

Guide for Students

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“M” indicates Microelectronics Building, “IRC” indicates Interdisciplinary Research Centre, “F & G” indicates Battcock Centre and “K” indicates the Kavli Building.

Administration

The Department’s central administration is located in the Bragg Building. Enquiries are usually dealt with via Room 206, between 9:00 and 12:30, and 14:00 and 17:00.

Aims and Objectives

The Quality Assurance Agency, through its institutional audit of the University, is concerned with the assurance of the quality of teaching and learning within the University. The University in turn requires every Department to have clear aims and objectives and to monitor their teaching and learning activities and consider changes where necessary, and meet various criteria concerning management of the quality of its teaching provision. Students play a vital role in assisting with this quality assurance, and the Department welcomes constructive comment via the Staff-student Consultative Committee.

Appeals

Information about the procedure for examination warnings, allowances and appeals is available at <http://www.admin.cam.ac.uk/students/studentregistry/exams/undergraduate/exams.html>.

Astronomical Society (CUAS)

Astronomy is a popular branch of physics and the Astronomical Society provides an interesting series of lectures on Wednesday evenings during the Michaelmas and Lent Terms, details of which can be found on the society’s web page - <http://www.cam.ac.uk/societies/cuas/>. Members of the research groups of the Cavendish Laboratory concerned with astronomy are often lecturers in this series.

Bicycles

The Cavendish Laboratory provides several cycle sheds and racks in which you may leave your bike, but it should be locked with a sturdy security device when not in use. Several serious accidents occur every year involving students cycling in Cambridge: please cycle with care, use proper lights when required and wear a safety helmet.

Books

The Physics Course Handbook lists the most important books to be used in conjunction with the lecture and practical courses. Reading and working through parts of these books are indispensable exercises which are usually considered part of the course. Many of the books are expensive, but they may be obtained at substantial reductions by attending book sales and looking out for bargains listed on College noticeboards and those in the Cavendish. All books recommended for Part I should be available in College libraries or the Rayleigh Library. If you notice any omissions, please fill in a request slip to ensure that the book is ordered.

Bookshops

The main bookshops from which you should be able to obtain the recommended books are Heffers, CUP and Waterstones. And then there is always Amazon. Note: a 20% discount is available at the CUP bookshop with a University Card.

Buildings

The present Cavendish Laboratory comprises the extensive buildings south of Madingley Road, the first of which opened in 1973. A map of the Cavendish Laboratory site is shown on the inside back cover. The original buildings on this site were the Rutherford, Bragg and Mott Buildings, named after former Cavendish Professors, and the workshop building between the Rutherford and Bragg buildings. These have in the past few years been supplemented by a building for the Interdisciplinary Research Centre (IRC) in Superconductivity (now the Kapitza Building), and a further building for the Microelectronics Research Group and Hitachi Cambridge Laboratory. Further recent additions to the site are the Magnetic Resonance Research Centre of the Chemical Engineering Department, the first phase of the Physics of Medicine (POM) building, which houses the laboratories for the Biological and Soft Systems sector (BSS), the Nanoscience Centre and the Terrapin Building. The most recent addition is the Battcock Centre for Astrophysics, which houses the Astrophysics Group and is located on the north side of Madingley Road close to the Institute of Physics.

Calculators

When considering which calculator to buy, you may wish to bear in mind that only certain types are permitted for use in Tripos examinations. Among these are the Casio models available from the Cavendish Stores. Calculators will also need the 'official' Board of Examination yellow sticker which can be obtained from the Board of Examination offices in Mill Lane.

CamCORS

The supervision reporting system. See Databases (below)

CamSIS

The student information system. See Databases (below)

CamTools

CARET's Virtual Learning Environment. See Databases (below)

Canteen

See Common Room (below).

Careers

The University Careers Service is located in Stuart House, Mill Lane (telephone number 338288), and is financed by the University to provide students with information about careers and assistance with application processes. The Service maintains an information room which can be used during normal office hours, and additionally provides expert staff to advise students about career-related issues. Ask at the reception desk.

Cavendish Laboratory

The Cavendish Laboratory is the name of the building which houses (most of) the University's Department of Physics; the name has become synonymous with the department itself. The laboratory was established through the generosity of William Cavendish, Seventh Duke of Devonshire, who endowed the laboratory in the nineteenth century, together with the Cavendish Chair of Experimental Physics. The original Cavendish Laboratory was located in Free School Lane, and opened in 1874; the Department moved to the present main site in 1973-74. The history of the Cavendish is well illustrated in the Cavendish Museum, located in the Bragg Building.

