

DEPARTMENT OF MATERIALS

DIVISION OF MATHEMATICAL, PHYSICAL AND LIFE SCIENCES

Lecture List for Michaelmas Term 2024

Lectures begin on the first possible day after the beginning of Full Term (Sunday, 15 October) unless otherwise stated

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
LR8 IEB	Lecture Room 8, Information Engineering Building
ETBCR	ETB Committee Room, Engineering Technology Building
BRCR	Banbury Road Conference Room, 21 Banbury 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
LR3	Lecture Room 3, Thom Building, Engineering Science

Subject	Lecturer	Time	Place
FIRST YEAR			
Induction Course	Prof. T.J. Marrow, Ms P.J. Moss & others	F. 1.15-5.00 (<i>wk 0</i>)	HRLT
Introduction to Prelims Programme	Prof. T.J. Marrow	M. 12 (<i>wk 1</i>)	HRLT
Introduction to Maths and Computing for Materials Science	Prof. S.C. Benjamin	M. 9 (<i>wk 1</i>)	HRLT
Introduction to Practicals	Prof. P. Nellist	M. 11 (<i>wk 1</i>)	HRLT
Introduction to Computing	Dr P.J. Warren	T.W. Th. F. 2-5 (<i>wk 1</i>)	HBTL
Practical Classes	Various staff	Th. F. 2-5 (<i>wks 2-8</i>)	HBTL
Teaching, Study Skills & Learning Development	Prof. T.J. Marrow	Th. 12 (<i>wk 1</i>)	HRLT
The Institute of Materials - Benefits of Student Membership	J Graham – Institute of Materials	F. 11 (<i>wk 3</i>)	HRLT
Workshop on (i) Writing a Full Report on a Practical and (ii) Keeping a Good Laboratory Notebook	Prof. P. Nellist	T.9-10:30 (<i>wk 2</i>)	HRLT
Introduction to Errors in Measurement	Prof. J.M. Smith	T. W. 12 (<i>wk 1</i>)	HRLT
Crystal Model Make & Keep	Prof. M.R. Castell	<i>Recommended view time of online lectures</i> T. 9.00-10.30 (<i>wk 3</i>)	
Crystallography Classes	Prof S. Islam + Dr A.A. Sheader + Dr A Mostaed	T. 9-12 (<i>wks 4,6,8</i>)	LR3 Thom Building
Computing for Materials Science MATLAB Classes	Prof. J.R. Yates	T. 9-12 (<i>wks 5,7</i>)	RR and BRCR
Summer Placements Briefing	Prof J Marrow	M. 12 (<i>wk 4</i>)	HRLT
Materials Science 1: Physical Foundations of Materials			
The Study of Crystalline Materials by Diffraction	Prof. A.A.R. Watt	T. W. Th. F. 11 (<i>wk 1</i>) M. W. Th. F. 11 (<i>wk 2</i>)	HRLT
Materials Science 2: Structure and Mechanical Properties of Materials			
Elastic Deformation	Prof. A.J. Wilkinson	M. W. F. 12 (<i>wks 2-3</i>) T. 11 (<i>wks 2-3</i>)	HRLT
Structures of Crystalline and Glassy Materials	Prof M.L. Galano + Prof S. Islam	M. W. Th. F. 12 (<i>wks 5-6</i>)	HRLT
Materials Science 3: Transforming Materials			
Thermodynamics	Dr. J. Aspinall	M. Th. F. 9 (<i>wk 3</i>) W. 10 (<i>wk 3</i>) M. W. Th. F. 9 (<i>wk 4</i>)	HRLT
Microstructure & Processing of Materials I	Prof K. Marquardt	M. 9 (<i>wks 5,7-8</i>) F. 9 (<i>wks 5-7</i>) W. Th. 9 (<i>wk 7</i>)	HRLT

