

MPhys THEORETICAL PHYSICS (F344)

Programme offered at: Durham.

Mode of study: this programme is available full-time.

LEVEL 1 (Certificate)

| | | | |
|-----|---|--------------------------|----|
| 1-2 | Foundations of Physics 1 | PHYS1122 | 40 |
| 3 | Discovery Skills in Physics | PHYS1101 | 20 |
| 4-5 | EITHER Single Mathematics A # | MATH1561 | 20 |
| | AND Single Mathematics B # | MATH1571 | 20 |
| | OR Core Mathematics A # | MATH1012 | 40 |
| 6 | One 20 credit open Level 1 module chosen from those offered by any Board of Studies | | 20 |

These modules must be passed at 40% or above in order to progress to the BSc Ordinary degree in Physics or Physics and Astronomy at the next Level.

LEVEL 2 (Diploma)

| | | | |
|---|---------------------------------------|--------------------------|----|
| 1 | Foundations of Physics 2 | PHYS2511 | 20 |
| 2 | Mathematical Methods in Physics | PHYS2521 | 20 |
| 3 | Thermal and Condensed Matter Physics | PHYS2531 | 20 |
| 4 | Stars and Galaxies | PHYS2541 | 20 |
| 5 | Laboratory Skills and Practice | PHYS2551 | 20 |
| 6 | Computational Physics and Electronics | PHYS2571 | 20 |

Notes:

Students who have successfully completed Levels 1 and 2 of the MPhys in Theoretical Physics in accordance with the Core Regulations may, with the permission of the Chair of the Board of Studies in Physics, change their registration to the MPhys in Physics or Physics and Astronomy;

Students who fail to achieve the standard required under the Core Regulations for progression to Level 3 of the MPhys in Theoretical Physics but who achieve the standard required for progression to Level 3 of a Bachelors programme may progress to Level 3 of the BSc in Physics or Physics and Astronomy in the Honours or Ordinary stream in accordance with the Core Regulations;

A student who is qualified to progress from Level 2 to Level 3 of the MPhys in Theoretical Physics but wishes to transfer to Level 3 of the BSc in Physics or Physics and Astronomy shall be permitted to do so.

LEVEL 3 (Degree)

| | | | |
|-----|--|--------------------------|----|
| 1-2 | Foundations of Physics 3 | PHYS3522 | 40 |
| 3 | Key Skills A | PHYS3561 | 20 |
| 4 | Theoretical Physics | PHYS3551 | 20 |
| 5 | Mathematics Workshop | PHYS3591 | 20 |
| 6 | EITHER One 20 credit module chosen from List A | | |
| | OR One 20 credit module chosen from those offered by another Board of Studies, subject to approval by the Chair of the Board of Studies in Physics | | |

Notes:

Students whose achievement at the end of Level 3 does not qualify them to proceed to Level 4 may be awarded the degree of Bachelor of Physics (BPhys) at either Honours or Ordinary level in accordance with the Core Regulations for the award of a Bachelors degree.

LEVEL 4 (Degree)

| | | | |
|-----|--|--------------------------|----|
| 1-3 | Project | PHYS4213 | 60 |
| 4 | EITHER Advanced Theoretical Physics | PHYS4141 | 20 |
| | OR Particle Theory | PHYS4181 | 20 |
| 5-6 | EITHER Modules to the value of 40 credits chosen from List B | | |
| | OR One 20 credit module chosen from List B AND one 20 credit module chosen from those offered by another Board of Studies, subject to approval by the Chair of the Board of Studies in Physics | | |

Notes:

Students whose achievement at the end of Level 4 does not qualify them to be awarded the degree of MPhys in Theoretical Physics may be awarded the degree of Bachelor of Physics (BPhys) with Honours in accordance with the Core Regulations for the award of a Bachelors degree.

This programme is accredited by the Institute of Physics until February 2009.

MODULE LISTS: PHYSICS

LIST A

| | | |
|--------------------------|--------------------------|----|
| Condensed Matter Physics | PHYS3531 | 20 |
| Astrophysics | PHYS3541 | 20 |
| Theoretical Physics | PHYS3551 | 20 |

LIST B

| | | |
|-----------------------------------|--------------------------|----|
| Condensed Matter Physics 4 | PHYS4111 | 20 |
| Atomic and Optical Physics | PHYS4121 | 20 |
| Astrophysics 4 | PHYS4131 | 20 |
| Advanced Theoretical Physics | PHYS4141 | 20 |
| Advanced Condensed Matter Physics | PHYS4151 | 20 |
| Advanced Astrophysics | PHYS4161 | 20 |
| Particle Theory | PHYS4181 | 20 |
| Theoretical Physics 4 | PHYS4191 | 20 |
| Theoretical Astronomy | PHYS4201 | 20 |