Cavendish Stores

Next to the Common Room in the Bragg Building is the central "stores" of the whole laboratory, the opening hours of which are 8:00 -16:45.

The stores sell past examination papers, the booklet of mathematical formulae, and calculators for examinations.

Cheating

The Department considers the act of cheating as a serious matter and any incident will be reported to the Head of Department, who will normally refer the case to the University Proctors.

It is unacceptable to:

- cheat during oral or written tests
- copy the work of others and submit as your own
- falsify and/or invent experimental data

In the practical classes, some experiments are designed to be carried out individually and some in collaboration with other students. Discussion among students and with demonstrators and Heads of Class is encouraged and you may use any help or insights gained in these discussions to improve your experiment, your understanding of the physics and your written report. However, your report should be written by you, following the guidelines on writing reports, and only data collected in your experiment should be presented as your own.

The Department has access to the latest anti-plagiarism software tools and will use them from time to time to monitor coursework submissions for plagiarism, and so ensure fairness for all students.

Classing Criteria

The Department of Physics has a policy that examiners will mark to agreed criteria for written examinations. Due to the way in which marks from different subjects are combined to create the final list in Parts IA and IB, the criteria used in Physics are not reflected directly in the class list. For Parts II and III, the examinations are under the direct control of the Department, in conjunction with scrutiny by External Examiners. The criteria for classing in Physics are available at <http://www.phy.cam.ac.uk/teaching/classing.php>.

College

Your College ordinarily admits you to the University, provides you with accommodation and arranges for your supervisions in Parts IA and IB. Usually, but not always, your Director of Studies in Physics will be a member of staff of the Cavendish, and will be directly in touch with the Department. Most Colleges aim to provide supervision at a rate of about one hour per week for each of Part IA Physics, Part IB Physics A and Part IB Physics B. Part II and Part III supervision is provided on behalf of the Colleges through a scheme administered in the Department.

Common Room

The Cavendish contains a large Common Room which is open to all students of Physics. It is open for light refreshments from 10:30-16:30, and for lunch from 12:30-13:45, on Mondays to Fridays. In addition there is an area for relaxation outside the lecture theatres, where there are vending machines for food and drink. Room 700 on the bridge between the Rutherford and Bragg buildings, above the metal stores is available for private study for Pt II and III students.

Complaints

If you have a complaint about the teaching or administration in the Department, take it up first, if possible, with the person directly concerned in a constructive manner. If this is not effective, or if the matter seems to be of general interest, you may wish to discuss it with your course representative on the Staff-Student Consultative Committee. It may also be useful to discuss the matter with your Director of Studies or Tutor. If your complaint is substantial, by all means take it to the Director of Undergraduate teaching or the Head of Department. There is also a formal University Complaints Procedure, of which you should have received details. If you need advice on whether or how to proceed with a formal complaint, you could ask your College Tutor or Director of Studies, or your CUSU representative, or any physics member of staff. (See also Harassment, below.)

Computing

The Department relies on the University Computing Service for the provision of computing facilities for undergraduates. The Managed Cluster Service (MCS – formally PWF) is located close to the Practical laboratories, where you can

use networked PCs with a range of software for word-processing, spreadsheet calculation and dataplotting. Most colleges also provide some facilities.

The Department makes increasing use of computers in practical work, and aims to develop specific skills in the use of computers for solving problems in physics.

Counselling

The University Counselling Service is at 14 Trumpington Street (telephone 32865), and is open 9:00 - 17:30, Monday to Friday. It exists to help members of the University who have problems of a personal or emotional nature which they wish to discuss in confidence. The Service is widely used, so it can be very busy, and it is best to make an appointment either by telephone or in person. In times of particular stress a special effort will be made to see you quickly.

Advice on personal matters is always available in your college through your Tutor.

Special assistance is provided by Linkline (internal telephone 44444, external line 367575) and the Samaritans (telephone 364455).

Courses

The Department of Physics offers a wide range of courses in Physics, at undergraduate and postgraduate level, many of which are detailed in the Lecture List which is available online <http://www.phy.cam.ac.uk/teaching/lecture.php> from mid-September. Some specialised courses for postgraduate students are not advertised in this way. The detailed synopses of the courses for Tripos are given in this Handbook, which is distributed at the beginning of the academic year to all students taking physics courses.