Subject	Lecturer	Time	Place
Introduction to Nanomaterials	Prof. N. Grobert	Th. F. 10 (wks ,7) W. Th. 9 (wks 5-6) M. 9 (wk 6) M. 10 (wk 5)	HRLT
Mathematics for Materials Science			
Ordinary and Partial Differentiation	Dr E. Liberti	<i>Recommended view time of online lectures</i> T. W. Th. 9 (wk 1) M. W. Th. 9 (wk 2) T. 12 (wk 2)	
		<i>Live Q&A workshop</i> F. 12 (wk 1) Th. 10 (wk 2)	HRLT
Vectors & Matrices	Prof. S.C. Benjamin	<i>Recommended view time of online lectures</i> M. 11 (wks 3,4,6) W. 11 (wks 3-6) Th. 11 (wks 3,5-6) Th. 10 (wk 4)	
		<i>Live Q&A workshop</i> Th. 12 (wk 4) F. 11 (wks 5-6)	HRLT

SECOND YEAR			
GP1: Lifecycle, Processing & Engineering of Materials			
Selection & Production of Engineering Materials I	Prof. H.E. Assender & Prof. M.L. Galano	Th. 10 (wk 1) W. 12, Th. 10 F 10 (wk 2)	BRLT
GP2: Electronic Properties of Materials			
Electronic Structure of Materials	Dr C.E. Patrick	M. 12 (wks 1-5) Th. 12 (wks 1, 3-4) F. 12 (wks 1-4)	BRLT
GP3: Mechanical Properties of Materials			
Elastic Deformation of Materials	Prof. A. Wilkinson & Dr T. Pirzada	M. W. 9 (wks 4-7) Th. 9 (wks 5,7)	BRLT
GP4: Structure & Thermodynamics of Materials			

Subject	Lecturer	Time	Place
Statistical Mechanics and Thermal Properties	Dr A. Poletayev	Th. F. 12 (wks 5,7) M. 12 (wks 6-7) W. F. 12 (wk 6)	BRLT
Phase Transformations	Prof. C.R.M. Grovenor	T. 10 (wks 2-5,7) W. 10 (wks 2-3,5,7) Th. 9 (wk 2) Th. 10 (wks 3-6) M. 10 (wk 4) F. 10 (wk 7)	BRLT
Other Lectures			
Introduction to the Part I Materials Programme	Prof. T.J. Marrow	M. 10 (wk 1)	BRLT
Introduction to Practicals	Prof. P. Nellist	M. 9.00 (wk 1)	BRLT
Mathematics – Partial Differential Equations & Fourier Series, and Tensors	Prof S.C. Benjamin + Prof. P. Nellist	T. F. 9 (wks 1-6)	BRLT
Entrepreneurship/Business Plan – workshop on 'Teams'	Dr E. Williams	F. 2–4 (wk 3)	Via Zoom
Entrepreneurship: Business plan briefing	Dr S.M. Wilkinson	Th. 2–3.30 (wk 7)	BRLT
Entrepreneurship (Understanding Intellectual Property)	Enterprising Oxford		
Entrepreneurship / Business Plan (Workshop on 'Finance' & 'The Business Model Canvas')	Mr S.P. Newbury (Williams)		
Introduction to Industrial Visits	Prof. J. Yates	<i>tbc</i>	BRLT
Practical Classes	Various staff	M. T. W. 2-5 (wks 1-8)	HBTL
Industrial Visit	Prof. J. Yates	Th. OR F. 1-6 (wk 4) AND/OR Th. OR F. 1-6 (wk 5)	HRF
Poster presentation skills workshop	Poster presentation skills workshop	<i>tbc</i>	<i>tbc</i>
Summer Placements Briefing	Prof J Marrow	M. 12 (wk 4)	HRLT
Supplementary Subjects			
² History and Philosophy of Science: The Origins of Science	Prof R. Iliffe & Dr S. Allen	T. 12 (wks 1-8)	Lecture Theatre History Faculty, George Street
^{1,2} Quantum Chemistry	Prof D.E. Manolopoulos, Prof S. R. Mackenzie, Prof J.E. Mc Grady & Dr W. Barford	T. F. 11 (wks 2-8) Wk 1 W 11Am Wk 2 Wd 11	Physical and Theoretical Chemistry Laboratory
THIRD YEAR			
Options Paper 1			

