

DEPARTMENT OF MATERIALS

DIVISION OF MATHEMATICAL, PHYSICAL AND LIFE SCIENCES

Lecture List for Michaelmas Term 2021

Lectures begin on the first possible day after the beginning of Full Term (Sunday, 10 October) 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
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 Meeting Room, Rex Richards Building

Subject	Lecturer	Time	Place
FIRST YEAR			
Induction Course	Prof. H.E. Assender, Prof. T.J. Marrow, Ms P.J. Moss & others	F. 1:50-4:00 (<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. J.R. Yates	M. 9 (<i>wk 1</i>)	HRLT
Introduction to Practicals	Prof. S. Lozano-Perez	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
Study Skills Workshop	Prof. T.J. Marrow	M. 12 (<i>wk 4</i>)	HRLT
The Institute of Materials - Benefits of Student Membership	S Boad – Institute of Materials	M. 12 (<i>wk 7</i>)	HRLT
Workshop on (i) Writing a Full Report on a Practical and (ii) Keeping a Good Laboratory Notebook	Prof. S. Lozano-Perez	T. 9.30-11 (<i>wk 2</i>)	HRLT
Introduction to Errors in Measurement	Prof. J.M. Smith	W. Th. 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	Dr E.J. Darnbrough & tbc	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>)	BRCR and RR
Materials Science 1: Physical Foundations of Materials			
The Study of Crystalline Materials by Diffraction	Prof. A.I. Kirkland	<i>Recommended view time of online lectures</i> T. W. Th. F. 9 (<i>wk 1</i>) M. W. Th. F. 9 (<i>wks 2</i>)	
		<i>Live Q&A workshop</i> F. 10 (<i>wks 1-2</i>)	Via Teams
Materials Science 2: Structure and Mechanical Properties of Materials			
Elastic Deformation	Prof. A.J. Wilkinson	M. W. Th. F. 12 (<i>wks 2,3</i>)	HRLT
Structures of Crystalline and Glassy Materials	Prof. K.A.Q. O'Reilly & Prof. M.L. Galano	M. W. Th. F. 12 (<i>wks 5-6</i>)	HRLT
Materials Science 3: Transforming Materials			
Thermodynamics	Prof. M.P. Moody	M. W. Th. F. 9 (<i>wks 3-4</i>)	HRLT
Microstructure & Processing of Materials I	Prof. C.R.M. Grovenor	F. 11 (<i>wk 4</i>) M. F. 9 (<i>wks 5-7</i>) Th. 9 (<i>wk 7</i>)	HRLT
Introduction to Nanomaterials	Prof. N. Grobert	<i>Recommended view time of online lectures</i> Th. F. 12 (<i>wk 4</i>) W. Th. 9 (<i>wks 5-6</i>) Th. F. 11 (<i>wk 7</i>)	
		<i>Live Q&A workshop</i> Th. 10 (<i>wk 5</i>) F. 12 (<i>wk 7</i>)	Via Teams

Subject	Lecturer	Time	Place
Mathematics for Materials Science			
Ordinary and Partial Differentiation	Dr E. Liberti	<i>Recommended view time of online lectures</i> T. W. Th. F. 11 (wk 1) W. Th. F. 11 (wk 2)	
		<i>Live Q&A workshop</i> M. 11 (wks 2-3)	LR8
Vectors & Matrices	Prof. S.C. Benjamin	<i>Recommended view time of online lectures</i> T. W. Th. 11 (wk 3) M. W. 11 (wk 4) M. W. Th. 11 (wks 5-6)	
		<i>Live Q&A workshop</i> Th. 11 (wk 4) F. 11 (wks 5-6)	LR8
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) M. 11, W. 12, Th. 10 (wk 2)	BRLT
GP2: Electronic Properties of Materials			
Electronic Structure of Materials	Dr C.E. Patrick	M. F. 12 (wks 1-4) Th. 12 (wks 1,3-4) Th. 9 (wk 2)	BRLT
GP3: Mechanical Properties of Materials			
Elastic Deformation of Materials	Prof. P.D. Nellist & Prof. J.T. Czernuszka	M. W. 9 (wks 3-6) Th. 9 (wks 3,5)	BRLT
GP4: Structure & Thermodynamics of Materials			
Statistical Mechanics and Thermal Properties	Prof. J.M. Smith	M. F. 12 (wks 5-7) Th. 12 (wks 5,7)	BRLT
Phase Transformations	Prof. C.R.M. Grovenor	T. W. 10 (wks 2-7) Th. 10 (wks 3-6)	BRLT
Other Lectures			
Introduction to the Part I Materials Programme	Prof. T.J. Marrow	M. 10 (wk 1)	BRLT
Introduction to Practicals	Prof. S. Lozano-Perez	M. 9 (wk 1)	BRLT
Mathematics – Partial Differential Equations & Fourier Series, and Tensors	Prof. S.C. Benjamin & Dr B. Koczor	T. F. 9 (wks 1-6)	BRLT