Databases

Students taking courses in Physics will come across a number of different on-line databases. Because these all use the same login method ("Raven" authentication: see below), it is not always obvious that these are different systems, which for the most part do not (yet) talk to each other. The four main databases are:

- **CamCORS** – the Cambridge Colleges Online Reporting System. Supervisors use this to report to Directors of Studies and Tutors on the progress of their supervisees, and to claim from the colleges for the supervisions provided. If colleges choose to release the information, students can view their supervision reports here directly. See <http://www.camcors.cam.ac.uk/>
- **CamSIS** – the student information system. Students use this to enter for exams, and (when the results are uploaded) to check their Tripos results. Part IB NST students also indicate their Part II subject choice through this system. See <http://www.camsis.cam.ac.uk/>
- **CamTools** – a Virtual Learning Environment (VLE) run by CARET, the Centre for Applied Research in Educational Technologies. Most Part IA NST courses have their own pages on CamTools. The Department of Physics uses instead the Teaching information System (TIS; see below) which permits better integration with other Departmental systems. See <http://camtools.cam.ac.uk/>
- **The Teaching Information System (TIS)** – a web database system run by the Department of Physics. All course resources are provided here. It is important that all students register directly with the TIS each year, in addition to entering for examinations on CamSIS. (see Registration: below). See <http://www-teach.phy.cam.ac.uk>

Department of Physics

The Department of Physics is the administrative unit in the Faculty of Physics and Chemistry which provides teaching in physics leading to the Part II and Part III examinations in Physics. The Head of Department is Professor Andy Parker. Your direct contact with the Department can be through your College (your Director of Studies in the first instance) or through the staff you encounter in lectures and practicals. The needs of students in Part I are usually met fully through College contacts; in later years direct contact with the Department increases. The Department provides various facilities specifically to help you in your study of physics, many of which are described in this document.

Director of Studies

You will have been assigned a Director of Studies in your College - possibly one for Physics and another for Natural Sciences overall. This person will assign you to supervisors during your first two years, will monitor your progress and try to assist you if you have problems. If you get into difficulties with the course you should discuss this with your Director of Studies, or with your Tutor. If for any reason you feel unable to do this any member of staff of the Department will willingly try to assist you.

Disability

The Department is happy to cater for the needs of students with disabilities. Students with disabilities which require special arrangements to be made should contact the Teaching Office in good time.

Electronic Mail

Electronic mail is widely used as a good way to communicate with your supervisors, and also provides the mechanism for offering comments on the courses offered by the Physics Department (see Year Groups). It is also used by the Teaching Office to contact students with information regarding examinations, hand-ins and all other administrative instructions.

Examinations

The marks upon which your degree classification is based are derived from a combination of continuously-assessed work, set pieces (such as projects) and examination papers. There is one three-hour paper in Physics for Part IA, two for Part IB Physics A, two for Part IB Physics B, and seven or eight two hour papers for Part II. In Part III most examinations are taken at the beginning of the term following that in which the course is taken; there is a 3-hour paper in General Physics at the end of Easter term.

See Natural Sciences Tripos <http://www.cam.ac.uk/about/natscitripos/exams/> and Classing Criteria <http://www.phy.cam.ac.uk/teaching/classing.php> for details of the grades that may be obtained.

Preparation for examinations is important, and the best method to use varies widely between individuals. The Physics Department has produced some guidance which you might find helpful and is available on the teaching pages on the web at http://www.phy.cam.ac.uk/teaching/exam_skills.php. If you have problems it is worth discussing them with your supervisor, Director of Studies or your Tutor, who may be able to assist by suggesting alternative approaches. Information on the various styles of questions is available at http://www.phy.cam.ac.uk/teaching/exam_questions.php, and you will find a brief description of how examiners work at http://www.phy.cam.ac.uk/teaching/exam_workings.php.

Internal examiners are appointed each year for each Tripos examination; two external examiners are also appointed for Parts II and III. The Reporter publishes the names of the examiners. For each subject listed below there is a Senior Examiner drawn from the staff of the Department, and they take the responsibility for the setting and marking of the examination papers, assisted by the other examiners. For the academic year 2014-15 the Senior Examiners are:

Part IA Physics: Dr J Ellis

Part IB Physics A: Prof. E M Terentjev

Part IB Physics B: Dr A Lamacraft

Part II Physics: Dr H P Hughes

Part II Half Subject Physics: Dr H P Hughes

Part III Physics: Prof. D R Ward

MASt: Prof. D R Ward

You should note that, by tradition - in order to ensure that the examination process is beyond reproach - direct contact with the examiners is **not** encouraged. If you have a problem that you believe should be brought before a particular body of examiners, the proper channel is through your Tutor or Director of Studies.

