University of York
Department of Computer Science
Students' Handbook 2010/11
Taught Postgraduate and Pre-2010 Entry Undergraduate Programmes
Version 1.0 (August 2010)

Foreword

Welcome to the Department of Computer Science. This handbook is for undergraduates returning to continue programmes in the Department of Computer Science and taught postgraduate students enrolling in October 2010, and aims to give you the essential information you will need during your programme.

The information in this handbook is correct at the time of going to press, however you should check the online version of the handbook for any updates that may occur during the academic year.

Chris Crispin-Bailey (Editor)
2010

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1. Some Important Definitions and Dates

1.1. The University Year

The University year is divided into three terms: autumn, spring and summer (in that order). A term has 10 weeks. Term normally begins on a Monday (note that summer term 2011 begins on Tuesday due to the unusually late Easter).

Undergraduates are required to attend the University for the whole of each term, from the first day of week 1 to Friday of week 10, with the exceptions noted in section 2.2. Examinations normally take place during Week 1 of the spring term and Weeks 1, 7 or 8 of the summer term (see section 16.1.3 for details). Summer examinations are usually preceded by a revision week when no teaching is scheduled.

The notation "Term/ Week/ Day" is used in this handbook with the obvious meaning; so, the spring term (for example) begins on Spr/ 1/ Mon and ends on Spr/ 10/ Fri. Some MSc students are in residence during the summer vacation. To simplify the notation for these students, the summer vacation is counted as an "extra term". "Vac/ 1/ Mon" means the first Monday of the summer vacation, which is the same day as Sum/ 11/ Mon.

1.1.1 Dates of terms and degree congregations

This information can be found at:

http:/ / www.york.ac.uk/ admin/ po/ terms.htm

1.2. Programmes, Parts, Modules, Credits and Marks

1.2.1 Programmes

Formally, a programme refers to a degree course, e.g. BEng / BSc (CS), MEng (CSSE) or MSc IT.

1.2.2 Parts

Students come and go in terms (autumn, spring, summer), but the undergraduate degree programmes are arranged in two logical parts per year:

Part A) Autumn term, plus Spr/ 1/ Mon to Spr/ 1/ Fri
Part B) Spring (Spr/ 2/ Mon to Spr/ 10/ Fri) and summer terms

Certain programmes continue into the summer vacation. Where this is the case, this is designated as “Vac” in the course tables in sections 18-28.

Through the four taught undergraduate years, these parts are labelled Ia, Ib, IIa, IIb, IIIa, IIIb, IVa, IVb.

At the end of teaching in each part, there is either a vacation or a revision period before a period of closed examinations. Part Ia, IIa, IIIa and IVa closed examinations occur in week 1 of the spring term. Part Ib, IIb, IIIb, IVb closed examinations occur in the summer term during weeks 1, 7 and 8.

1.2.3 Modules

A module is a component of a degree programme, usually comprising a set of lectures, with practicals or seminars. Detailed information about modules is available from the module web pages at:

http:/ / www.cs.york.ac.uk/ courses/

Module web pages describe the content of each module, what you can expect to learn from the module, how much work you can expect to do and so on.

1.2.4 Credits, marks and workload

Each module is "worth" a number of credits. In general, this number is a multiple of five.

A credit is a measure of student workload. University policy is that a credit is equivalent to 10 hours' work (all taught modules, at any level).

It is intended, therefore, that a 10-credit module taken in Part II, III or IV requires 100 hours of work. "Work" in this context includes all work associated with a module: lectures, practicals, preparation, revising, reading, assessment and so on.

By national agreement among universities, the number of credits per programme is as follows.

Programme	Credits per annum	Credits per programme
MEng, MMath	120	480
BA, BSc, BEng	120	360
MSc	-	180
Postgraduate Diploma	-	120
Postgraduate Certificate	-	60

A credit is explicitly not a measure of the number of "marks" it is possible to gain by completing perfectly all assessments associated with the module. Details of the marks allocated to each module are given in the module description pages online.

1.3. Prerequisites, Strands and Clumps

1.3.1 Prerequisites

Not all modules are available to every student. Availability is governed by a set of prerequisites, which serve the academic purpose of ensuring that students have the background knowledge necessary to benefit from a module. Prerequisites for a particular module are listed in the appropriate module web page. There are normally no prerequisites for a Year 1 module (but see below). In Years I and II of undergraduate degree programmes, each Part B module has among its prerequisites the Part A module that precedes it in its strand (see 1.3.2). This is because strands are academically coherent along their length. A prerequisite requires that you attend a module or strand and complete all examinations for that module.

