



The  
University  
Of  
Sheffield.

# **Department of Physics and Astronomy**

# **A Guide for Undergraduate Students 2015 -2016**

<b>Contents</b>	<b>Page number</b>
Preface: About this Guide.	3
WHO'S WHO IN THE DEPARTMENT.	4
Central Support and Welfare.	7
Members of staff with special responsibilities.	8
1 Aims and Objectives of the Department	11
2 Teaching and Learning.	14
3 Your responsibilities as a Student	18
4 Organisation of Courses.	20
5 Coursework, Assessment and Progression.	23
6 Student Evaluation.	33
7 Tutors.	36
8 Departmental Resources.	40
9 University Resources	42
10 Disciplinary and Grievance Procedures.	44
11 Safety.	46
12 Higher Education Achievement Report	47
13 Departmental Committees.	48
Dates of Standard Semesters - 2015/16.	49

## **Preface: About this Guide**

On behalf of the all members of the Department I would like to welcome new students to the Department and also to welcome back existing students following the summer vacation. We hope that you will enjoy your time with us and that you will find your degree programme enjoyable and stimulating.

The University of Sheffield's Department of Physics and Astronomy is an active and long-established department with over 30 academic staff members who pursue research in a wide variety of fields from active galaxies to organic thin film and from the search for dark matter to semiconductor nanostructures. The Department has a strong commitment to teaching and we pride ourselves on the friendly relations between staff and students and on the number of our undergraduates who choose to remain in Sheffield for postgraduate work.

This Guide contains a brief summary of the teaching aims and objectives of the Department and those aspects of the way the Department is run which may be important to you as a student. More details about your particular course can be found on the departmental website, and in the material posted on Undergraduate Information notice boards around the Department. You should read this material since it contains important information.

It is important to stress that, as well as the information contained in this guide, we want you to feel that you can talk to tutors, lecturers or advisors about any matter that may concern you. In addition you can contact a representative of the Staff/Student Committee, or a member of the office staff; the University has many mechanisms of support that you can use.

Professor Nigel Clarke  
Head of Department  
September 2015

## WHO'S WHO IN THE DEPARTMENT

Role		Room	Ext no.	Email address
Head of Department	Prof Nigel Clarke	F09a	24273	n.clarke@shef.ac.uk
Director of Teaching	Prof Paul Crowther	E35	24291	Paul.Crowther@shef.ac.uk
Senior Tutor	Prof John Cockburn	E15	23507	j.cockburn@sheffield.ac.uk
<b>Year Tutors</b>	<b>Physics</b>			
Foundation Year	Dr Martin Grell	D30	23598	M.Grell@shef.ac.uk
Year 1	Dr Pieter Kok	E12A	23538	P.Kok@shef.ac.uk
Year 2	Dr Vitaly Kudryavtsev	E45	24531	V.Kudryavtsev@shef.ac.uk
Year 3	Dr Chris Booth	D24	23541	C.Booth@shef.ac.uk
Year 4 MPhys	Prof Mark Fox	E14	24527	mark.fox@shef.ac.uk
<b>Year Tutors</b>	<b>Astronomy</b>			
Year 1	Dr Susan Cartwright	D22	24572	S.Cartwright@shef.ac.uk
Year 2	Dr Stuart Littlefair	E47	24525	S.Littlefair@sheffield.ac.uk
Year 3 and 4 MPhys	Prof Clive Tadhunter	E37	24300	C.Tadhunter@sheffield.ac.uk
<b>Year Tutors</b>	<b>Medical Physics</b>			
All Years	Dr John Fenner	RHH	13687	j.w.fenner@shef.ac.uk
Secretary	Miss Susan Furness	RHH	12154	S.Furness@sheffield.ac.uk
<b>Dual Degree Contacts</b>	<b>Physics</b>			
Theoretical Physics	Prof David Whittaker	E12B	23537	D.M.Whittaker@shef.ac.uk
Chemical Physics	Prof Jamie Hobbs	F07	24532	jamie.hobbs@shef.ac.uk
Physics/Med.Phys	Mr Jim Weston	F25	24547	j.weston@sheffield.ac.uk
Physics/Philosophy	Dr Chris Booth	D24	23541	C.Booth@shef.ac.uk
Physics/Comp Sci	Prof Lee Thompson	E41	24577	L.Thompson@shef.ac.uk

<b>Study Abroad</b>				
Dr Susan Cartwright	N.America, Australasia	D22	24572	S.Cartwright@shef.ac.uk
<b>Lab Heads/Project Coordinators - Physics</b>				
Year 1	Dr Luke Wilson	E17	23532	Luke.Wilson@shef.ac.uk
Year 2	Dr Matt Mears	F39	24289	M.Mears@shef.ac.uk
Year 3 Standard	Dr Chris Booth	D24	23541	C.Booth@shef.ac.uk
Year 3 Industrial	Dr Alistair Buckley	E49	23597	alastair.buckley@shef.ac.uk
Year 4	Prof Mark Fox	E14	24527	mark.fox@shef.ac.uk
<b>Lab Head/Project Coordinators - Astronomy</b>				
Year 1	Dr Katherine Inskip	F29	24540	K.Inskip@sheffield.ac.uk
Year 2	Dr Stuart Littlefair	E47	24525	S.Littlefair@sheffield.ac.uk
Year 3	Prof Clive Tadhunter	E37	24300	C.Tadhunter@sheffield.ac.uk
Year 3 La Palma	Prof Vik Dhillon	E40	24528	Vik.Dhillon@shef.ac.uk
Year 4	Prof Mark Fox	E14	24527	mark.fox@shef.ac.uk
Year 4 in La Palma	Prof Vik Dhillon	E40	24528	Vik.Dhillon@shef.ac.uk
<b>Lab Head/Project Coordinators - Medical Physics</b>				
All Years	Dr John Fenner	OU142	13687	j.w.fenner@shef.ac.uk
Secretary Miss Susan Furness			12154	Hallamshire Hosp.
<b>Hicks Support</b>				
Secretarial Staff Hicks Reception		F10	23752	hicksstudentsupport@sheffield.ac.uk
Student Support Officers	Miss Sally Merrett Mrs Tracy Hilton	F10	23737 23706	phy_support@sheffield.ac.uk

Full Postal Address:  
Department of Physics and Astronomy  
University of Sheffield  
Hicks Building  
Hounsfield Road  
Sheffield S3 7RH

Fax Number: 0114 222 3809  
Web page: <http://www.shef.ac.uk/physics/>

# Central Support and Welfare

## University Health Service

Telephone: 0114 22 22100 (24 hours), NHS direct 0845 46 47 (24 hours)

Email: [health.service@shef.ac.uk](mailto:health.service@shef.ac.uk), please do not use for medical enquiries.

Website: <http://www.shef.ac.uk/health/>

## University Counselling Service

Provides a free and confidential service. The counsellors will not discuss your case in any way with any academics unless you ask them to do so.

Telephone: 0114 22 24134. Email: [ucs@sheffield.ac.uk](mailto:ucs@sheffield.ac.uk)

Website: <http://www.shef.ac.uk/counselling>

## Financial Help

The website gives information on short term emergency financial assistance, hardship loans, and student financial support. The Student Advice Centre can provide overall financial advice.

Website: <http://www.shef.ac.uk/ssid/finance>

## SSiD (Student Services Information Desk)

Information on Council Tax Exemption, loss of UCard, on-line personal information, module correction, examinations, Students' Charter, etc.

Website: <http://www.shef.ac.uk/ssid/index>

## Women's Safety and the Women's Minibus

If you have any worries about safety, or would like help solving any problems you or your friends are facing, please contact the Women's Officer at the Sabbatical Office, Level 4, Union of Student's Building, tel: 22 28608.

Email: [womens.officer@shef.ac.uk](mailto:womens.officer@shef.ac.uk)

A Women's minibus service operates every evening from the Union of Students to your door (within a 2 mile radius). See timetable on Union web pages.

Website: <http://www.shef.ac.uk/ssid/handbook/safety/women>

## Disabled and Dyslexia Support Service

The website gives information about services and support available within the University for visually impaired students, hearing impaired students and students with impaired mobility as well as additional support for students with specific learning difficulties including dyslexia.

Departmental contact: Prof John Cockburn

Website: <http://www.shef.ac.uk/disability/>

The University of Sheffield's online study skills website for dyslexic students is available at:

Website: <http://dyslexstudyskills.group.shef.ac.uk/>

**International Students**

This website gives information on re-entering the UK, extending leave to remain (short period, visa extension, opening a UK bank account).