Subject	Lecturer	Time	Place
² Materials & Devices for Optics & Optoelectronics	Prof. A.A.R. Watt	M. 10, Th. 9 (<i>wk 4</i>) W. 12 (<i>wk 4</i>) M. 10 (<i>wk 5</i>) T. 12 (<i>wk 7</i>) M. 10, W. 12, Th. 9 (<i>wks 7-8</i>) T. 9 (<i>wk 8</i>)	LR8 HRLT LR8
² Prediction of Materials Properties	Dr C.E. Patrick	W. 11, Th. 9, F. 10 (<i>wk 3</i>) T. 11 (<i>wks 4-5,7-</i>) W. 11 (<i>wks 4-5,7-8</i>) M. 12 (<i>wk 8</i>) T. 12(<i>wk 8</i>)	LR8 HRLT LR8
² Magnetic and Superconducting Materials	Prof. S.C. Speller & Dr. M. Slota	M. 9, W. 9, F. 10 (<i>wks 4-5,7</i>) T. 9 (<i>wks 4-5</i>) Th. 9 (<i>wk 5</i>)	LR8
² Microstructural Control in Engineering Alloys	Prof. K.A.Q. O'Reilly & Dr E. Liotti	W. 12, Th. 10, F. 12 (<i>wk 3</i>) M. 12, Th. 10, F. 12 (<i>wks 4-5,7</i>)	LR8
^{2,3} Biomaterials	Prof J Czernuska	W. 9 (<i>wk 3</i>) Th. 12, F. 9 (<i>wk 7</i>) T. 12 (<i>wks 4-5,</i>) T. 10 (<i>wk 7</i>) Th. 12, F.9 (<i>wks 3-5</i>)	LR8
Options Classes			
^{2,3} Materials & Devices for Optics & Optoelectronics	Class Lecturer		
Class 1	Prof. A.A.R. Watt	W. 2, Th. 2, F. 2 (<i>wk 7</i>)	ETBCR
Class 2	Prof. A.A.R. Watt	tbc (<i>wk 2 HT</i>)	tbc
Class 3	Prof. A.A.R. Watt	tbc (<i>wk 3 HT</i>)	tbc
^{2,3} Prediction of Materials Properties	Class Lecturer		
Class 1	Dr C.E. Patrick	M. 3, F. 4, Th. 3 (<i>wk 7</i>)	BRCR
Class 2	Dr C.E. Patrick	F. 4, W. 2, Th. 2 (<i>wk 8</i>)	BRCR
Class 3	Dr C.E. Patrick	tbc (<i>wk 2 HT</i>)	
^{2,3} Magnetic & Superconducting Materials	Class Lecturer		
Class 1	Petr Zagura	T. 2, Th. 11, F. 2 (<i>wk 8</i>)	ETBCR
Class 2	Dr M. Slota	tbc (<i>wk 2 HT</i>)	
² Biomaterials	Class Lecturer		
Class 1	Prof. J. Czernuska	M. 3, T. 2, W. 2 (<i>wk 7</i>)	BRLT
Class 2	Prof. J. Czernuska	T. 10, Th. 4, F. 2 (<i>wk 8</i>)	BRLT
Class 3	Prof. J. Czernuska	tbc (<i>wk 2 HT</i>)	tbc
^{2,3} Microstructural Control in Engineering Alloys	Class Lecturer		
Class 1	Prof K.A.Q. O'Reilly & Dr E. Liotti	F. 2 (<i>wk 7</i>) T. 10, Th. 4 (<i>wk 8</i>)	BRCR
Class 2	Prof. K.A.Q. O'Reilly & Dr E. Liotti	HT Week 2	tbc
Other Lectures			

Subject	Lecturer	Time	Place
Briefing for Characterisation/Modelling Courses	Prof A. Wilkinson & Dr. C. Patrick	W. 2.00 (wk 5)	HRLT
Introduction to Modelling in Materials	Prof J.R. Yates + Prof R. Drautz + Dr E Demir	M-F 9-5 (wk 6) Detailed schedule to be circulated in advance	am LR8/HRLT pm RR
Introduction to Team Design Project	Prof K. O. Reilly	M. 9.30-10.30 (wk 1)	LR8
TDP Workshop on Markets and Market Disruptors	S.P. Newbury	T. 2 (wk 1)	HRLT (Teams)
Team Design Project Presentations	2x Examiners	F. 1-6 (wk 3)	ETBCR
External Part II Project Briefing	Prof. J.T. Czernuszka	M. 2 (wk 4)	BRLT
Industrial Visit	Prof. J. Yates	Th. OR F. 1-6 (wk 4) AND/OR Th. OR F. 1-6 (wk 5)	HRF
'Supercollection' Feedback GP1/2	Various	T. 2-4 (wk 4)	BRLT
'Supercollection' Feedback GP3/4	Various	W. 2-4 (wk 4)	BRLT
Summer Placements Briefing	Prof J Marrow	M. 12 (wk 4)	HRLT