Notes for CS / Maths students

Timetabling limitations mean that Computer Science / Mathematics students cannot attend the Introduction to Computer Mathematics (ICM) and Mathematics for Computer Science

(MCS) modules. Some of the material in those modules is, however, required for the second year module Theory of Computation (TOC). Material from ICM and MCS is also relevant to other second year modules. Material relevant to these modules should be covered in the CS/ Maths tutorials. You should consult your supervisor as to whether you have satisfied the second year prerequisites.

1.3.2 Strands

A strand is a theme running through the programme, e.g. UI, SY, SE, AI, etc. Typically, a strand is 30 credits of work, and includes a 10 credit part A module and a 20 credit part B module, although there are some exceptions.

Abbreviation	**Strand**
AI	Artificial Intelligence
AR	Architecture
EL	Electronics
MI	Miscellaneous†
EN	Enterprise
MO	Modelling
PR	Programming
SE	Software engineering
SY	Systems
TH	Theory
UI	User interfaces

† The Miscellaneous strand exists to allow the flexibility to include options that do not fit into a clear strand. For the details of how any particular strand is constituted, see the "strand" column in the programme tables in this handbook.

1.3.3 Clumps

A clump is a collection of assessed modules that together form a single pass-element for the degree. For undergraduate degrees, clumps apply only during the first two years and are labelled according to their year, e.g. CS1-A, CS2-B, etc. For some Masters level degrees, one clump might be all taught modules while another might be project work, e.g. MSc IT. For the details of how any particular clump is constituted, see the programme tables in this handbook.

2. General Student-Related Matters

2.1. Supervision

All students of the Department have a member of the teaching staff allocated to them as their supervisor (see Section 7.1).

Supervisions are pastoral meetings between a supervisee and their supervisor. They exist to help students monitor their progress, set goals for their studies and discuss problems, both academic and personal. In the Department of Computer Science we have three compulsory supervisions per term: in Week 1, in one of Weeks 5 or 6 and in Week 10. (Where a project supervisor is also a pastoral supervisor, the pastoral meetings can be combined with a project supervision.)

Your supervisor is the person to whom you should go at any time if you encounter academic or personal problems. However, in some circumstances, some students would rather approach someone other than their supervisor. In particular, you should feel able to consult the Chair of the Board of Studies, the Head or Deputy Head of Department, or, in relation to specific examination issues, the Chair of the Board of Examiners. In certain situations, the Chair of the Board of Studies may be able to arrange a change of supervisor, either temporarily or permanently.

When a student starts a project they acquire a *project supervisor*. Unless the project supervisor is a Research Associate (RA), the project supervisor also takes over the role of pastoral supervisor. If you are supervised by an RA you should still go to your pastoral supervisor for start and end of term meetings, to discuss examination results, and any non-project related problems.

Periodically, members of staff are away from the University sabbatical leave. Students will be allocated a temporary supervisor who will act as their supervisor for all official purposes for the period during which their supervisor will be away.

2.2. Attendance and absence

2.2.1 General requirements

Attendance requirements for undergraduates are governed by University Regulation 6.3, 'Residence Requirements and Attendance'
http://www.york.ac.uk/admin/aso/ordreg/r6.htm#6.2

Attendance requirements for MSc students are governed by University Regulation 2.1e, http://www.york.ac.uk/admin/aso/ordreg/r2.htm#2.1.

In addition, the various departmental programmes require particular lengths of residence:

Degree	Residence requirement
BEng, BSc	9 terms
MEng, MMath	12 terms
MSc	52 weeks (See also Chapter 20)

2.2.2 Attendance at teaching sessions

Attendance at all teaching sessions, except lectures, are compulsory, unless you are informed otherwise. Attendance at lectures is optional, unless you are informed otherwise.

Unauthorised absence from a compulsory session will attract a caution; repeated unauthorised absence will attract a formal warning (see Section 2.3). 'Repeated absence' is defined differently for different cohorts:

Cohort	Normal trigger for a formal warning
Stage 1 & 2 undergraduates	3 cautions in 3 separate weeks of one term
Stage 3 & 4 undergraduates & postgraduates	*either* 3 cautions in one module *or* 5 cautions in one term.

