

**Joule Physics Laboratory** 

# **MODULE LECTURERS (2023/2024)**

# **Physics Foundation Year (level 3)**

Semesters 1 & 2 (S1 & S2)

Foundation Physics A [S1 Heather M Yates + S2 Graham S McDonald]
Foundation Physics B [S1 Mark A Hughes + S2 Marina Leontiadou]
Foundation Physics Laboratory [S1 Marina Leontiadou + S2 Tiehan Shen]
Foundation IT and Study Skills [S1 Marina Leontiadou + S2 Mark A Hughes]

### Semester 1

Foundation Mathematics 1 [Kevin Sandiford, Eloise Kalavsky]

#### Semester 2

Foundation Mathematics 2 [Graham S McDonald]

Mathematics only: Intro to Probability & Stats [S1 + S2 Hamid A Adamu]

# Physics First Year (level 4)

Semesters 1 & 2 (S1 & S2)

Mechanics, Relativity and Quantum Physics [S1 Ian Morrison + S2 Marina Leontiadou]
Electricity, Magnetism and Light [S1 + S2 Mark A Hughes + S2 Tiehan Shen]
Physics Laboratory 1 [S1 Mark A Hughes, Heather M Yates + S2 Heather M Yates, John E Proctor]
Physics in Context [S1 + S2 Ian Morrison]
Modelling of Physical Systems [S1 + S2 Dan J Bull]
Mathematics [S1 + S2 Graham S McDonald]

Physics Seminars [Marina Leontiadou]

Electronic Engineers only: Mathematics [S1 Graham S McDonald] and Maths & Computing [S2 Graham S McDonald (theory), Salem Ameen (computing)]

# **Physics Second Year (level 5)**

Semesters 1 & 2 (S1 & S2)

Electromagnetism [John E Proctor]
Thermal Physics [Dan J Bull]

Quantum Physics [Ian Morrison]

Waves and Optics [James M Christian and Tiehan Shen]

#### Semester 1

Physics Laboratory 2 [Heather M Yates (Practical) and Dan J Bull (Computing)]

#### Semester 2

Group Project [Mark A Hughes] †

† Physics options: Educational Principles and Practice in STEM [S2 Claire M Ellison], Foreign Language [S1+S2 Languages]

† Acoustics: Principles of Acoustics [\$1+\$2 Olga Umnova]



### **Joule Physics Laboratory**

# **Physics Third Year (level 6)**

### Semesters 1 & 2

Physics Project - 40 Credits [Heather M Yates]

### Semester 1

Nuclear and Particle Physics [John E Proctor (Nuclear) and Ian Morrison (Particle)] Physics Laboratory 3 [Ian Morrison (Practical) and James M Christian (Computing)]

#### Semester 2

Condensed Matter Physics [Dan J Bull and Tiehan Shen]

### Semester 2 option:

Astrophysics & Planetary Physics [Ian Morrison (Astro) and John E Proctor (Planetary)]

or

Photonics and Nanotechnology [James M Christian (Photonics) and Heather M Yates and Mark A Hughes (Nanotechnology)]

# **Physics MPhys Fourth Year (level 7)**

#### Semesters 1 & 2

Research Project [Heather M Yates] 60 credits

### Semester 1

Advanced Quantum Mechanics [Ian Morrison, Tiehan Shen and James M Christian] 30 credits

### Semester 2

Thin Films and Materials Characterisation [John E Proctor, Heather M Yates, Tiehan Shen and Mark A Hughes (labs)]
30 credits