Selective Preparation for Examinations

There has been some discussion with past students about the advisability of ‘ditching a course’ in preparation for the examinations. The Department gave the following advice:

- (1) Departmental policy is that the examinations should test the whole course taken by students. The examinations are designed to test the wide range of skills and knowledge that has been acquired.
- (2) In any section of an examination paper, there is likely to be a range of questions which you will find to have differing degrees of difficulty and also testing different aspects of each course.
- (3) It is very dangerous indeed to ‘ditch courses’. It results in a very limited range of questions which can be answered - how do you know they are not all going to be very demanding? It requires enormous effort to be sure that you can answer well *any* question which can be set on any given course. It is much safer, and educationally much sounder, to prepare for all the courses for which you are entered in the Tripos examinations. You are much more likely to find two questions out of four in which you can perform well.

Examples Classes

From the third year onwards Examples Classes are provided as an important aid to your learning. They explore in greater depth some particular issues related to parts of the lecture course, and with a number of demonstrators on hand they should be used to strengthen your grasp of the course material.

Examples Sheets

Examples sheets are provided to accompany every lecture course, and are usually distributed outside the lecture theatre. It is the policy of the Department to provide examples which cover a wide range of difficulty, so don’t expect to be able to do all of them without some assistance from your supervisor. You should try to produce satisfactory solutions to all of the designated ‘core’ examples for your subsequent use in revision, after discussion of the material in a supervision. Many of the questions are taken from past Tripos papers, so they provide good practice in handling material in the lecture courses, chosen to reflect the present content of the course.

Faculty of Physics and Chemistry

The Department of Physics is part of the Faculty of Physics and Chemistry.

Feedback

The Department makes a great effort to provide excellent courses and facilities. We greatly appreciate feedback from students which helps us improve our courses. Your input is most helpfully directed through your representative on the Staff-Student Consultative Committee (see below). You will be emailed links to feedback questionnaires. Please fill these in with constructive comments – these responses are the key input to the Consultative Committee, and the information is then passed on to the lecturers, Heads of Class and supervisors.

You can also send suggestions or comments to the Director of Undergraduate Teaching (director-teaching@phy.cam.ac.uk) or the teaching office (teaching-office@phy.cam.ac.uk).

Students often believe their comments are not taken seriously or acted upon. This is absolutely not the case! Lecturers and other staff read feedback carefully and attempt, where possible and sensible, to respond. Almost every course we give has been positively improved by constructive student feedback. It really makes a difference.

Fire Alarms

All buildings are equipped with fire alarms, and you should take note of the instructions, which are posted around the buildings, for the procedure to follow in case of fire. There is a fire drill at some time each year. If you hear a fire alarm leave the building quickly and quietly by the nearest fire exit. Do not stop to collect your possessions. Do not use lifts. Fire doors in corridors close automatically when the alarm system is activated; they must never be obstructed. The system is tested between 7.30am and 8.30am each Monday.

If you discover a fire, raise the alarm by breaking the glass at the nearest Fire Alarm Point, and evacuate the building by the nearest safe route. If it is possible to do so without taking personal risks call the Fire Brigade (telephone 1999 from a University network telephone).

Formulae

A booklet of standard mathematical formulae, identical to the one that is made available in certain examinations, is available for purchase from Cavendish Stores and Classes Technicians or for downloading from the web at <http://www.phy.cam.ac.uk/teaching/students.php>. You are urged to use and become familiar with the contents of this booklet, because it has become clear in recent Tripos examinations that many students are not aware of the time it can save them in an examination.

Handbook

The Physics Course Handbook is updated each year, and distributed to students of all years. It aims to be the definitive source of information about the courses, the individual course synopses are available on the TIS at <http://www.phy.cam.ac.uk/teaching/students.php>. Students may be informed of corrections, and updates, during the year, e.g. in course handouts or by e-mail. It is also available on the web. Please send any comments, on errors or omissions, by e-mail to teaching-office@phy.cam.ac.uk.

Harassment

The University is committed to creating and maintaining an environment for work and learning which is free from all forms of discrimination. The central authorities of the University regard racial, sexual and disability harassment and bullying as wholly unacceptable behaviour. The information about harassment is available at www.admin.cam.ac.uk/offices/personnel/policy/dignity/.