Website: <http://www.shef.ac.uk/ssid/international>

Departmental contact: Dr Rhoda Hawkins

**Mature Students**

Website: <http://www.shef.ac.uk/ssid/welfare/mature>

**Nightline**

This is a confidential listening and information service which is manned by trained student volunteers between 8.00 pm and 8.00 am during term time. In addition to providing a listening service it also provides information ranging from phone numbers of taxi services, exam dates etc. It can be called free from the Halls of Residence or (0114) 22 28787 for the listening services and (0114) 22 28788 for information. These numbers are also listed on the back of your U Card.

email : [nightline@sheffield.ac.uk](mailto:nightline@sheffield.ac.uk)

Website: <http://www.shef.ac.uk/nightline>



## Members of staff with special responsibilities

- **Tutor for Theoretical Physics**

Professor David Whittaker (room E12B) has overall responsibility for the BSc and MPhys degrees in Theoretical Physics. You should talk to Professor Whittaker if you have any queries or comments which relate specifically to this degree; alternatively, you can always discuss the matter with your Personal or Academic Tutor, who will then consult Prof. Whittaker if it seems necessary.

- **Tutor for Medical Physics**

The Medical Physics side of the BSc and MPhys degrees in Physics with Medical Physics is run by Dr John Fenner who is based at the Hallamshire Hospital, but in the Department of Physics Mr Jim Weston (room F25) is responsible for liaison with Dr Fenner and for ensuring that the Physics side of the degree is running smoothly. Again, you can transmit comments to Mr Weston either directly or through your Advisor or Tutor.

- **Tutor for Chemical Physics**

Prof Jamie Hobbs (room F11) is responsible for students taking the single honours degree in Chemical Physics. Prof Hobbs acts as liaison to the chemistry department and oversees the physics part of the degree.

- **Tutor for Students with Disabilities**

If you have a disability which may have implications for your studies - for example, dyslexia, mobility problems, impaired vision or hearing, or photosensitive or uncontrolled epilepsy you should talk to Prof John Cockburn. Prof Cockburn will coordinate any special arrangements that have to be made to accommodate your problem, such as providing written transcripts of lectures or organising an alternative to computing courses.

- **Year Abroad Tutor**

The University of Sheffield has exchange programme agreements with various American, Canadian and Australian/New Zealand universities, allowing MPhys students to spend the third year of their course overseas. Most students do this as part of a named degree programme (Physics with Study in North America, Physics with Study in Australasia, Physics and Astrophysics with Study Abroad), but students on other programmes may also apply for "non-mandatory" placements, which are awarded competitively across the whole University. If you are interested, you should see Dr Susan Cartwright as soon as possible: as numbers are limited, transfers on to the named degree programmes are subject to approval by the International Office. . Placements are agreed in January of your second year, primarily on the basis of your first-year marks. Dr Cartwright also has responsibility for any overseas exchange students who may be taking courses in the Department of Physics and Astronomy during their stay in Sheffield.

- **Women's Issues**

If you are a woman student and you have a problem that you would rather not discuss with a male member of staff, please feel free to consult Dr Susan Cartwright or Dr Rhoda Hawkins. (You can also speak to a member of the Teaching Support Team in Hicks Reception, F10)

# 1 Aims and Objectives of the Department

The University expects its graduates to have acquired certain attributes. (See the [Sheffield Graduate](http://www.shef.ac.uk/sheffieldgraduate/), <http://www.shef.ac.uk/sheffieldgraduate/>). Many of these relate to good academic practice:

- a critical, analytical and creative thinker;
- an independent learner and researcher;
- information literate and IT literate;
- a flexible team worker;
- an accomplished communicator;
- competent in applying their knowledge and skills;
- professional and adaptable.

Throughout your programme of study at the University you will learn how to develop these skills and attributes. Your assessed work is the main way in which you demonstrate that you have acquired and can apply them. Using unfair means in the assessment process is dishonest and means that you cannot demonstrate that you have acquired these essential academic skills and attributes.

The Department of Physics and Astronomy aims to provide high quality education to students from a wide variety of educational and social backgrounds, consistent with the University's Mission "to maintain the highest standards of excellence as a research-led institution, whose staff work at the frontiers of academic enquiry and educate students in a research environment".

## Aims

The Department aims to:

- provide teaching at undergraduate and postgraduate levels that is informed and invigorated by the research and scholarship of the staff and is stimulating, useful and enjoyable to students from a wide variety of educational backgrounds;
- sustain a culture of teaching and research that is able to foster the free pursuit of knowledge and the rigorous analysis of information;
- meet a wide diversity of student interests and aspirations through degree courses which furnish a well-rounded understanding of the subject;
- encourage and develop the students' desire for learning and support development of appropriate interpersonal and transferable skills;
- produce graduates with well-developed practical, analytical, communication and problem-solving abilities, who readily find employment in industry, the professions and

- public service;
- provide, through the Foundation Year, access to degree courses for all those with suitable levels of academic ability even if lacking the usual school qualifications. Particularly for the 4-year MPhys degrees, the department also aims to:
- prepare students for a professional career or research degree based on physics, astronomy or medical physics;
- allow students to extend their knowledge and understanding in particular areas of interest.

## Objectives

In pursuit of the Department's aims, the Department offers a Foundation Year and a number of 3-year and 4-year undergraduate degrees. Objectives which are common to all our degree pro-programmes are that students should:

- gain a sound grasp of the fundamental principles of physics and/or astronomy (as appropriate to the degree programme);
- be able to tailor their studies to match their interests and abilities, by choosing from a range of Single and Dual Honours degree programmes, with the possibility of internal transfer in the first year, and by selecting appropriate optional courses later in their degree programme;
- develop an appreciation of logical analysis and scientific method and the knowledge, skills and attitudes expected of a professional scientist;
- become equipped with the mathematical, scientific and technical skills to apply physical principles creatively to the solution of problems and the acquisition, analysis and interpretation of data;
- be trained in sound laboratory techniques so that they can plan and perform experiments accurately, efficiently and safely, with due regard for the limitations of the equipment;
- acquire effective study habits and the ability to work efficiently both individually and as members of a team;
- develop the ability to communicate scientific results, ideas and arguments in a clear, logical and concise way, both orally and in writing;
- acquire computing skills to aid in data analysis, problem solving and report presentation;
- experience active learning through independent study, in addition to formal lectures;
- become acquainted with both traditional and modern methods of information storage, retrieval and dissemination.

**The objectives of the MPhys degrees are to enhance and extend the BSc, in that students should also:**

- conduct a challenging research project in a research environment, developing the ability to plan and carry out theoretical, computational or experimental scientific work;
- learn to communicate their results clearly and effectively, both orally and in writing;
- acquire the skills and knowledge necessary to proceed into postgraduate research and advanced study, if they have the aptitude and desire to do so#;
- take advanced courses relevant to modern research.

#It is possible to proceed to postgraduate research after a good BSc degree, but students with a BSc are indubitably disadvantaged when applying for PhD positions compared to similarly able students with an MPhys. Students intending to pursue a research career should therefore normally plan to complete the MPhys.

**For the Foundation Year, the objective is to:**

- bring students up to the appropriate academic level in Physics to enable them to pursue degree courses in the Faculties of Science and Engineering.

## 2 Teaching and Learning

### 2.1 General Information

All courses in the University of Sheffield are packaged into modules, worth a specified number of credits. A full-time student is required to register for modules totalling 120 credits in each academic year. You are not allowed to register for more than 120, even if you think you could cope with the work, and only in special circumstances - usually if you have failed several modules and have to repeat them to progress to the next year of your course - can you register for less than 120. Your 120 credits should be split as equally as possible between the two semesters; any imbalance greater than 70–50 is not permitted.

Week 7 in semester 1 and week 27 in semester 2 are designated as a “reading weeks”; these weeks are to give you more time to assimilate the lecture material – there will be no lectures or labs in these weeks unless in exceptional circumstances (e.g. if lectures have had to be postponed because the lecturer was ill).

Most modules in this Department are taught in the traditional way through 50-minute lectures, backed up by regular small-group tutorials (see section 7.3). Although most lecturers will endeavour to help you by handing out lecture summaries and copies of pictorial material, or by making material available online, it is important that you develop the ability to take good and effective lecture notes - this is not only crucial in ensuring that you make the most of your lectures, but is also a very useful skill to have in later life. Try to strike a balance between making notes and listening carefully. You should aim to understand the main points of the lecture as it happens, while at the same time making sufficient notes to enable you to revise and use all the material later. Be aware that lecturers may add details in the lectures which are not written down in the lecture handouts! It is good practice to read through your notes soon after each lecture and highlight key points. It is especially important to highlight anything you do not understand, so that you can identify problem areas for discussion in tutorials.

Although almost every module taught in the Department has a final examination, most also include various forms of continuous assessment such as marked homeworks, progress tests, essays or lab work. These are intended as teaching aids as well as assessment tools, and are designed to help you get the best from your course. Marked scripts from progress tests and assessed homeworks will be returned at lectures or through your tutors: take the time to read through them and consider any comments made by the marker. Ask your tutor, or the lecturer, if there is some aspect of the marking which seems unclear or wrong - if you have misunderstood something in the lectures, this is an opportunity to clarify the point, and if there really is a mistake in the marking we will be happy to correct it.