FOURTH YEAR			
Part II Induction Course	Prof. J.T. Czernuszka & others	M. 9.30 – 1.30 (wk -3)	HRLT
Part II Project Management	Prof. J.T. Czernuszka & others	Th. 1.30 – 5 (wk -3)	HRLT
Workshops on Ethics & Sustainability, in the context of Part II	Prof L. Brimacombe & Dr S. Job (coordinated by Mr S.P. Newbury)	T. 1.30 - 5 (wk 5)	HRLT
Workshop on Engineering/Scientific Context in respect of Part II Projects	Prof. R.C. Reed	M. 10 (wk 7)	HRLT
DPhil Open Day	Dr A.O. Taylor & HoD	W. 2.30-4 (wk 3)	BRCR
Information Skills & Managing Your References	R. Scanlon (RSL)	Th. 10 (wk -1)	HRLT
Careers and Networking Evening with Alumni (for Yr 3+ postgraduates, post-doctoral researchers, & Part II students)	Dr A.O. Taylor & others	F. 4-6.30 (wk 1)	HB Café
The OU Careers Service – Active Job Hunting	Dr A. Evans	T. 1-2 (wk 2)	HRLT
Industrial Visit	Prof. J Yates	Th OR F. 1-6 (wk 4) AND/OR Th. OR 1-6 (wk 5) tbc	HRF
LabVIEW workshop	Prof. A.A.R. Watt	tbc	HBTL
POSTGRADUATES			

Subject	Lecturer	Time	Place
Please also see the Researcher Training area on the MPLS website:			
https://www.mpls.ox.ac.uk/training/pgr/PGR			
Postgraduate training			
Induction course for Postgraduate students	Dr A.O. Taylor & others	M. T. 9-5 (<i>wk 0</i>)	HRLT
Safety (Compulsory for all new research workers)	Diana Passmore & Daniel DeBrincat	T. 10 (<i>wk 1</i>)	HRLT
⁵ Hydrofluoric Acid Safety	tbc	<i>tbc</i>	Via Teams
⁵ Safe Handling of Compressed Gas Cylinders	tbc	<i>tbc</i>	Via Teams
OU Introduction to Laser Safety	University Safety Office & Dept of Physics	<i>tbc</i>	HRLT
The OU Careers Service – Active Job Hunting	Abbey Evans	T. 1-2 (<i>wk 2</i>)	HRLT
Looking to the Future – What Do Employers Seek? (for 1 st year postgraduates)	tbc, Dr A.O. Taylor	F. 3-4.30 (<i>wk 5</i>)	HRLT
Careers and Networking Evening with Alumni (for Yr 3+ postgraduates, post-doctoral researchers, & Part II students)	Dr A.O. Taylor & others	F. 4-6.30 (<i>wk 1</i>)	HB Café
Introductory Meeting with Departmental Advisors	Dept Advisors	W. 11-11.30 (<i>wk 7</i>)	BRCR
Project Management	Dr P.D. Warren (ex NSG) & Dr A.O. Taylor	F. 12-1 (<i>wk 4</i>) F. 2-4 (<i>wk 4</i>)	HRLT HRLT
The Institute of Materials – Benefits of Student Membership	Jaime Graham	F.11 (<i>wk 3</i>)	HRLT
Owning a successful DPhil	JCCG	<i>tbc</i>	<i>tbc</i>
X-ray Diffractometry	Prof. S.C. Speller	<i>Recommended view time of online lectures</i> M. 10 (<i>wks 3-4</i>)	
Optical Microscopy	Prof. P.D. Nellist	M. 2.30-4.30 (<i>wk 2</i>)	HRLT
Patent Literature	RSL	Th. Wk 2. 10	RSL
X ray diffractometry	Prof S.C. Speller (Recording)		
Teaching Skills: Tutoring Maths Classes	Prof. S.C. Benjamin	F. 2-5 (<i>wk 1</i>)	ETBCR
Teaching Skills: Tutoring Materials Science	tbc	Th. 2-5 (<i>wk 2</i>) <i>tbc</i>	<i>tbc</i>
Teaching Skills: Delivering a UG Lecture Course	Prof. T.J. Marrow	W. 2-5 (<i>wk 1</i>)	BRCR
Teaching Skills: Junior Demonstrating in the Materials Teaching Lab	Prof.P. Nellist & D.R. Passmore	F. 11.30-1 (<i>wk 6</i>)	ETBCR
Information Skills	R. Scanlon, RSL	M. 10 (<i>wk 2</i>)	HRLT
LabVIEW workshop	Prof. A.A.R. Watt	<i>tbc</i>	HBTL
Postgraduate lecture courses			
Foundation Topics for Electron Microscopy	Dr N.P. Young, Dr G.M. Hughes + Prof P.D. Nellist	T. 11 (<i>wks 3-4</i>) W. 11, Th. 2 (<i>wks 3-5</i>)	BRLT