Subject	Lecturer	Time	Place
Entrepreneurship/Business Plan – workshop on ‘Teams’	Dr E. Williams	F. 2–4 (wk 4)	Via Zoom
Engineering & Society: Entrepreneurship/Business plan briefing	Dr S.M. Wilkinson	Th. 2–4 (wk 7)	BRLT
Presentation by Johnson-Matthey	HoD & Johnson-Matthey Representative	Th. 12-2 (wk 2) tbc	tbc
Introduction to Industrial Visits	Dr E. Liotti	W. 9 (wk 1)	Via Teams
Practical Classes	Various staff	M. T. W. 2-5 (wks 1-8)	HBTL
Industrial Visit	Dr E. Liotti	Th. 1-6 (wk 5) AND/OR F. 1-6 (wk 7)	HRF
Supplementary Subjects			
² History and Philosophy of Science: The Origins of Science	Dr A. Aylward	T. 12 (wks 1-8)	Online
^{1,2} Quantum Chemistry	Prof D.E. Manolopoulos & Prof S.R. Mackenzie	T. F. 5 (wks 1-4) T. F. 11 (wks 5-8)	Physical and Theoretical Chemistry Laboratory
THIRD YEAR			
Options Paper 1			
² Materials & Devices for Optics & Optoelectronics	Prof. J.M. Smith	W. 4, F. 10.30 (wk 3) T. 9, W. 4 (wks 4&5) T. 9, W. 4, F. 11 (wks 7&8)	HRLT
² Prediction of Materials Properties	Dr C.E. Patrick	W. 3 (wk 3) T. 2, W. 3 (wk 4) T. 2, W. 3, Th. 9 (wk 5) M. 3, W. 10, F. 12 (wks 7&8)	HRLT
² Magnetic and Superconducting Materials	Prof. S.C. Speller & Prof. L. Bogani	Th. 10.30 (wk 3) M. 3, Th. 10.30 (wk 4) T. 11, Th. 10.30, F. 2 (wk 5) T. 11, W. 12, Th. 11 (wks 7&8)	HRLT
² Engineering Ceramics: Synthesis & Properties	Prof. R.I. Todd	<i>Recommended view time of online lectures</i> M. 4, T. 4, Th. 12 (wk 4) M. 4, T. 4, W. 9 (wk 5) T. 4, W. 9, Th. 12(wk 7) T. 4 (wk 8)	
		<i>Live Lectures:</i> W. 9, Th. 12 (wk 8)	HRLT
		<i>Live Q&A Workshop</i> F. 9 (wk 8) tbc	HRLT
² Advanced Manufacture with Metals and Alloys: Processing, Joining & Shaping	Prof. K.A.Q. O'Reilly & Dr E. Liotti	W. 10.30 (wk 3) T. 12, Th. 2 (wk 4) T. 12, W. 10, F. 4 (wk 5) M. 2, T. 12, Th. 2 (wks 7&8)	HRLT

