newbury & Others	T. 9.30-5, W. 9.30-3.30 (<i>wk 6</i>)	HRMR

Subject	Lecturer	Time	Place
Presentation Skills: PowerPoint, Modern A/V Technology, PPT for Posters	Mr D. Baker (IT Services) & Dr A.O. Taylor	M. T. 1.30-4.30 (wk 2)	IT Services
Practical Tips on Delivering a Research Talk (recording)	Dr A.O. Taylor	M. 3.30 (wk 5)	Online
DPHil Poster Competition	Dr A. O. Taylor	W. 4.30-6.30 (wk 6)	IEB Atrium
POSTGRADUATES			
Please also see the Researcher Training area on the MPLS website:			
https://www.mpls.ox.ac.uk/training/pgr/PGR			
Postgraduate training			
³ Hydrofluoric Acid Safety		tbc	
³ Safe Handling of Compressed Gas Cylinders		tbc	
Writing Skills, Plagiarism, Laboratory Notebooks, IPR & Patents	Prof. H.E. Assender & Dr P.J. Warren	F. 2-5 (wk 3)	HRLT
Teaching Skills: Tutoring Materials Science	Dr C.E. Patrick	M. 2-5 (wk 3)	BRCR
Presentation Skills: PowerPoint, Modern A/V Technology, PPT for Posters	Mr D. Baker (IT Services) & Dr A.O Taylor	M. T. 1.30-4.30 (wk 2)	IT Services
Practical Tips on Delivering a Research Talk (recording)	Dr A.O. Taylor	M. 3.30 (wk 5)	Online
Poster Competition	Dr A.O. Taylor	W. 4.30-6.30 (wk 6)	IEB Atrium
2 nd Year DPhil Talks	Dr A.O. Taylor + All Academic Staff	M.T. W. Th. 10-6 (wk 7) F 10-6 (WK 7)	BRLT HRLT
Academic Writing (for Overseas students)	John Slocombe	T 10-12 & 1-3 (wk 9) W 10-12 & 1-3 (wk 9) Th 10-12 (wk 9)	12 Woodstock Road
Postgraduate lecture courses			
Spectroscopy with (S)TEM	Dr A Mostaed, Prof. R.J. Nicholls & Prof. S. Lozano-Perez	W.2, F. 10 (wks 1-3) Th. 11 (wks 1-2)	BRLT
Imaging and Diffraction in (S)TEM	Dr J.S. Kim & Dr N.P. Young	M. 10, T. 12 (wks 2,4,5) T. 12 (wk 3) F.12 (wk 2)	BRLT
²Hilary Term Options (OP2) Lectures	See HT Third Year, above		
Research colloquia			
Materials Colloquia	Various	Th. 3:30-5pm (wks 1,3,5,8)	HRLT
Modelling Seminars	Various	T. 2 (wk 6) Others tbc	HRLT

¹ Students attend one class in each set and need to register for a specific class – details on how to do this are in the Option Course Synopsis and on Canvas.

²This course is also offered to undergraduates as a 3rd year option. All postgraduates are welcome to take the lecture course (but are not able to attend the classes). They may select it as one of the two assessed courses in the first year provided they have not already taken the course as an undergraduate.

³ Contact Jen Scott for details and an invitation: dso@materials.ox.ac.uk

UNDERGRADUATE TEACHING LAB PRACTICAL SCHEDULES FOR HILARY TERM 2025

Senior Demonstrators and their Deputies are reminded that they are required to be in the Department on the days their practicals are scheduled

HT Wk	YEAR 1 (Thur, Fri)
1 2	1P5, Bubble Raft (JMS , SCB)
3 4	1P6, Thermal Analysis (KM , KAQOR)
5 6	1P7, Polymers – Molecular Weight Effects (NG , JMS)
7 8	1P8, Electrode Potentials (Y Sun , MP)

HT Wk	YEAR 2 (Mon, Tue, Wed)
1 2	2P5, Mechanical Properties of Polymers (T Barthelay , AARW)
3 4	2P6, Dislocations & Plasticity (EL , JTC)
5 6	2P7, Corrosion (C Barker , SLP)
7 8	2P8, Diffusion (TJM , CRMG)