Any student who feels they are being harassed or bullied racially, sexually or because of a disability is encouraged to seek advice. The Department of Physics has appointed two advisors who are available to students for guidance and support:

Dr Bill Allison, Room 413B & Tel: 37416, E-mail: mailto:wa14@cam.ac.uk

Dr Julia Riley, Room 916 & Tel: 37308, E-mail: julia@mrao.cam.ac.uk

Advice may also be obtained from College Tutors.

Contact with the advisors will be treated as confidential. No information about a complaint will be released or taken any further without the student's consent.

Institute of Physics

The Institute of Physics is a national body that exists to promote physics. The Student Liaison Officer for the Institute of Physics is Esther Bennett (Esther.Bennett@iop.org). Prof. Mike Payne (mcp1@phy.cam.ac.uk) is the Cambridge Representative, from whom application forms can also be obtained. Following graduation you may obtain (according to experience) various grades of professional membership, Chartered Physicist status, and several other benefits which may have some bearing on obtaining a job.

Laboratory Closure

The Cavendish Laboratory opens at 8:00 and closes at 18:00 Monday to Friday. Over Christmas and New Year the Laboratory is completely closed.

Late Submission of Work

In accordance with the University's regulations, work submitted after the advertised deadline will **not** count towards your final examination mark, unless an extension of time is granted on the grounds that there are mitigating circumstances. For any item of work amounting to more than 10% of the total for the year (for example a Part III Project), any application for such an extension should be made by your college Tutor to the University's Applications Committee. For items of work amounting to less than 10% of the total year's mark, any application for an extension should be made by your college Tutor or Director of Studies to the Director of Undergraduate Teaching, c/o Teaching Office, Cavendish Laboratory, (teaching-office@phy.cam.ac.uk).

In either case, you should submit the work as soon as possible after the deadline.

Lecture handouts

Handouts, containing material to supplement lectures, are usually distributed at the time of the relevant lecture outside the lecture theatre. The amount of material prepared is at the discretion of the lecturer. Diverse opinions have been (vociferously) expressed by students each year about handouts - some want very little material, others wish to have copies of lecture overheads, others want a substitute for a book. When lecture overheads are supplied there are often criticisms that the lecturer is reading from the handout! It is **impossible** for the Department to provide courses and handouts which satisfy every different preference. Lecture handouts should be regarded as assistance beyond the lecture material, optionally provided by the lecturer, but they cannot substitute for your own reading through the wide range of textbooks available throughout the University, and you cannot reasonably expect them to. Lecture handouts are available on the web at <http://www-teach.phy.cam.ac.uk/teaching/handouts.php>.

Lectures

Details of lectures will be found in the Lecture List published at the start of each academic year on the web at <http://www.phy.cam.ac.uk/teaching/lectures.php>.

Part IA lectures are usually held in the Bristol-Myers Squibb Lecture Theatre, The Chemical Laboratory.

Part IB Physics A and Physics B lectures are usually held in the Cockcroft Lecture Theatre on the New Museums Site.

Part II and Part III lectures are usually held in the lecture theatres at the Cavendish Laboratory or in the Sackler Lecture Theatre at the Institute of Astronomy.

Libraries

Library provision in Cambridge is outstanding. Your College will probably provide a core of physics books to supplement those you buy. Usually the College Librarian will welcome suggestions for additional purchases if you find omissions of important books from the College Library.

The Department provides the Rayleigh Library, located in the Bragg building, and a special section has been set aside for use by Part II and Part III students (see Part II and Part III Library, below).

The University Library has an extensive physics collection.

Physics journals are held in the Rayleigh Library and in the Moore Library in Wilberforce Road (see below). Online access to many physics journals is available within the cam domain.

MASt

This is a taught postgraduate course, which consists of the same content and assessment as Part III Physics. The course is designed for students who hold a 3-year undergraduate degree who wish to pursue a research degree. The entry requirement for the MASt is a qualification comparable to an upper second class or better UK Bachelor's degree in Physics. In recent years we have had a MASt class of 10-20 students who join us from degree programmes in the UK and worldwide. The intention is that they become fully integrated with the Part III class.

Managed Cluster Service (MCS – formally PWF)

The MCS is a network of PCs supported by the Computing Service and located close to the Practical classes. It is used to assist with data analysis, document preparation and specific computing exercises. You will need to register as a user. See also Computing (above). Printing facilities are available.