Subject	Lecturer	Time	Place
Options Classes			
^{2,3} Materials & Devices for Optics & Optoelectronics	Class Lecturer		
Class 1	Prof. J.M. Smith	M. 9, T. 2, W. 2 (<i>wk 7</i>)	BRCR
Class 2	Prof. J.M. Smith	Th. 9, Th. 3, F. 3 (<i>wk 8</i>)	BRCR
Class 3	Prof. J.M. Smith	tbc (<i>wk 1 HT</i>)	tbc
^{2,3} Advanced Manufacture with Metals & Alloys	Class Lecturer		
Class 1	Prof. K.A.Q. O'Reilly	Th. 9, F. 2 (<i>wk 7</i>) M. 9 (<i>wk 8</i>)	BRCR
Class 2	Dr E. Liotti	tbc (<i>wk 1 HT</i>)	tbc
^{2,3} Prediction of Materials Properties	Class Lecturer		
Class 1	Dr C.E. Patrick	M. 11, T. 2, W. 2 (<i>wk 7</i>)	ETBCR
Class 2	Dr C.E. Patrick	W. 2, Th. 9, F. 4 (<i>wk 8</i>)	ETBCR
Class 3	Dr C.E. Patrick	tbc (<i>wk 1 HT</i>)	tbc
^{2,3} Magnetic and Superconducting Materials	Class Lecturer		
Class 1	Prof S.C. Speller	F. 4 (<i>wk 7</i>) M. 11, T. 2 (<i>wk 8</i>)	ETBCR
Class 2	Prof. L. Bogani	tbc (<i>wk 1 HT</i>)	tbc
^{2,3} Engineering Ceramics: Synthesis & Properties	Class Lecturer		
Class 1	D. Andrews	M. 4, Th. 9, F. 2 (<i>wk 7</i>)	ETBCR
Class 2	D. Andrews	W. 2 (<i>wk 8</i>) Th. 3, F. 2 (<i>wk 8</i>)	BRCR ETBCR
Class 3	D. Andrews	tbc (<i>wk 1 HT</i>)	tbc
Other Lectures			
Introduction to Characterisation/Atomistic Modelling Option Modules	Prof. M.P. Moody & Dr C.E. Patrick	Th. 3.00 (<i>wk 7</i>)	HRLT
Presentation by Johnson-Matthey	HoD & Johnson-Matthey Representative	Th. 12-2 (<i>wk 2</i>) tbc	tbc
Introduction to Team Design Project	Prof. A.A.R. Watt	M. 9.30-10.30 (<i>wk 1</i>)	LR8
TDP Workshop on Markets and Market Disruptors	Prof. S. Newbury	M. 3.00pm (<i>wk 1</i>)	HRLT
Team Design Project Presentations	2x Examiners	F. 1-6 (<i>wk 3</i>) tbc	ETBCR
Introduction to Modelling in Materials Science	Prof J.R. Yates, Prof R. Drautz & Prof. E. Tarleton	M-F 9-5 (<i>wk 6</i>)	ONLINE
External Part II Project Briefing	Prof. K.A.Q. O'Reilly	F. 10.30 (<i>wk 5</i>)	HRLT
Industrial Visit	Dr E. Liotti	Th. 1-6 (<i>wk 5</i>) AND/OR F. 1-6 (<i>wk 7</i>)	HRF
'Supercollection' Feedback GP1/2	Various	T. 10.30-12 (<i>wk 4</i>)	HRLT
'Supercollection' Feedback GP3/4	Various	W. 10.30-12 (<i>wk 4</i>)	HRLT

Subject	Lecturer	Time	Place
FOURTH YEAR			
Part II Induction Course	Prof. K.A.Q. O'Reilly & others	M. 9.30 – 12.30 (<i>wk -3</i>)	HRLT
Part II Project Management	Prof. K.A.Q. O'Reilly & others	Th. 1.30 – 5 (<i>wk -3</i>)	HRLT
Workshops on Ethics & Sustainability, in the context of Part II	Co-ordinated by Prof. S. Newbury	F. 1.30–4.30 (<i>wk 7</i>)	HRLT
Workshop on Engineering/Scientific Context in respect of Part II Projects	Prof. R.C. Reed	M. 10.30 (<i>wk 7</i>)	HRLT
DPhil Open Day	Dr A.O. Taylor & HoD	W. 2.30-4 (<i>wk 3</i>)	BRCR
Information Skills & Managing Your References	(RSL)	M. 10.00-11.00 (<i>wk -1</i>)	Via Teams
The OU Careers Service – Active Job Hunting	Dr A. Evans	Th. 1.30 (<i>wk 5</i>)	HRLT
Industrial Visit	Dr E. Liotti	Th. 1-6 (<i>wk 5</i>) AND/OR F. 1-6 (<i>wk 7</i>)	HRF
LabVIEW workshop	Prof. A.A.R. Watt	M. 9.30-12.00 (<i>wk 2</i>)	HBTL
Presentation by Johnson-Matthey	Dr E. Liotti & Johnson-Matthey representative	Th. 12-2 (<i>wk 2</i>) tbc	tbc
POSTGRADUATES			
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)	Mr I.P. Bishop, Dept Safety Officer	T. 10 (<i>wk 1</i>)	HRLT
⁵ Hydrofluoric Acid Safety	Mrs C. Foldbjerg Holdway	T. 11 (<i>wk 1</i>)	Via Teams
⁵ Safe Handling of Compressed Gas Cylinders	Mrs C. Foldbjerg Holdway	W. 10 (<i>wk 1</i>)	Via Teams
OU Introduction to Laser Safety	contact the University Safety Office	tbc	tbc
The OU Careers Service – Active Job Hunting	Dr A. Evans	Th. 1.30 (<i>wk 5</i>)	HRLT
Looking to the Future – What Do Employers Seek? (for 1 st year postgraduates)	OUCaS & Dr A.O. Taylor,	F. 3-4.30 (<i>wk 6</i>)	HRLT
Project Management	Dr P.D. Warren, NSG (Pilkington), & Dr A.O. Taylor	F. 12.30-1.30 (<i>wk 4</i>) F. 2.30-3.30 (<i>wk 4</i>)	HRLT HRLT
The Institute of Materials – Benefits of Student Membership	S Boad, Institute of Materials	M. 12 (<i>wk 7</i>)	HRLT
Postponed 20/21 2nd year Research Talks – Heats & Finals	Dr A.O. Taylor & All Academic Staff	M-F (<i>wk 8</i>) Detailed scheduled to be circulated Finals F. 1-6 (<i>wk 8</i>)	BRLT HRLT
Owning a successful DPhil	JCCG	tbc	tbc
X-ray Diffractometry	Prof. S.C. Speller	<i>Recommended view time of online lectures</i> M. 2 (<i>wks 3-4</i>)	