Lecture timetables can be found on the University and Departmental websites. Any alterations,

e.g. if a lecturer is ill or away, will be emailed to students and announced in lectures and/or posted on notice boards. The times of progress tests and deadlines for submission of assessed homework will be included in the year guide where possible, and otherwise posted on the departmental website on notice boards or stated in lecture handouts, at least a week in advance of the date in question.

If you are having difficulty with any of the lecture material you should not hesitate to ask questions, either directly of the lecturer or in your weekly tutorial. It is often helpful to get a different perspective on difficult material, so you should make use of the textbooks on your lecturer's recommended list, and indeed other appropriate textbooks available in the main library.

Copies of past examination papers are useful revision aids and can be obtained via the department web page <http://www.shef.ac.uk/physics/teaching/examination-papers>

It is generally true that the only way to learn to solve problems is to try to solve problems - make full use of any problem sheets that the lecturer may hand out, do past exam papers, look at problems set in recommended textbooks, and so on.

## **2.2 Information for Disabled and Dyslexic Students**

If you have a disability, medical condition or a specific learning difficulty, we strongly encourage you to contact the Disability and Dyslexia Support Services (DDSS). The DDSS is a confidential and friendly service which offers a range of support, including:

- liaising with academic staff and central services about disabled students' support needs;
- helping students to apply for Disabled Students' Allowances;
- organising support workers, e.g. note takers, readers, library support, scribes, interpreters;
- advising on specialist equipment and technology;
- referring Dyslexic students for study skill support at the English Language Teaching Centre;
- referring students who think that they might be dyslexic for diagnostic assessments with an Educational Psychologist;
- putting students in contact with local and national external agencies who offer support and advice to disabled people on specific issues;
- formalising alternative arrangements for examinations and assessments, e.g. extra time in examinations, reasonable adjustments to assessment tasks; or alternative assessment formats.

For further information, please contact the DDSS, The Hillsborough Centre, Alfred Denny Building, tel. 0114 22 21303, email: [disability.info@shef.ac.uk](mailto:disability.info@shef.ac.uk)

<http://www.sheffield.ac.uk/ssid/disability>

If you require alternative examination arrangements, please make sure that you contact the DDSS at the earliest opportunity.

### **2.3 Some Important Regulations**

Students admitted to the University of Sheffield are required to comply with the University's registrations procedures and will duly observe Our Commitment, formally known as the Student Charter, Statutes, Ordinances and Regulations of the University.

Your attention is drawn particularly to the following:

"Every student is required

- (a) to attend punctually and regularly lectures and classes;
- (b) to complete all written assignments, practical or other coursework;
- (c) to keep appointments to meet with the candidate's supervisor; and
- (d) to attend all examinations, as appropriate in each case to the relevant programme of study or research.

A candidate who fails to comply with this Regulation may be denied the credits assigned to the relevant units or other parts of the programme of study or dealt with under the Regulations as to the Progress of Students.

You are normally required to be in residence throughout the whole of each semester, and may not be absent during the normal working week without permission."

In cases of enforced absence you must fill in an Extenuating Circumstances form, complete with relevant documentation e.g. doctor's note and hand it into F10. The Department will monitor attendance at teaching sessions and take appropriate action in cases where this is not satisfactory.

You must attend all examination unless excused in writing by the Head of Year.

Failure to observe the above Regulations may disqualify you from receiving a degree from the University.

Our Commitment, formally The Student's Charter, is a partnership document between the University of Sheffield and its students. The Charter is intended to help students and staff work together in a spirit of cooperation. It sets out what is required of students, their legal rights and responsibilities and how to get the best out of their academic studies. The full text can be found



on the University's website: <http://www.sheffield.ac.uk/ssid/ourcommitment/index>

The General Regulations of the University can be found at <http://www.sheffield.ac.uk/ssid/admin>. They apply to all students in all faculties, and cover registration, examinations, progression, degree classification, disciplinary matters and appeals procedures.

### 3 Your responsibilities as a Student

The department expects the following of you:

- attend all lectures, labs and tutorials appropriate for the modules you are taking;
- complete any written assignments you may be given and hand them in promptly;
- have proper regard at all times for the interests and the safety of other members of the department (this applies particularly to working in the labs and the observatory).

The Department takes non-attendance at lectures/laboratories/tutorials etc seriously. If you continue to be absent from lecture without express permission the Department may ask you attend a Progress of Students meeting.

#### **Absence from the Department**

During your undergraduate career there may well be occasions when you cannot attend lectures because of illness, urgent personal business, etc. If you have to be away from the university for longer than a day or so, it is important that you let us know as soon as possible, and provide documentary evidence where appropriate. This will ensure that we do not start disciplinary procedures for poor attendance, and it will also let us make due allowance for any elements of continuous assessment that you may have missed or handed in late as a result of your absence.

The general guidelines are as follows:

- **Absence of less than a week**

If you have had a one-off minor illness and no assessment is affected, you should fill in a Self-Certification form [http://www.sheffield.ac.uk/polopoly\\_fs/1.409013!/file/ssc\\_form.pdf](http://www.sheffield.ac.uk/polopoly_fs/1.409013!/file/ssc_form.pdf) which does not require any supporting information. This should be completed if you miss a laboratory session, tutorials, project meetings etc. (see below). If you know in advance that you will miss a tutorial, for instance to attend a job interview, it is common courtesy to let your tutor know beforehand. The completed form should be handed into Hicks reception F10.

- **Longer absence, or failure to complete an item of assessment (test, homework or exam)**

In this case you are required to complete an Extenuating Circumstances form [http://www.sheffield.ac.uk/polopoly\\_fs/1.409009!/file/ex\\_form.pdf](http://www.sheffield.ac.uk/polopoly_fs/1.409009!/file/ex_form.pdf) together with supporting documentation (if applicable), such as a note from the University Health Service if you have been ill, a letter from your family in the case of a family bereavement or similar serious personal problem. We recognise that this may seem like unnecessary bureaucracy when you are in pain

or distress, but in fair-ness to your fellow students we must have some way to be sure that the problem is real. If only a single module is affected, with the assignment contributing <5% towards the module, the lecturer/module leader should be asked to sign the form, which should then be handed into Hicks reception F10. If multiple modules are affected and/or the assignment contributes >5% of the module grade, the Senior Tutor (Prof Cockburn) should sign the form, which you should hand into Hicks reception F10. If Prof Cockburn is away, the Director of Teaching (Prof Crowther) should be contacted instead.

The University's Examination Conventions <http://www.shef.ac.uk/ssid/exams/ugexams> state that "It is the responsibility of students to notify their tutors and supervisors, or other appropriate departmental staff, at the earliest opportunity if there are any extenuating circumstances that might have a bearing on their examination performance. [...] Notification of medical or personal circumstances, including assessments of dyslexia, which have not been submitted within any specified departmental deadline ... will not normally be considered by the meeting of departmental examiners". Therefore, it is very important that you make us aware of anything that might affect your assessment **as soon as you are aware of it**. If you wait until **after** you have done badly in an examination, or failed to meet a deadline, you should not be surprised to find that the lecturer or examiner is not sympathetic.

If your illness does not prevent you from taking a test or examination, but will disadvantage you relative to other students - for example, if you break your arm the week before an exam - let us know as quickly as possible so that appropriate arrangements can be made. We can also arrange for you to sit exams in private if you find that the environment of the exam hall causes you severe psychological distress - again, advance notice and a letter from Student Health or the Counselling Service are needed so that we can organise this.

## 4 Organisation of Courses

### 4.1 Degree Programmes in the Department

The following degree programmes are taught wholly or partly within the Department of Physics and Astronomy:

Course Title	3-year	4-year
<b>Single Honours Programmes</b>		
Physics Physics with Employment Experience	PHYU01/F300 PHYU31	PHYU02/F301 PHYU32
Theoretical Physics Theoretical Physics with Employment Experience	PHYU04/F344 PHYU28	PHYU16/F321 PHYU29
<b>Dual Honours Programmes</b>		
Physics/Astrophysics Physics/Astrophysics with Employment Experience	PHYU06/FF35 PHYU26	PHYU11/F3F5 PHYU27
Physics/Medical Physics	PHYU05/F350	PHYU10/F371
Physics/Philosophy	PHYU14/FV35	PHYU30/F3V5
Physics/Computer Science	PHYU18/F3G4	PHYU19/F3GK
Chemical Physics	CHMU03	CHMU08/F335
<b>Study Abroad</b>		
Physics (or Theoretical Physics) with Study in N.America Physics (or Theoretical Physics) with Study in Australasia		PHYU23/F305 PHYU24/F304
Physics with Study Abroad (2015/16 entrants) Theoretical Physics with Study Abroad (2015/16 entrants)		PHYU23/F305 PHYU24/F304
Physics and Astrophysics with Study Abroad		PHYU25/F3FM

The course codes are the University code, which is used in University documentation such as the degree programme regulations, and the UCAS code, which is what you put on your application form. University codes starting with CHM indicate a programme which is administered by Chemistry.