Moore Library

The University's main collection of physical sciences, technology and mathematics journals is kept in the Moore Library in the Centre for Mathematical Sciences in Wilberforce Road (close to the Cavendish, just turn left at the end of the footpath leading from the Cavendish into town, instead of continuing down Adams Road; the large building on the right near the far end of the road is the CMS). To use the collection you need to have a University Card. It is unlikely to be useful to you until the Third and Fourth years.

Natural Sciences Tripos

The Natural Sciences Tripos (NST) is the official title of the degree examinations covering the Natural Sciences, including Physics. The participating Departments of the University work together to provide a wide choice of subjects which can be combined in a great variety of ways to cater for the interests of each student.

Many students seem unclear about how the Part II and Part III examinations are Classed. The following is an extract from notes prepared in order to clarify the Department's position on this:

Part III of the Tripos is classed in the usual way - 1st, 2.1, 2.2, 3rd. Parts II and III of the Tripos are independent and marks are not carried forward from one to the other.

Degrees as such are not classed. Students graduate from the University as a B.A. 'with Honours' and, if they are classed in Part III, as an M.Sci. The classes are attached to a particular Tripos. Thus if, for example, a student obtains a First in Part II, they will be entitled to say that they obtained 'First Class Honours in Part II of the NST' whatever their results in Part III. If they also obtain a good result in Part III then they can add that to their curriculum vitae. If future employers, postgraduate grant funding agencies, etc. require more detailed information than just the degree certificate, they will normally receive from a College or the University the full profile of the student's achievements during their years here, not just their result in the final year. This should enable them to give proper weight to the Part II results.

It is worth noting that many of the key decisions about job offers and places in research groups will be made before the Part III results are known, so the Part II classes are likely to be an important factor in those choices. The Research Councils normally require a specific standard to be met if students are to be eligible for postgraduate support. At present a student is eligible for a Research Council grant if at least an Upper Second has been attained in *either* Part II *or* Part III. It is unlikely that a poor result in Part III would lead to an offer of a place from any university, even if the formal requirement had been attained at Part II.

See also Classing Criteria, above.

Part II and Part III Library

An area is set aside in the Rayleigh Library for use by Part II and Part III students, and there is an extensive collection of textbooks on all aspects of physics. These, and books from the main section of the Library, may be borrowed overnight after completing the borrowing procedure at the desk next to the main door to the Library. A quiet area for study is also available in the Part II/III study area accessible from the link bridge between the Bragg and Rutherford buildings.

Past Tripos papers

Recent papers are also available on the web at www-teach.phy.cam.ac.uk/teaching/examPapers.php. Remember that the course content changes, so past papers may contain questions on material with which you are not now expected to be familiar!

Personal Computers

Many Colleges provide PCs, and you may also use those provided in the Cavendish by the Managed Cluster Service (MCS formally PWF). See Computing (above).

Philosophical Society

The Philosophical Society is a long-established society in the University which, among its various functions, puts on evening lectures in the Bristol-Myers Squibb Lecture Theatre, Department of Chemistry. Some of these are by eminent physicists and all are intended for a broad audience - you are therefore most welcome to attend. More details are available at <http://www.cam.ac.uk/societies/cps/>.

Physics Course Handbook

See Handbook (above).

Photocopying

Photocopying may be carried out in the copy room of the Rayleigh Library.

Physics Society (CUPS)

The Physics Society organises a range of functions, including evening lectures. Joining is easy at the first evening lecture or at the Societies' Fair. More details are available at www.srcf.ucam.org/physics/wiki/index.php?title=Cambridge_University_Physics_Society.

Plagiarism

See Cheating (above).

Practical Classes

The Practical Classes are an important and examinable part of your course, and are conducted in the Cavendish Laboratory. Registration procedures are outlined in the relevant section of this Handbook.

Rayleigh Library

The Rayleigh Library is primarily a resource for research, but it includes a great many useful reference works as well as original research journals. Here you can also find New Scientist, Scientific American, Physics World (for those who don't have their own copy!) and Physics Today. All of these are excellent sources of information about the fast-advancing frontiers of physics. Next to the section with these and other current journals is the Part II & III Library. There is limited space for private working.