Subject	Lecturer	Time	Place
Optical Microscopy	Prof. P.D. Nellist	M. 2.30-4.30 (wk 2)	HRLT
Poster Presentation Skills	Dr A.O. Taylor	M. 11.45-1 (wk 9)	HRLT
Presentation by Johnson-Matthey	Dr E Liotti & Johnson-Matthey representative	Th. 12-2 (wk 2) tbc	tbc
Teaching Skills: Tutoring Maths Classes	Prof. J.R. Yates	F. 2-5 (wk 1)	BRCR
Teaching Skills: Tutoring Materials Science	Prof. S.C. Speller	Th. 2-5 (wk 2)	BRCR
Teaching Skills: Delivering a UG Lecture Course	Prof. T.J. Marrow	W. 2-5 (wk 4) tbc	BRCR
Teaching Skills: Junior Demonstrating in the Materials Teaching Lab	Prof. S. Lozano-Perez & others	W. 11-1.30 (wk 7) OR F. 11-1.30 (wk 7)	BRCR BRCR
Information Skills	A. Vetrugno, RSL	F. 10.00-11.30 (wk 2)	HRLT
LabVIEW workshop	Prof. A.A.R. Watt	M. 9.30-12.00 (wk 2)	HBTL
Industrial Visit	Dr E. Liotti	Th. 6 (wk 5) AND/OR F. 1-6 (wk 7)	HRF
Postgraduate lecture courses			
Foundation Topics for Electron Microscopy	Dr N.P. Young	<i>Recommended view time of online lectures</i> W. Th. 1.30 (wk 1) T. W. 1.30 (wk 2) Live Q&A workshop W. 3 (wk 2)	Via Teams
	Dr G.M. Hughes &	<i>Recommended view time of online lectures</i> Th. 1.30 (wk 2) T. 1.30 (wk 3) Live Q&A workshop F. 2 (wk 3)	Via Teams
	Prof. P.D. Nellist	W. Th. 1.30 (wk 3)	HRLT
Microscopy and Analysis of Surfaces	Dr C.S. Allen	T. Th. 2.00pm (wks 4-6) F. 2.00pm (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) Live Q&A workshops Detailed schedule to follow	Via Teams
Options Lectures			
^{2.4} Materials & Devices for Optics & Optoelectronics	Prof. J.M. Smith	W. 4, F. 10.30 (wk 3) T. 9, W. 4 (wks 4&5) T. 9, W. 4, F. 11 (wks 7&8)	HRLT
^{2.4} Prediction of Materials Properties	Dr C.E. Patrick	W. 3 (wk 3) T. 2, W. 3 (wk 4) T. 2, W. 3, Th. 9 (wk 5) M. 3, W. 10, F. 12 (wks 7&8)	HRLT
^{2.4} Magnetic & Superconducting Materials	Prof. S.C. Speller & Prof. L. Bogani	Th. 10.30 (wk 3) M. 3, Th. 10.30 (wk 4) T. 11, Th. 10.30 , F. 2 (wk 5) T. 11, W. 12, Th. 11 (wks 7&8)	HRLT
^{2.4} Engineering Ceramics: Synthesis & Properties	Prof. R.I. Todd	M. 4, T. 4, Th. 12 (wk 4) M. 4, T. 4, W. 9 (wk 5) T. 4, W. 9, Th. 12 (wks 7&8)	HRLT

Subject	Lecturer	Time	Place
^{2,4} Advanced Manufacture with Metals and Alloys	Prof. K.A.Q. O'Reilly & Dr E. Liotti	W. 10.30 (wk 3) T. 12, Th. 2 (wk 4) T. 12, W. 10, F. 4 (wk 5) M. 2, T. 12, Th. 2 (wks 7&8)	HRLT
Options Classes			
See Y3 above if required to attend			
Research colloquia			
Materials Colloquia		Th. 3:30-5pm (wks 1,3,4,8)	HRLT
QIP Seminars		tbc	Phrontisterion

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 2021

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 , Rob Saunders)
2	1P1b, Intro to Microscopy (KAQOR , SLP)
3 4	1P2, Intro to LabVIEW (AARW , RSB)
5 6	1P3, Young's Modulus (TJM/PDN)
7 8	1P4 Metallography (tbc, AJW)

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