

MPhys with Photonics - Programme Structure

| Part 1 | | | | | | | | | |
|-------------------|---|------|------|--------------------------------------|-------------------|------|------|---|---|
| Semester 1 | | | | | Semester 2 | | | | |
| | | ECTS | FHEQ | | | ECTS | FHEQ | | |
| PHYS1015 | † | 5 | 4 | Motion and relativity | PHYS1011 | † | 5 | 4 | Waves, light & quanta |
| PHYS1017 | † | 5 | 4 | Physics Skills 1 | PHYS1013 | † | 5 | 4 | Energy & matter |
| PHYS1022 | † | 5 | 4 | Electricity and Magnetism | PHYS1019 | † | 5 | 4 | Physics Skills 2 |
| MATH1006 | † | 7.5 | 4 | Introduction to Mathematical Methods | MATH1007 | † | 7.5 | 4 | Mathematical Methods for Physical Science |
| PHYS1004 | † | 7.5 | 4 | Introduction to Photonics | OPTION | | 7.5 | 4 | 1 option module |

| Part 2 | | | | | | | | | |
|-------------------|---|------|------|-------------------------|-------------------|------|------|---|---------------------------|
| Semester 1 | | | | | Semester 2 | | | | |
| | | ECTS | FHEQ | | | ECTS | FHEQ | | |
| PHYS2003 | † | 7.5 | 5 | Quantum Physics | PHYS2001 | † | 7.5 | 5 | Electromagnetism |
| PHYS2022 | † | 7.5 | 5 | Physics from Evidence 1 | PHYS2006 | † | 7.5 | 5 | Classical Mechanics |
| PHYS2023 | † | 7.5 | 5 | Wave Physics | PHYS2024 | † | 7.5 | 5 | Quantum Physics of Matter |
| OPTION | | 7.5 | 5 | 1 option module | PHYS2009 | † | 7.5 | 5 | Practical Photonics |

| Part 3 | | | | | | | | | |
|-------------------|---|------|------|--------------------|-------------------|------|------|-------|------------------------------------|
| Semester 1 | | | | | Semester 2 | | | | |
| | | ECTS | FHEQ | | | ECTS | FHEQ | | |
| PHYS3004 | † | 7.5 | 6 | Crystalline Solids | PHYS3002 | † | 7.5 | 6 | Nuclei & Particles |
| PHYS3008 | † | 7.5 | 6 | Atomic Physics | PHYS3007 | † | 7.5 | 6 | Theories of Matter, Space and Time |
| PHYS6009 | ‡ | 7.5 | 7 | Dissertation | PHYS6008 or | ‡ | 7.5 | 7 | Physics from Evidence 2 |
| PHYS3003 | † | 7.5 | 6 | Light and Matter | PHYS6017 | ‡ | 7.5 | 7 | Computer Techniques |
| | | | | | OPTION | | 7.5 | 5/6/7 | 1 Option module |

| Part 4 | | | | | | | | | |
|-------------------|---|------|------|--|-------------------|------|------|-----|---------------------|
| Semester 1 | | | | | Semester 2 | | | | |
| | | ECTS | FHEQ | | | ECTS | FHEQ | | |
| PHYS6006 | † | 15 | 7 | MPhys Project (continues through semester 2) | | | | | |
| PHYS6024 | ‡ | 7.5 | 7 | Lasers | PHYS6015 | ‡ | 7.5 | 7 | MPhys Synoptic Exam |
| PHYS6012 | ‡ | 7.5 | 7 | Coherent Light, Coherent Matter | OPTION | | 7.5 | 7 | 1 option module |
| OPTION | | 7.5 | 6/7 | 1 option module | OPTION | | 7.5 | 6/7 | 1 option module |

FHEQ levels for options are illustrative, other configurations are possible, but must meet university regulations on forward/back-tracking, and final ECTS accumulation for award (<http://www.calendar.soton.ac.uk/sectionIV/cats.html>)

Status † Core module - must be taken and passed before progression to next level or award
‡ Compulsory module - must be taken before progression to next level or award