Raven

Raven is the University of Cambridge web authentication server. You will need your Raven password to log in to the Teaching Information System (q.v.), and to access "cam-only" material (such as past examination papers) on the teaching website from outside the cam.ac.uk domain. If you use the Hermes mail-store, then you can get your Raven password at <https://jackdaw.cam.ac.uk/get-raven-password>. If you don't use Hermes, then you can request a Raven password from <http://www.cam.ac.uk/cs/request/raven.html>. If you have a Raven password and your login is rejected by the teaching system, please let the Teaching Office know your CRSID so that we can enable your account. If you have lost your Raven password, or it doesn't work, then see <http://www.cam.ac.uk/cs/docs/faq/n3.html>.

Recording of Lectures

Audio or video recording of lectures is not generally allowed. If there is a specific reason for needing to record a lecture then a request should be made to the Teaching Office, who will consult the relevant lecturer. The Department may require that the recording is made by the lecture theatre technician.

Refreshments

See Common Room.

Registration

The Department runs an extensive set of teaching databases, and uses these, for example, to contact all students in any particular category. In order for us to reach you, we first need to know that you are here. You should receive, from the Department and/or your DoS, an invitation to register shortly before the start of the academic year. This does NOT enter you for examinations, or have any official function outside the Physics Department, but it does get you into the system so that we know you are here, and what you are doing. We are then able to allocate departmental supervisions where appropriate, and to give you access to all relevant information.

Reporter

The University Reporter is the official publication of the University in which announcements are made. The paper version of the Reporter is no longer produced. For all official notices concerning examination procedures see <http://www.admin.cam.ac.uk/reporter/>.

Research

The Cavendish is a large and thriving research laboratory, with a wide range of present-day interests in physics, and a fascinating and illustrious history. More information about the research can be found distributed around the laboratory

in the form of poster displays, but an increasing amount of information will be found via our Home Page on the World Wide Web: <http://www.phy.cam.ac.uk>

Research is organised into the following groups:

Abbreviation	Name of Research Group	Contact Phone
AMOP	Atomic, Mesoscopic & Optical Physics	66298
AP	Astrophysics	37294
BSS	Biological and Soft Systems	37423/37007
DP	Detector and Optical Physics	37294
HEP	High Energy Physics	37227
ME	Microelectronics	37556
OE	Optoelectronics	37313
NP	NanoPhotonics	60945
QM	Quantum Matter	37351
SMF	Surfaces, Microstructure & Fracture	37336
SP	Semiconductor Physics	37482
TCM	Theory of Condensed Matter	37254
TFMM	Thin Films, Magnetism & Materials	37336

Safety

Safe conduct is legally the individual responsibility of everyone in the workplace, whether they be student or staff member. Additionally the Department has specific legal obligations regarding health and safety, which are monitored by the Department Safety and Environment Committee. You will be given information about health and safety in the Practical Classes in particular; please take in this information, and accord it the importance it deserves. Particular rules apply to Part III Project work; they are detailed in the section describing the arrangements for projects. The Departmental Safety Officer is Dr. Jane Blunt (Room 220, Ext. 37397, fjb27@phy.cam.ac.uk).

Central Science Library

The University's main collection of scientific journals has been split into two. Journals related to the physical sciences, technology and mathematics are kept in the new Moore Library in the Centre for Mathematical Sciences in Wilberforce Road (close to the Cavendish, just turn left at the end of the footpath leading from the Cavendish into town, instead of continuing down Adams Road; the large building on the right near the far end of the road is the CMS). The other journals are kept in the SPL in Bene't Street, which was originally the Philosophical Society's Library and still houses the offices of the Society. To use the collection you need to have a University Library card. It is unlikely to be useful to you until the third and fourth years.

Smoking

The entire Department of Physics has been designated a **NO SMOKING AREA**.

Staff-Student Consultative Committee

The SSCC is the official channel for the communication of students' concerns to the Department. There are one or two student representatives for each of the courses provided by the Department. Elections to the SSCC take place early in the Michaelmas term during lectures. The Consultative Committee is chaired by Dr Julia Riley, and the other members are the Head of Department, the Director of Undergraduate teaching and the Secretary of the Teaching Committee. The Committee meets at the end of each term, just after lectures finish, and a major part of its business is to discuss in detail the feedback on each course, particularly as reflected by questionnaires. The Committee also provides feedback to the Teaching Committee on general teaching issues.

The Committee's minutes are considered in detail by the Teaching Committee and by the Head of Department, and are made available on the web for access within Cambridge (see www.phy.cam.ac.uk/teaching/committees.php, where the current membership may also be found).