You may find that you are registered for a four-year programme even though you intend to do a BSc: this is not a mistake, but an attempt to protect you in case you change your mind (see below).

## **4.2 Relationships between the MPhys and the BSc**

The 4-year MPhys courses offer an opportunity to increase both the depth and the breadth of your knowledge of physics - they include all the BSc material plus advanced lecture courses, extended research projects and individually tailored directed reading modules allowing you to explore topics of particular interest to you - while the BSc degree continues to provide a sound training in all aspects of the subject within the confines of a 3-year programme.

### **Which should I choose?**

As a very general guide, the MPhys is certainly the better choice if you are intending to go on to do a PhD, and probably also if you want a physics-related career in industry, while the BSc is more suitable if your career plans are not directly physics-oriented, and especially if your plans include a specialist postgraduate training course such as teacher training, a vocational MSc course, etc. You would not be well-advised to take the MPhys if you find the material of the second year very difficult, and in recognition of this there is a regulation which states that you must have a grade point average of at least 59.5% in the second year to be progress on the MPhys. You should discuss your choice with your Advisor.

### **When must I choose?**

The degree programmes of the BSc and the MPhys are almost the same up to the end of second year, so from an academic standpoint you may delay your decision until the end of your second year.

However, you should be aware that the regulations imposed by your grant-awarding body are more stringent than this. If you want to change from the BSc to the MPhys, you must do so before the 16th month of your course (i.e. before Christmas of your second year), or you are likely to lose your Student Finance support. For this reason we will normally register you for the MPhys initially, even if you are sure you want to do the BSc, because by doing this we can safeguard your full entitlement if you should subsequently change your mind.

If you have entered your physics degree through the Science Foundation Year, you should note that the 16 months deadline starts from the start of the Foundation Year. Foundation Year students are normally registered for the BSc: if you want to do the MPhys you must contact Student Finance as soon as possible, since you only have until Christmas of your first "proper"

year to make the transfer.

### **4.3 Choosing and Changing Modules**

In the second half of the second semester you will take part in on-line module/unit choice, indicating which modules you intend to take the following year. However, it is possible that at some point you may decide that you have made a wrong choice. This is not a serious problem, but you must follow the correct procedures so that the appropriate administrative actions can be taken - otherwise you may find yourself, for example, trying to sit two examinations at the same time. What you have to do is complete module add/drop online via your MUSE account before the end of the *third* week of the semester.

### **4.4 Transferring between Degree Programmes**

Before taking such a step please see your Personal Tutor. They will be able to point out any consequences of your decision that you may not have recognised, and will also be able to advise you as to whether your proposed change really deals with the issues that have prompted you to consider it. If you and your Advisor agree that a change of programme is your best course of action, you should fill in a Change of Programme form and return it to the Hicks Reception F10 or SSiD with a signature from your Year Tutor.

Regulations for which modules are available to take on each degree programme can be found here:

<http://www.shef.ac.uk/physics/teaching/unit-module-choice>

# 5 Coursework, Assessment and Progression

## 5.1 Coursework

All course work must have the relevant cover sheet attached. You can obtain a cover sheet for a specific assignment from this link:

<https://sciencecoversheet.group.shef.ac.uk/>

You will need to use your MUSE login details. Print out the cover sheet and attach this to the front of your work. Cover sheets are available a week before the submission date.

Work can be submitted at any time via the drop box outside room F10.

Please note that cover sheets are specific to a given item of coursework and student. If you get a friend to print out a cover sheet your marks may not be credited to you.

Failure to hand in work without extenuating circumstances (e.g. doctor's note) will result in a reduced mark. The standard University policy for late submission of assessed coursework is a deduction of 5% of the total mark for each working day after the submission date. Work submitted more than five working days late will receive a mark of zero. In cases where other late submission policies apply, the lecturer or course administrator should have informed you of the alternative policy. You should consult the lecturer or course administrator if you are unsure of the rules on late submission. In general, small items returned on a rapid timescale, e.g. weekly homework, carry a "zero tolerance" policy where late submissions will not be accepted.

## 5.2 Assessment

Each module of your course is assessed individually, by means of some combination of final written examination, oral exam, essay, presentation, progress tests, assessed homework, etc. Material assessed during the course, e.g. homework, lab reports and progress tests, will be returned to you after marking so that you can learn from the comments made by markers, but end of semester exam scripts are retained by the University for reference. You may, however, ask to see your marked script: if you wish to do this, simply complete the form that will be emailed to you in the first three weeks of the semester following the exam

All end-of-semester examinations are assessed anonymously in accordance with standard University procedures. In addition, most of your assessed coursework will also be marked anonymously. However, in some cases (e.g. oral presentations and viva voce examinations) anonymous marking is not practicable, and in others, for example laboratory exercises, it is not appropriate: you will learn more from a lab exercise if you have the chance to discuss your work

with a demonstrator than if your lab diary is marked anonymously outside the lab.

Although it is possible to resit the majority of Year 1 and 2 modules in August, you are strongly advised not to make use of this option; you should aim to pass all modules at the first attempt. Resit exams will involve additional work and financial cost, and you will have to return to Sheffield in August (both semester 1 and 2 modules are resat during the same period). In addition, the mark for a resit Year 2 module is capped at 40%, so resitting year 2 modules may adversely affect your final degree classification. For students starting their studies in Sep 2012, year 1 resits will also be capped at 40%. There are no August resit exams for Year 3 and 4 modules.

It is generally not possible to resit coursework<sup>[1]</sup> and the module mark following a resit is composed of the new exam mark plus the original coursework mark. It is hence very important that you attempt and submit all coursework throughout the year; this will be your only opportunity to obtain the associated marks. The only circumstance in which resit of coursework is possible is when there is a well documented medical problem this is supported by a doctor's note, which should be submitted to room F10.

[1] Exceptions are where a single item of coursework contributes a significant fraction of the module mark, in which case it is possible to resit the course work. Coursework components that can be resat are listed in the Year 1 and 2 sections towards the end of this hand book.

### **5.3 Preparing for your Examinations**

Examinations for semester 1 modules are held in January/February, those for semester 2 modules are held in May/June. Resit examinations for both semesters are held in August (Level 1 and 2 only).

It is very important that you prepare properly for your exams, as these are the major factor contributing to your final degree classification. It is a good idea to practise timed questions from old papers. This will help you test how much you have retained and understood, and how long it takes you to answer a question. Copies of past exam papers are available via the Departmental website. You should ensure that you are familiar with the format of the paper and also the type and standard of questions. Your tutor may also cover past exam questions in tutorials. Model answers for examinations papers are not available, but tutors and lecturers will be happy to comment on questions that you have attempted.

Many lecturers will include revision lectures towards the end of their course where they may work through past exam questions – it is therefore very important that you attend all lectures. You are also welcome to contact your tutor for additional help in preparing for exams. Finally there is a data sheet attached to the exam papers. In addition to listing values of the most common physical constants, this sheet also contains a number of mathematical formulae. You



should be aware of which formulae are given as this will save you having to remember them.

Check the web site <http://www.sheffield.ac.uk/ssid/exams> for full details of all aspects relating to exams and exam regulations, including resits and academic appeals.

#### 5.4 Reporting of Marks

The University uses a 100 point scale for the reporting of module grades. The table below shows the correspondence between this scale and degree classifications.

Class	100 Point
I	70-100
II.1	60-69
II.2	50-59
III	45-49
Pass	40-44
Fail	1-39

The table is a guide, and not a definitive statement, because despite our best efforts exams do vary in difficulty and sometimes it is necessary to adjust the translation slightly to account for this.

**NC (not complete)** means you did not complete all the required work for the module, and is obviously classed as a FAIL;

**NA (not assessed)** usually means that you missed the examination for some good reason such as documented illness;

**DE (deferred)** means that the grades for this module have been delayed, e.g. by the need to hold oral examinations, and will be returned next semester.

Credits for a module are only awarded if you achieve a pass grade (i.e. 40 or above in years 1-3, 50 or above in year 4). Therefore a student who registers for 120 credits, but fails two 10-credit half-modules, will only be awarded 100 credits. This is important because it affects your chances of progressing to the next year of your course, and also restricts your choice of options - for example, if you want to take PHY216 in year 2, you must take and pass PHY111 in year 1, because PHY111 is listed as a prerequisite for PHY216.

## 5.5 Plagiarism and Collusion

In the course of your degree programme you will be expected to produce written work, such as laboratory reports, homework exercises and essays, that counts toward your module mark but is not written under exam conditions. As it forms part of your assessment, any such material should naturally be entirely your own work, not copied from published sources or your fellow students. Submitting material that is not your own work is regarded by the University as "use of unfair means". The following material is taken from the University's document on the use of unfair means in non-invigilated examinations (available from <http://www.shef.ac.uk/ssid/exams/plagiarism>).

### What constitutes unfair means?

The basic principle underlying the preparation of any piece of academic work is that the work submitted must be your own work. Plagiarism, submitting bought or commissioned work, double submission (or self plagiarism), collusion and fabrication of results are not allowed because they violate this principle (see definitions below). Rules about these forms of cheating apply to all assessed and non-assessed work.

