

# MODULE LECTURERS (2017/2018)

## 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 Ian Morrison + S2 Marina Leontiadou]

Foundation Physics Laboratory [S1 Mark A Hughes + S2 Leontiadou]

Foundation IT and Study Skills [Richard D Pilkington]

### **Semester 1**

Engineering Methodology S0.1 [Garry Rowsell]

### **Semester 2**

Engineering Methodology S0.2 [Ian Morrison and James Christian]

## Physics First Year (level 4)

### **Semesters 1 & 2 (S1 & S2)**

Fundamentals of Physics A [S1 Ian Morrison + S2 John E Proctor + Labs by S1 Bull / S2 Yates]

Fundamentals of Physics B [Dan J Bull + Labs by S1 Dan J Bull / S2 Heather M Yates]

Fundamentals of Physics C [S1 MA Hughes + S2 JM Christian + Labs by S1 Bull / S2 Proctor + Yates]

Frontiers of Physics and Entrepreneurial Skills [Richard D Pilkington + Ian Morrison]

### **Semester 1**

Mathematics [Graham S McDonald]

### **Semester 2**

Mathematics and Computing [Graham S McDonald (theory) + Dan J Bull (computing labs)]

Within the Pure and Applied Physics degree, the above two Mathematics modules are replaced by:  
Pure and Applied Mathematics for Physics and Pure and Applied Mathematics and Computing [Graham S McDonald + PAP Computer-Aided Learning by Stuart Astin]

## Physics Second Year (level 5)

### **Semesters 1 & 2 (S1 & S2)**

Physics Laboratory [S1 Mark A Hughes + S2 Richard D Pilkington]

Computing Laboratory [S1 James Christian + S2 Stuart Astin] †

Classical and Quantum Waves [S1 Ian Morrison + S2 Stanko Tomic]

Mathematical Methods and Applications [S1 Graham S McDonald + S2 Tiehan Shen]

Properties of Matter [S1 Dan J Bull + S2 Mark A Hughes]

Physics of the Universe [Keith Robinson] †

- † or Acoustics option: Digital Signal Processing [James Woodcock]  
or Acoustics option: Principles of Acoustics [Olga Umnova] or Foreign Language

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

### **Semesters 1 & 2 (S1 & S2)**

Nuclear and Particle Physics [*S1 John E Proctor + S2 Ian Morrison*]

Maxwell's Equations and Wave Optics [*Tiehan Shen*]

Quantum Mechanics of Atoms, Molecules and Solids [*S1 Stanko Tomic + S2 Dan J Bull*]

Physics Project - 40 Credits [*Richard D Pilkington*]

Photonics and Nano-technology [*S1 James M Christian + S2 John E Proctor*] †

† or Physics option: Theoretical Physics [*James M Christian*]

or Acoustics option: Psychoacoustics & Musical Acoustics [*Trevor J Cox*]

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

### **Semesters 1 & 2 (S1 & S2)**

Nuclear and Particle Physics [*S1 John E Proctor + S2 Ian Morrison*]

Maxwell's Equations and Wave Optics [*Tiehan Shen*]

Quantum Mechanics of Atoms, Molecules and Solids [*S1 Stanko Tomic + S2 Dan J Bull*]

Short Project [*Richard D Pilkington*]

Theoretical Physics [*James M Christian*]

Photonics and Nano-technology [*S1 James M Christian + S2 John E Proctor*] †

† or Acoustics option: Psychoacoustics & Musical Acoustics [*Trevor J Cox*]

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

### **Semesters 1 & 2**

Research Project [*Richard D Pilkington + Heather M Yates*]

60 credits

### **Semester 1**

Advanced Quantum Mechanics [*Stanko Tomic + Tiehan Shen + Computing: Ian Morrison*]

30 credits

### **Semester 2**

Thin Films and Materials Characterisation [*John E Proctor + Heather M Yates + Tiehan Shen + Labs by Mark A Hughes / Richard D Pilkington*]

30 credits