Supervisions

Supervisions are organised through your college for Parts IA and IB, and by the Department for Part II. Supervision in larger groups is organised by the Department for Part III. You are normally expected to attend every supervision which you have arranged, as a courtesy to your supervisor as well as in order to benefit your own studies. You should expect to be asked to hand in work for each supervision, in sufficient time for your supervisor to look through the work and identify any potential problems.

If for some reason you have problems, please contact your Director of Studies in the first instance, even for supervisions arranged by the Department.

Synopses

Moderately detailed synopses are published for every course offered by the Department; the synopses have been arrived at after long deliberation, consultation, and debate within the Department. The relationship between courses is handled by the Teaching Committee, and every effort is made to refine the sequence in which material is presented. Some problems remain; these should just be the ones for which no clear-cut solution was available, but in case there are difficulties for you which have not been identified in advance, the Staff-Student Consultative Committee always welcomes direct feedback via your representative.

Teaching Committee

The Teaching Committee concerns itself with all aspects of teaching in the Department of Physics. It oversees the structure of lecture courses and practicals, and weighs up information about the success of the courses regularly during the academic year. The best route for communicating information to the committee is through your representative on the Staff-Student Consultative Committee, which itself reports to the Teaching Committee. The Chair of the Committee is Dr John Richer (Director of Undergraduate teaching) and the Secretary Dr Richard Batley.

Teaching Information System

The TiS is a web interface to the various teaching databases maintained by the Department. Part IA students can view their practical marks on the web; Part II and III students can select Research Reviews and Projects here, and can view their further work marks in the same way if they have been released. All supervisions arranged by the department are listed, and you can use the system as an easy way to email your supervisors and supervision partners (for Parts II and III).

All handouts, for all years, are now available via the TiS, <http://www-teach.phy.cam.ac.uk>

Note that you must first be registered (see "Registration") for the current year in order to gain access to these facilities, and that many of them require you first to log in, using your Raven password (see under "Raven").

Teaching Office

The Physics Department has a Teaching Office which is situated in the Bragg building, Room 212B, tel. 65798. The Teaching Office is run by Helen Marshall and is open for general enquiries and submission of written reports at regular times during full term. Enquiries can also be made to its e-mail address: teaching-office@phy.cam.ac.uk.

Telephones

The internal telephone network of the university provides 'free' calls between extensions, most of which have a five-digit number.

To reach an extension from another exchange line outside the network, the number is prefixed with a 3. (Some recent lines have 5-digit number beginning with a 6, for which the prefix when dialling from outside is a 7).

For details, see the internal telephone directory.

Transferable Skills

We have identified a set of transferable skills that physics undergraduates can expect to acquire in Cambridge. As well as being needed for academic performance, these skills are sought after by employers, and students are encouraged to develop them. The details can be found on the web at <http://www.phy.cam.ac.uk/teaching/students.php>

University Library

The University Library is an amazing resource for the University (and in many disciplines, for the international academic community). You may be surprised at how useful it can be for you. However, since it is so large it can be a little complicated.

Your University Card is required to gain access to the University Library.

You cannot take bags etc. into the library for security reasons, but you can leave them in the metal lockers to be found down a few steps on the right hand side of the entrance hallway. The keys are released by the insertion of a £1 coin, which is returned to you when you open the locker.

Most of the relevant physics books are to be found on the shelves in 'South Front, Floor 4' - easily located on the maps displayed throughout the building. You need to know that in order to maximise storage, books are shelved in catalogue sequence, but split into different size categories. This means that you might find four different sets of books on, say, atomic physics - the size is indicated by a letter a,b,c in the catalogue number. They are easy to find once you know this! Periodicals ('serials') have numbers prefixed with P.

An increasing proportion of the 7,500,000 items in the inventory of the library are appearing on the computer catalogue, which can be accessed from any computer terminal which can connect to the network. The catalogue will tell you where the book should be found (eg SF4 i.e. South Front Floor 4) and whether or not it is out on loan (and if so, when it is due back). The same catalogue system allows you to check your College library catalogue (for most of the colleges) and that of the Rayleigh Library. The UL catalogue is available at <http://www.lib.cam.ac.uk/>.

Website

The Cavendish Laboratory's home page <http://www.phy.cam.ac.uk/> has notices about events in the Cavendish, lists of staff and details of the activities of the various research groups, as well as teaching material and information. This Physics Course Handbook and teaching material for various courses can be found at <http://www.phy.cam.ac.uk/teaching/>. The Teaching web pages also provide links to the Teaching Information system (q.v.), and to certain material that is not generally available to addresses outside the cam.ac.uk domain.