Plagiarism (either intentional or unintentional) is the stealing of ideas or work of another person (including experts and fellow or former students) and is considered dishonest and unprofessional. Plagiarism may take the form of cutting and pasting, taking or closely paraphrasing ideas, passages, sections, sentences, paragraphs, drawings, graphs and other graphical material from books, articles, internet sites or any other source and submitting them for assessment without appropriate acknowledgement.

Submitting bought or commissioned work (for example from internet sites, essay "banks" or "mills") is an extremely serious form of plagiarism. This may take the form of buying or commissioning either the whole assignment or part of it and implies a clear intention to deceive the examiners. The University also takes an extremely serious view of any student who sells, offers to sell or passes on their own assignments to other students.

Double submission (or self plagiarism) is resubmitting previously submitted work on one or more occasions (without proper acknowledgement). This may take the form of copying either the whole assignment or part of it. Normally credit will already have been given for this work.

Collusion is where two or more people work together to produce a piece of work, all or part of which is then submitted by each of them as their own individual work. This includes passing on work in any format to another student. Collusion does not occur where students involved in group work are encouraged to work together to produce a single piece of work as part of the

assessment process.

Fabrication is submitting work (for example, practical or laboratory work) any part of which is untrue, made up, falsified or fabricated in any way. This is regarded as fraudulent and dishonest.

### **How can I avoid the use of unfair means?**

To avoid using unfair means, any work submitted must be your own and must not include the work of any other person, unless it is properly acknowledged and referenced. There are standard ways to reference sources, which are described fully in the Departmental guidelines on plagiarism at <http://www.shef.ac.uk/physics/teaching/plagiarism-collusion> . Note that you must still reference your source even though you have expressed the ideas in your own words (and minor rearrangement, such as replacing a few words or rearranging a sentence slightly, does not count as "your own words" and is most definitely plagiarism even if the source is referenced!).

Proper referencing of sources and appropriate use of source material constitutes an essential skill that you will need throughout your University career and beyond. You should read the Departmental guidelines referenced above carefully and work through the University Information Skills tutorial at [https://librarydevelopment.group.shef.ac.uk/shef-only/info\\_skills/plagiarism.html](https://librarydevelopment.group.shef.ac.uk/shef-only/info_skills/plagiarism.html), especially slides 10-14. Notice that on the cover sheet you attach to your work, you expressly declare that you have "read and understood the University's rules relating to plagiarism" - so claiming that in fact you did not understand is not a good excuse!

You are required to attach a declaration form to all submitted work (including work submitted online), stating that the work submitted is entirely your own work.

If you have any concerns about appropriate academic practices or if you are experiencing any personal difficulties which are affecting your work, you should consult your personal tutor or a member of staff involved with that unit of study.

The following websites provide additional information on referencing appropriately and avoiding unfair means:

The Library provides online information literacy skills tutorials  
<http://www.shef.ac.uk/library/services/infoskills.html>

The Library also has information on reference management software  
<http://www.shef.ac.uk/library/refmant/refmant.html>

The English Language Teaching Centre operates a Writing Advisory Service through which

students can make individual appointments to discuss a piece of writing. This is available for all students, both native and non-native speakers of English.

<http://www.sheffield.ac.uk/eltc/languagesupport/writingadvisory/index>

### **What happens if I use unfair means?**

Any form of unfair means is treated as a serious academic offence and action may be taken under the Discipline Regulations. For a student registered on a professionally accredited programme of study, action may also be taken under the Fitness to Practise Regulations. Where unfair means is found to have been used, the University may impose penalties ranging from awarding a grade of zero for the assignment through to expulsion from the University in extremely serious cases.

### **Detection of Unfair Means**

The University subscribes to a national plagiarism detection service which helps academic staff identify the original source of material submitted by students. This means that academic staff have access to specialist software that searches a database of reference material gathered from professional publications, student essay websites and other work submitted by students. It is also a resource which can help tutors to advise students on ways of improving their referencing techniques. Your work is likely to be submitted to this service.

## **5.6 Progression**

The only way to guarantee that you progress to the second year of your degree programme is to pass all the modules you are taking in your first year, even those which do not form part of the core of your programme.

If you do not pass all of your modules, you may be allowed to progress to your second year (a “con-ceded pass”), provided that:

- you have obtained at least 100 credits (i.e. you have failed not more than two 10-credit modules or one 20-credit module);
- you have passed all your core modules;
- your overall average grade, including failed modules, is at least 39.5%;
- you have achieved a mark of at least 30 in the module(s) that you failed.

Therefore, if you have failed any module with a grade of less than 30%, you must resit that module and improve your mark if you are to progress to second year. This is a University regulation and is not something in which the Department has discretion.

You should also be aware that a conceded pass is awarded at the Examiners' discretion: you do

not have a “right” to a conceded pass. In particular, the Department expects all students who fail a module at the first sitting to attempt the resit examination in August, even if their original failing grade was greater than 30%. Students who do not attempt the resit examination should not assume that they will nevertheless be awarded a conceded pass.

Students on the Theoretical Physics degrees must obtain a minimum overall average of 59.5% at the end of year 1 to remain on this course. This reflects the more mathematical nature of this degree in later years. In addition, students on the Year Abroad degrees must obtain an overall average of 59.5% for **both** years 1 and 2 to remain on these courses.

The University Regulations concerning examinations can be found at <http://www.shef.ac.uk/ssid/exams/ugexams>

If you are not initially permitted to proceed to level 2, you have two alternatives:

1. You may resit the failed module(s) in the following year as an external candidate. This will involve the payment of an examination fee. You will have to suspend your LEA support for a year, since you will not be a full-time student while you are doing this.
2. You may elect to retake the whole 1st year. In this case all your module grades for the first attempt are disregarded: in other words, you cannot “carry forward” passed modules, or parts of modules such as laboratory work, from your first attempt.

University Regulations allow you up to two resits of level 1 modules (for students commencing Y1 from September 2012). However, Regulations only allow a single resit of level 2 modules for students commencing Y1 from September 2012, so if you fail the August resit, you may not resit these again. If you enter Y3 with lost credits from Y2, the Y3 Year Tutor, Dr Booth, will call you in for an interview early in Y3: you should make sure that you attend this and take careful note of any suggestions he may make, as he has seen many other students in your position!

It is expected that all students will pass their exams at the first sitting, hence obtaining the 120 credits required to progress to the next year of their degree programme. In year 2 (and year 3 for MPhys degrees), you will normally be awarded a conceded pass with 100 or 110 credits, although you should recognise that this is at the discretion of the examiners and **not** a guaranteed right. However, the Regulations prescribe a minimum of 200 credits at levels 2 and 3 for an honours BSc degree, and 320 at levels 2-4 for an MPhys, so you should be aware that dropped credits at level 2 may have serious consequences later. For this reason, the Department normally expects all students to attempt the August resit for any failed modules.

MPhys students must achieve a minimum average of 59.5% for **both** years 2 and 3 in order to remain on the 4-year course, in part because of no masters awards are made below II.ii, and in part because the pass mark for level 4 modules is 50%. If a lower average is obtained, it will be

necessary to transfer to the corresponding BSc course.

The University regulations on progression can be found at <http://www.shef.ac.uk/ssid/exams/ugexams/progression>.

## **5.7 Your final degree class**

Your degree classification is based on your performance in years 2, 3 and 4. To graduate with a BSc honours degree you must have obtained at least 200 credits including not fewer than 90 credits at level F6, and pass your third year physics research project (PHY319, 341, 342, 346 or 391). Candidates for MPhys must obtain 320 credits including not fewer than 90 credits at level F7.

At the end of your programme of study, your degree will be classified on the basis of a calculation which takes into account both the weighted mean of your module grades and their median (i.e. the class in or above which half of your weighted module grades fall). Grades are weighted according to both the number of credits and the level of study: for a BSc degree, levels 2 and 3 are weighted 1:2, and for most MPhys degrees levels 2, 3 and 4 are weighted 1:2:2 (for Study Abroad degrees, to allow for the variability of course marks during the placement year, the weighting is 1:1:2). Note that the weighting is by year: if you took a second year course as a third year option, it will be weighted as level 3. Full details of the classification method are given in the General Regulations for First Degrees, which can be accessed from <http://www.sheffield.ac.uk/calendar>.

QAA regulations do not allow the award of a degree classification below II.ii for an undergraduate Masters degree (MPhys). This means that students in the 40–49% bracket will be awarded a BSc degree instead, despite the fact that they have completed 4 years of study. It is in fact very unusual for MPhys students to average less than 50%, because of the 59.5% cut imposed at levels 2 and 3, but it is a factor that you may need to consider if your year average is very close to the cut-off point. In addition, you should be aware that the pass mark for level 4 modules is 50%, to harmonize with taught postgraduate modules.