Subject	Lecturer	Time	Place
Microscopy and Analysis of Surfaces	Dr C.S. Allen	Th. 11, F. 10 (wks 4-6) T. 11 (wks 5-6)	BRLT
Atomistic Modelling	Dr C.E. Patrick & Prof. J.R. Yates	<i>Recommended view time of online lectures</i> M. T. 9 (wks 3-7)	
		<i>Live Q&A workshops</i> Detailed schedule to follow	Via Teams
Options Lectures			
^{2,4} Materials & Devices for Optics & Optoelectronics	Prof. A.A.R. Watt	M. 10, Th. 9 (wks 4-5,7-8) T. 12 (wks 4-5,7-8)	LR8 HRLT
^{2,4} Prediction of Materials Properties	Dr C.E. Patrick	W. 11, Th. 9, F. 10 (wk 3) T. 11 (wks 4-5,7-) W. 11 (wks 4-5,7-8) M. 12 (wk 8) T. 12(wk 8)	LR8 HRLT LR8
^{2,4} Magnetic and Superconducting Materials	Prof. S.C. Speller & Dr. M. Slota	M. 9, W. 9, F. 10 (wks 4-5,7) T.. 9 (wks 4-5) Th. 9 (wk 5)	LR8
Biomaterials	Prof J.T. Czernuszka	W. 9 (wk 3) Th. 12, F. 9 (wk 7) T. 10 (wks 4-5, 7) Th. 12, F.9 (wks 3-5)	LR8
^{2,4} Microstructural Control in Engineering Alloys	Prof. K.A.Q. O'Reilly & Dr E. Liotti	W. 12, Th. 10, F. 13 (wk 3) M. 12, Th. 10, F. 12 (wks 4-5,7)	LR8
Research colloquia			
Materials Colloquia		Th. 3.30-5pm (wks 3,4,6,8)	HRLT
MML Seminar		T. 2pm (wks 2,4,6,8)	HRLT

¹Students who wish to attend the Supplementary Subject lectures should be aware that due to timetabling constraints, some of the lectures may overlap with core lectures.

²The lecture courses each have three hours of associated classes

³Y3 UG students attend one class in each week and need to register for a specific class via [Canvas](#)

⁴This course is also offered to undergraduates as a 3rd year option. All postgraduates are welcome to take the course. 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.

⁵Contact Christina Foldbjerg Holdway for details and an invitation:

christina.foldbjerg@materials.ox.ac.uk

UNDERGRADUATE TEACHING LAB PRACTICAL SCHEDULES FOR MICHAELMAS TERM 2024

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

MT Wk	YEAR 1 (Thur, Fri) [except Week1, when it is Tues-Fri]
1	1P1a, Intro to Computing (PJW , M.T. Ansari)
2	1P1b, Intro to Microscopy (KAQOR , SLP)

3 4	1P2, Intro to LabVIEW (AARW/RSB)
5 6	1P3, Young's Modulus (TJM/AJW)
7 8	1P4 Metallography (AJW, DEJA)

MT Wk	YEAR 2 (Mon, Tue, Wed)
1 2	2P1, Materials Selection (DEJA, SCS)
3 4	2P2, Steels (TJM, KM)
5 6	2P3, Extrusion (C Barker, MLG)
7 8	2P4, Casting (KAQOR, MLG)