If you obtain 180 or 190 credits in a BSc degree, and your overall grade average (including the failed modules) is at least 39.5%, the Examining Board is permitted to recommend the award of a Pass degree (even though you have not reached the minimum credit level). Note that you cannot be awarded an Honours degree under these circumstances even if your grade average would normally correspond to an Honours class. This is why it is crucial to resit any modules that you may have failed in second year, even if you have enough credits for a conceded pass: if you do badly in third year, you may need those credits for an Honours degree.

If you fail to obtain enough credits for the award of a degree, you may resit failed modules on one further occasion (i.e. you may sit the August exams for any failed level 2 modules, or the

following year's exams for levels 3 and 4). Multiple resits are not permitted at levels 3 and 4. However, you will then only be eligible for a Pass degree, irrespective of your grade average.

### **Extenuating Circumstances**

The Department is concerned about the welfare of students and we encourage students to talk to their Personal Tutor, Senior Tutor, or another member of staff, if they have any problems. Please remember that it is easier to solve a problem as soon as it arises.

Advice on reporting extenuating circumstances is prominently displayed on the Student Services Information (SSiD) website and a special circumstances reporting form is available from Students Services, at <http://www.sheffield.ac.uk/ssid> or from The Hicks Reception (F10). The form should be used to report the following circumstances:

- Medical circumstances (sickness, injury, surgery/hospitalization etc.) which have resulted in a period of short or long term absence and/or have affected performance or examinations/ assessment.
- Other personal circumstances which have resulted in a period of absence and/or which have affected performance or examinations/assessment. Examples include illness or bereavement in your immediate family, being the victim of a crime such as burglary or assault, or having been prevented from attending an examination by unforeseen transport problems.

Note that the University's Examination conventions require you to report any extenuating circumstances "at the earliest opportunity". If you have a problem that you believe is affecting your work, do not wait until you have failed before reporting it.

The TPO (Taught Programmes Office) emails all students one month before the final examination period to remind students to notify the Department of any special circumstances which should be considered by the Examiners.

For more advice on what to do in case of problems, visit <http://www.shaf.ac.uk/ssid/sos>.

### **5.8 Note on Calculators**

The University has restrictions on the type of calculators which can be used in examinations. The regulations are designed primarily to forbid the use of calculators which can store information, thereby (in non-"open book" exams) giving students who have them an unfair advantage over those who do not. Before you go into the examination hall with a calculator, you

should ensure that it has an official University “approved” sticker on it. These can be obtained by presenting your calculator for inspection at the Student Services Information Desk in the Students’ Union. If you do not do this, you run the risk of having your calculator confiscated for the duration of the exam - although you will be provided with an approved substitute, using an unfamiliar machine will certainly lose you time and increase the risk of numerical errors.

Website: <http://www.shef.ac.uk/ssid/exams/calculator>



# 6 Student Evaluation

## 6.1 Evaluating your programme of study

Whilst you are a student, you will have opportunities to evaluate the quality of your programme of study and its individual units. Student evaluation of courses is required by University policy; more importantly, it is an essential part of assuring the quality of our courses and provides us with valuable feedback on your experiences during your programme of study.

We will ask for comments on your experience of each level as a whole in each session, in addition to commenting on individual units. The evaluation includes:

- the overall coherence and content of your programme;
- tutorial support;
- assessment deadlines and feedback;
- appropriateness of the teaching methods;
- availability and suitability of learning resources.

For individual modules, anonymous questionnaires are conducted via a web based system at an appropriate point in the course. It is important that you take the time to fill these in, and that you do so honestly and fairly. It is always easier for us to respond positively to comments if they are detailed and constructive - for example "the handouts for this course are useless" gives the lecturer little help in deciding what to do about it, whereas "the handouts do not make it clear which parts of the material are examinable, and there are not enough problems provided" is much more useful. Even if you have no particular point to make, it is important that you take the time to fill in the form: it is very hard to know whether to change something if only 10% of students have made any response at all.

The tabulated results of the questionnaires and lecturer responses are posted on the Undergraduate Students' Information board. Year questionnaires are similar and are distributed towards the end of Semester 2. Questionnaires are considered, along with examination results, at a special meeting of the Departmental Teaching Committee in the summer. Be assured that student feedback often does lead to changes being made to units and programmes.

You can also make comments about the courses informally to members of staff such as your personal tutor, academic tutor, the Year Tutor, or the module head. In addition, the Department has a Staff-Student Committee which meets twice a semester and includes representatives from each year of the undergraduate course. The names of the student reps should be posted on the appropriate year notice board: if they are not, please ask the Year Tutor to do so. We have implemented a Quick Response (QR) system for reporting instant feedback from you to us.

Please be aware that many aspects of the course are fixed well in advance – for example, exam questions may have to be set before the lecturer concerned has even started giving the course - and so it may not always be possible to make dramatic changes in response to criticisms even if everyone agrees that they are well-founded.

### **Participating in other evaluation processes**

In addition to the student evaluation operated by the departments, you may also be asked to participate in other surveys throughout your study. Final year students are asked to take part in the National Student Survey (NSS), which seeks views from students on their overall satisfaction with their programme of study. The results of this survey are published.

### **6.2 Student Representation Opportunities**

The University places great value on the opinions of its students and there are numerous opportunities for you to get involved, to have your say and also to represent the views of other students. These opportunities are supplemented by invitations to participate in a range of surveys and evaluations on various aspects of your course and the University in general.

#### **What student representation opportunities are available?**

In the department, we have a Staff-Student Committee consisting of student representatives together with relevant academic staff. Getting involved will enable you to join in discussions and decision-making ranging across such topics as:

- student feedback on the quality of teaching;
- inputs to the planning of curriculum changes;
- departmental/school services (e.g. hand-in arrangements, office opening times, study facilities, availability of personal tutors);
- improving channels of communication with students.

The Department will also ask one or more members of the Staff-Student Committee to sit on the Department's Teaching Committee.

Students are encouraged to approach any of the student representatives with any problems or suggestions relating to the Department of Physics & Astronomy. The representatives will make themselves known early on in the academic year and will be happy to help at any time.

Students in the Department also run the Physics Society, PHYSOC, and will be advertising this early in the semester. Any suggestions regarding excursion, guest lectures, staff-student activities etc., are more than welcome.

In the wider Faculty of Science, there are reserved places for students on the Faculty Learning & Teaching Committee, which deals with

- policy developments;
- student surveys;
- reviews of learning and teaching quality;
- design of new degree programmes and amendment of existing programmes;
- reflections on external reviews of the University.

This is rewarding work which will build your communications skills, offer you the opportunity for valuable networking and contribute to your personal development with skills to put on your CV.

The terms of reference the Committee require it to stimulate students' engagement with learning, teaching and assessment, to ensure that students' views are appropriately represented in Faculty learning and teaching discussion and to enhance the quality of the student experience. Consequently, contributions to this Committee are especially welcome from amongst the student body.

Information on the Faculty Learning & Teaching Committee can found at <http://www.shef.ac.uk/lets/strategy/committees/index>, and details regarding student representation on <http://www.shef.ac.uk/lets/student>. The dates of Faculty meetings are given at: <http://www.shef.ac.uk/diaryofevents/>.

For more information on student Faculty representation and student Faculty forums please contact the Learning and Teaching Support Unit, Ms Marie Evans ([m.evans@sheffield.ac.uk](mailto:m.evans@sheffield.ac.uk))

# 7 Tutors

## 7.1 Your Personal Tutor, Academic Tutor, Year Tutor and Senior Tutor

There are four people who have specific responsibilities towards you as a student. These are

- your Personal Tutor,
- the Year Tutor(s),
- the Senior Tutor,
- your Academic Tutor, Astronomy problem class leader and Mathematics tutor.

The following sections explain just what each of these people is supposed to do for you and set out the circumstances in which you may need to talk to them. You can of course talk to other people as well - if for some reason you do not feel able to discuss a particular problem with either your Personal Tutor or the Senior Tutor, we hope that you will feel able to approach some other member of staff with whom you are more at ease. Your welfare is important to us - if you need help, please do let somebody know about it.

## 7.2 Your Personal Tutor

Your Personal Tutor will be a member of staff who you will be familiar with through regular contact throughout your degree. The task of your Personal Tutor is to help you plan your degree programme so that it best reflects your current interests, your future aspirations, and your academic strengths. In addition your Tutor can be approached for help with any problem, academic or personal.

It should be stressed that your Tutor is there to provide positive and constructive support. For example, if you have not performed as well as you had hoped in a recent set of exams your Tutor will not reprimand you on your performance but will seek to discover reasons for these problems and discuss ways to avoid them in the future. Although you will meet your Tutor regularly at academic sessions you will be given the opportunity to arrange additional meetings at appropriate points in your course, during their drop-in hours. These meetings will give you the opportunity to discuss your progress so far and your module choices for the following semester. Your Tutor will be able to guide you in selecting optional modules: for example, they will be able to tell you how your choice of level 2 optional modules affects the options you will be able to take at level 3. Of course, you do not have to follow this advice - the final decision as to the course of your degree programme is always yours. Towards the end of your course you may wish to discuss possible careers with your Tutor. You are welcome to contact them at any time to discuss an immediate problem.

You should ask to see your Tutor if:

- you are considering changing your choice of modules or your degree programme;
- you have personal problems which you believe are affecting your academic performance such matters are treated as confidential);
- you want to discuss career issues which may have an impact on your choice of course (e.g. if you are considering whether or not to go on to postgraduate study).

In addition your Personal Tutor may ask to see you if the Senior Tutor or your Year Tutor has reported problems - if you are missing labs or lectures, for example, or if a particular lecturer feels you are not coping academically with his/her course. If this happens, you should make every effort to arrange a meeting as soon as possible. Your Tutor is on your side, and will be looking for a way to deal with the problem so that it does not prevent you from completing your degree programme as you would wish. It is in your best interests to help them to do this!

You can make an appointment by calling in to their office during their drop-in hours, or by email. If you are unable to contact your advisor because they are away from the Department, you should contact We hope that all our Tutors are sympathetic and helpful. However if, for any reason, you wish to change your Tutor please go to the Hicks Reception in room F10 who will assign you to an alternative Tutor after discussion with the Senior Tutor for the Department.

### **7.3 Your Academic Tutor - Tutorials**

The role of your academic tutor is to help you with the day-to-day problems of mastering the material you are currently being taught. You will meet your tutor once a week, in a small group of approximately 6–7 students, during your first and second years. There are no formal tutors in Years 3 and 4 but students are encouraged to contact the appropriate lecturer for help with academic questions.

Tutorial groups are normally arranged in the first week of the academic year. The time of the weekly tutorial may be assigned, or you may be left to decide it with your tutor. If your timetable turns out to be incompatible with your group, perhaps because of a different choice of options, consult the Year Tutor, who will be able to change your group assignment. It would be helpful if you could first ask around your colleagues in case others have the same problem, as it is easier to deal with a whole group of people at once than to make many individual changes, but the most important thing is that you let us know of the difficulty quickly. Otherwise you will be depriving yourself of valuable help in tackling your courses, and you will also run the risk of being reported for poor attendance.

Your tutor is your main source of help and advice about the academic aspects of your course. Your weekly tutorials will cover topics such as problem solving, difficult aspects of the lecture

material, writing lab reports and so forth. You are required to attend these weekly sessions. In some tutorials you may need to submit work, the marks for which will contribute to the module mark. You are also welcome to contact your tutor for additional help, for example if you have additional questions, need help with a specific problem or require help preparing for examinations.

The tutorial system is designed to help you assimilate information, develop problem solving techniques and prepare effectively for examinations. However you will only obtain the full benefits of this system if you prepare for and attend tutorials, and actively participate in the tutorial discussions.

In astronomy, tutorials are replaced by rather larger problems classes typically consisting of about 20 students. Each problems class in years 1 and 2 has both a leader (usually a member of staff) and an assistant (usually a postgraduate student), so you will still get individual attention despite the larger groups.

#### **7.4 Year Tutors**

The Year Tutor is responsible for the administration and organisation of each year's courses in Physics and Astronomy. He or she deals with organisational problems such as timetable clashes, assigns students to lab classes and academic tutors, monitors students' attendance and academic performance, and oversees the final assignment of module grades.

Under normal circumstances you should have no need to contact the Year Tutor, except perhaps to deal with timetable problems if your assigned lab class or tutorial group meets at a time when you have lectures in another subject. You may wish to see him or her if you feel there is some general organisational problem - for example, if you consistently get three homework assignments in one week and none in the next - but you can equally well talk to your own physics, astronomy or mathematics tutor who will pass the information on to the Year Tutor and any other people involved.

The Year Tutor will ask to see you if some aspect of your progress has been reported to him or her as unsatisfactory. This probably means you have been missing labs or lectures or failing to hand in homework. If you are summoned to such a meeting, you must go, otherwise the Year Tutor will start the formal disciplinary machinery which in the worst case could lead to your exclusion from the University.

## **7.5 Senior Tutor**

The Senior Tutor has overall responsibility for all matters that involve the welfare of individual undergraduate students. They chair the Special Circumstances group that makes recommendations to the Exam Board each semester, as well as overseeing student attendance and engagement. They advise students on matters such as taking leave of absence. They respond to student enquiries on diverse matters (missed exams, special circumstances, change of status etc.). They oversee the personal tutorial system, and re-allocate personal tutors should students wish to change, working closely with the Student Support Adviser. They monitor attendance at lectures and tutorials, and work with Personal Tutors to identify and chase up students who risk becoming disengaged from their studies. The Senior Tutor is also the Disability Liaison Officer.

## 8 Departmental Resources

### 8.1 The Hicks Reception (F10)

The Hicks Reception, room F10 is where you can go to:

- hand in homework, lab reports, etc. and also collect returned work;
- obtain Extenuating Circumstances or Change of Status forms;
- hand in copies of doctor's notes or other official paperwork;
- leave messages for members of staff if you can't find them.

### 8.2 Information Technology

The physics and astronomy laboratories are equipped with PCs which have various general and special-purpose data analysis software installed. In addition, the Department has installed physics-related software on the University network which can be accessed by undergraduates with IDs associated with the physics department. If you want to know more about what is available, you should talk to Prof Lee Thompson (room E41), who is the member of staff with responsibility for undergraduate computing facilities.

### 8.3 Careers advice

The University has a Careers Service (388 Glossop Road) but we recognise that some people may find it easier to talk to a fellow physicist first and Dr Alastair Buckley (room E49) acts as a liaison between us and the Careers Service. He will be able to discuss with you the career paths that will be open to you when you graduate, and suggest people to talk to at the Careers Service.

For those of you who are considering taking a PhD, the Department has a Research Prospectus available on request from the office, and your Advisor will be able to explain the various topics and suggest who you should talk to if you want to find out more.

### 8.4 Seminars and Colloquia

Much of the physics you learn in your degree programme is necessarily well-established, long-understood material. But physics is an active field with exciting research going on in numerous areas ranging from pure curiosity-driven study to important industrial applications. To give some flavour of this the Department hosts a variety of seminars and colloquia throughout the academic year, some organised by the department, some by the Yorkshire branch of the Institute of Physics (IoP), and some by the various research groups. Many of these, especially the departmental and IoP colloquia, are designed specifically to be suitable for undergraduate students and are advertised by notices around the department.



More social events, such as trips and the annual Physics Ball, are organised and advertised by the Physics Society or PhySoc.

## 9 University Resources

### 9.1 Libraries

Some lecturers will explicitly require you to do some reading in the research literature as the basis for an essay, or to prepare a presentation, but even where this is not the case you will always benefit from doing some background reading around your lecture material - different authors will present the topic in different ways, some of which you may find easier to grasp than the approach favoured by your lecturer, there may be useful background detail or interesting extensions into more advanced material, textbooks will usually offer additional problems to practise on, and so forth. The libraries you will generally find useful as a physics student are the Information Commons, Western Bank Library near the Arts Tower and the Applied Science Library near Blackwells bookshop on Mappin Street.

The Information Commons is the University's state-of-the-art study hub which is open 24 hours a day, seven days a week. Here you will find undergraduate text books, a large number of computers, wireless networks for your laptop, printing facilities and a café. The Western Bank library may contain more specialised books and research journals which you may need to consult for more advanced modules and projects in years 3 and 4. Note that many journals are now available electronically. The Applied Science Library also holds many books useful to physics students. The Star electronic catalogue, accessible through the University web site, tells you where any particular book is held, how many copies there are, and whether they are out on loan.

If you need a book which is not in any of the university's collections, it can be obtained by Inter-Library Loan. This requires authorisation by a member of staff: consult the Departmental Office for details. If you feel that the book is sufficiently relevant to one of our courses that it really should be in the main library, you should contact Dr Katherine Inskip, room F29, the Department's library representative.

### 9.2 Computing Facilities

University Computing Services provide an extensive campus network of PCs, including several public PC rooms in the Hicks Building. All new students will be allocated a username allowing them to make use of this service - if you don't have one you should go to the CiCS main reception with your UCard. The software provided includes general-purpose facilities such as word processors, spreadsheets, graphics and Internet access, as well as some specifically physics-related interactive packages which are accessible to those with "physics department" username. Most students in this department will learn to use these packages in the

introductory computing course which forms an integral part of the first-year physics laboratory work. For further information on courses, services, etc., see <http://www.shef.ac.uk/cics/services>.

If you have your own PC, you should be aware that the university has site licenses for several useful pieces of software, so it may be possible for you to purchase copies for a nominal cost. For details ask Computing Services (e-mail [advisory@sheffield.ac.uk](mailto:advisory@sheffield.ac.uk)).

### **9.3 Student Services**

A convenient way to get general information on many University resources is the Student Services Information Desk located in the Students' Union next to the Student Advice Centre. The Information Desk has stocks of useful forms, including Module Add/Drop and Change of Status forms, assorted financial forms, immigration documents, calculator approval for examinations, and so on. This service is open from 9 am to 5 pm on weekdays.

Forms can also be downloaded from the following address:  
<http://www.sheffield.ac.uk/ssid/forms>

## 10 Disciplinary and Grievance Procedures

We pride ourselves on providing a friendly and open learning environment with close contact between staff and students. If problems do arise, we endeavour to sort them out informally within the Department, through our system of Personal Tutors, Year Tutors and Senior Tutor. Usually this is by far the best way to deal with such issues, because it allows them to be resolved quickly. However, it is of course necessary to have formal procedures which can be invoked if the initial informal approach fails to produce a solution satisfactory to all parties.

### 10.1 Disciplinary procedures

Occasionally for some reason a student does not adjust well to university life, and therefore does not make the academic progress we expect of them. Unfortunately it is necessary to have a formal procedure for identifying such students and, in the last resort, applying sanctions. This section summarises the procedure, and you can ask your Personal Tutor for more details if you wish.

The person responsible for dealing with disciplinary matters within the Department is the appropriate Year Tutor. You will be reported to the Year Tutor if your attendance at lectures, labs or tutorials is unsatisfactory – that is, if you have missed a significant number of lectures, labs or tutorials – or if you consistently fail to hand in homework, lab assignments, or any other compulsory written work.

If you are reported to the Year Tutor, he or she will arrange for you to be interviewed by the Departmental Progress of Students Committee. The committee will explore with you the reasons for your unsatisfactory performance, and will set milestones that you must reach in future. The interview and its conclusions will be entered on your student record, and you will be sent a written copy of its findings.

If you fail to reach the milestones set in your interview, or if your academic performance gives some other cause for concern, you will be reported to the Faculty Progress of Students Committee, which is part of the University's formal disciplinary mechanisms. In the worst case, this can lead to your being expelled from the University altogether.

We hope that by identifying students at risk of this early in their courses we can help them to get back on track and achieve their career objectives.

At this point it may be useful to repeat that we do not wish to cause further stress to students who are missing lectures because of illness or a serious personal problem. If you are sick, please get a doctor's certificate and send it to the F10 Office as soon as possible; if there is some other serious problem, see your Personal Tutor or the Senior Tutor. This will

not only prevent you being reported as absent; it may also permit the Year Tutors to make allowances for the time you have missed, for example by adjusting your lab and homework marks.

## **10.2 Grievance procedures**

If you think that you have been treated unfairly in any respect, and you feel unable to raise the matter informally with the member of staff in question, the first thing you should do is to discuss it with your Personal Tutor, the relevant Year Tutor or Senior Tutor. They will then investigate and either rectify the problem or, if they are satisfied that there is no real cause for concern - for example, if you have queried the mark you received in an examination, but having looked at your script they are happy that the mark given does properly reflect your performance - then they will explain to you what steps they have taken and why they do not believe that there is a problem. If you are still unhappy, you should make a formal written complaint to the Head of Department, setting out clearly the nature of your complaint, the evidence that you have to support it, the actions that have been taken so far and the reason that you remain unsatisfied. It is University policy that such a formal complaint must have a response within ten working days (though if the case is complicated this response may only be a description of the steps currently being taken to investigate it, rather than a complete answer to the complaint). If you are still unhappy after this, you can take your complaint beyond the Department to University level. For academic matters, i.e. disputes about module grades or degree classifications, the University has a published academic appeals procedure, details of which are available from the Student Services Information Desk. There is also a formal procedure for dealing with accusations of personal harassment, and a leaflet explaining the University's policy on this is also available from Student Services. For any other type of complaint, you should write formally to the Registrar and Secretary of the University, setting out your case as you did in writing to the Head of Department.

# 11 Safety

The University is committed to ensuring a safe working environment for both students and staff. To this end you must obey any safety instructions, either written or verbal. In particular:

- Smoking is not permitted within any part of the Department. This includes the entrance of the Hicks Building.
- Food and drink. You are not permitted to consume food or drink within any of the teaching or research laboratories.
- Fire. You must familiarise yourself with the local fire procedures. If you discover a fire you can contact the emergency services by calling 4444 from the internal phone system. If you hear the fire alarm then you must leave the building immediately via the nearest safe exit. You must not congregate near to the entrances of the building but move towards the concourse in front of the Students' Union building. The fire alarm is tested every Monday at 10.00 am and there will be a practice evacuation of the building early in Semester 1.

## 12 Higher Education Achievement Report

The University is committed to recognising the wide range of curricular and extra-curricular learning experiences that students gain during their time at Sheffield. It has introduced a new kind of degree transcript that is now offered to all new undergraduate students: the Higher Education Achievement Report or 'HEAR'. This transcript has been developed over the past four years, through a national project involving other universities, employers and students.

You will be issued with your HEAR alongside your degree certificate. As well as including your degree classification, an overview of your qualification and a list of your modules and grades, the HEAR will include more detailed information about your chosen course. It will also give details of non-academic achievements that the University or the Students' Union can verify, to provide you with a broad picture of your university achievements. These might include additional modules you have taken (e.g. a language course), awards such as the Sheffield Graduate Award or Skills for Work Certificate, and other extra-curricular activities such as volunteering or mentoring.

You will have the opportunity to view your HEAR as it grows during your time at Sheffield. You can use it as support for the Sheffield Graduate Development Programme, by providing a basis for reviewing your progress and thinking about your personal development. You are also encouraged to refer to your HEAR in discussions with your personal tutor and the Careers Service, to help you identify and articulate the skills you are gaining, and reflect on how you can build on these to achieve your future goals.

The University will issue you with an 'interim' HEAR at various points during your degree, and you can share this with employers and others to provide evidence of your university achievements as you begin to apply for internships, jobs or further study. You are encouraged to take advantage of opportunities to gain recognition for activities you undertake outside the curriculum. This will help you demonstrate how you have made the most of your time at university, and gained valuable skills and experience that will enhance your employability and help you achieve your potential. There will of course be some things that the University cannot verify. However, employers are aware of this and will be equally interested in how you present yourself in CVs, personal statements, portfolios and interviews. If you refer to your additional activities and achievements in these other documents and during interviews, you will not be disadvantaged – and if you have used your HEAR to help you think about where you want to go and how all of your skills and experiences prepare you for this, you will be well set to impress!

For more information about the HEAR, visit [www.sheffield.ac.uk/hear](http://www.sheffield.ac.uk/hear).

## 13 Departmental Committees

A number of committees are involved in the running of the Department. Strategy (including new academic appointments) is the responsibility of the Executive Committee which is chaired by the Head of Department and meets approximately every two months. The Teaching Committee looks after all aspects of teaching including quality control, programme development. This committee is chaired by the Director of Teaching and includes student representatives. It typically meets every two months. There are also committees to cover research, health and safety and graduate students.

All committees feed into the Executive Committee and also staff-meetings which are attended by all staff in the Department. The Staff-Student committee has representative students from all years and a range of academic staff, normally including the Director of Teaching and/or Head of Department.

The Department's Teaching Committee is ultimately responsible for all aspects of teaching, including development and quality control. This committee meets regularly throughout the academic year. Before each meeting, staff are invited to raise issues for discussion. Relevant staff are invited, where appropriate, to attend teaching committee meetings to discuss particular issues. Over the summer a Teaching Committee meeting is held to review all taught modules with input consisting of exam results, the results of student questionnaires, issues raised by students at staff-student committee meetings etc. If an issue with a module is identified the relevant staff are asked to respond. The Director of the Department's Teaching Committee sits on the Faculty's Learning and Teaching Committee.

Two external examiners cover undergraduate teaching. For 2015/16, external examiners for undergraduate programmes are as follows:

**Dr Jim Robinson** (University of Warwick) for Physics and Medical Physics programmes,  
**Prof Phil James** (Liverpool John Moores University) for Astrophysics dual programmes.

These examiners review all Year 2, 3 and 4 exam papers and make two visits to the Department to review the semester 1 and 2 examination results. They also attend the final examiners' meeting where degree classifications are decided. There are no vivas; however, the external examiners meet with students from all Years during their Autumn visit to the department. Each year the external examiners write a report which is forwarded to the Department and the HoD is required to respond to any issues raised.



## Dates of Standard Semesters - 2015/16

### Autumn Semester

	[Intro Week 21 September - 26 September 2015]	
Monday	28 September 2015	
Saturday	19 December 2015	total 12 weeks
	[4 Weeks Christmas vacation]	
Monday	18 January 2016	
Saturday	6 February 2016	total 3 weeks

### Spring Semester

Monday	8 February 2016	
Saturday	19 March 2016	total 6 weeks
	[3 weeks Easter vacation Easter Day 27 March 2016]	
Monday	11 April 2016	
Saturday	11 June 2016	total 9 weeks

If you have any suggestions how we might improve the material presented in this guide please contact Sally Merrett or Tracy Hilton in F10.

---