Notes

1. Important material is often distributed at lectures: it is your responsibility to make sure that you do not miss it.
2. A compulsory session may only be missed for a good reason, and with the permission of the deliverer of that session.

   In the case of an emergency or illness, permission may be gained retrospectively; such permission should be sought as soon as possible.

   Evidence should be provided, where appropriate. For illness a medical note or a self-certification certificate (see Section 2.7) is usually adequate.
3. For sessions where attendance is monitored by a register it is your individual responsibility to ensure that your attendance is monitored. You should never sign in for others, nor ask others to sign in for you.[1]

   Once signed in you should not leave before the end without notifying staff of your absence.
4. Project supervisions count as a compulsory module session.
5. The Department attempts not to teach on Bank Holidays; however, we reserve the right to run a session on a Bank Holiday when necessary, and will inform you if a session is not cancelled.
6. For full-time taught postgraduates, unauthorised absences during the Easter Vacation will be treated as absences during the Spring Term (see Section 20.2).

Justification of compulsion

The Department imposes compulsory sessions to partly discharge the duty of care towards students. We use absence from practicals as one mechanism to keep track of students who may be in trouble: experience tells us that if a student is in difficulties, whether academically, socially or whatever, one of the first signs is that they miss teaching sessions.

[1] In the event of an emergency during a practical (for a fire alarm or whatever), the sign-in sheet can be used to determine whether students are still in the building. Fire fighters or others might put themselves at risk trying to rescue a "signed-in" student who is not actually at the practical.

2.2.3 Absence from your studies

General
Student absence from studies is governed by University Regulation 6.4 (http:/ / www.york.ac.uk/ admin/ aso/ ordreg/ r6.htm#6.3).

If you wish to be absent from your studies for any reason you must have permission. Permission is granted as follows:

Length of absence	Granter of permission
up to 3 days in one term	your supervisor
4–28 days within one term	Chair of the Board of Studies
over 28 days or an absence not within one term	Undergraduate Special Cases Committee or Board for Graduate Schools as appropriate.

Notes

1. You should always discuss a potential absence with your supervisor.
2. Permission must be sought in writing, with documentary evidence, where appropriate.
3. Requests to the Special Cases Committee (see http:/ / www.york.ac.uk/ admin/ sso/ academic/ scc/ ac_loa.html) and Board for Graduate Schools must be supported by the Department, in the person of the Chair of the Board of Studies.
4. The Department does not give permission for absence for social reasons or for holidays. However, leave of absence would not normally be refused for final year students between their last examination or assessment, and Monday week 10 of the end ofl term. Application for this leave of absence must still be made to the Chair of the Board of Studies. Non-finalists must be present in week 10 to meet their supervisor and discuss any problems arising from poor assessment results.
5. Full-time, taught postgraduates need permission for absences during the Vacations as well as the terms (see Section 20.2).

2.3. Cautions, formal warnings and deregistration

This section describes the Department's disciplinary process, which feeds into the University's disciplinary process.

2.3.1 Cautions

Cautions are issued for minor misdemeanours, such as missing a compulsory teaching session (see Section 2.2.2). They are usually issued by e-mail to your Departmental account. If you believe that a caution was issued in error (for example, you may have missed a practical session through illness — see Section 2.7) you should contact your supervisor; you may be asked to provide evidence (such as self-certification or a medical note). If you cannot contact your supervisor you should contact the member of staff who asked for the caution to be issued.

2.3.2 *Formal warnings*

Formal warnings are issued for more serious misdemeanours, and are the first step in the University disciplinary process. You must acknowledge receipt of a formal warning by a signed letter (not e-mail).

The Board of Examiners has a record of the number of formal warnings each student receives and may use this information in its deliberations.

Common reasons for issuing formal warnings include repeated non-attendance (see Section 2.2.2) and academic misconduct in relation to an examination.

Formal warnings may be cancelled, but this is usually only the case in exceptional circumstances.

2.3.3 *Deregistration*

For very serious offences the Department will recommend to the University that it deregisters you.

Example of offences in this category include

- a third formal warning,
- a second case of academic misconduct in relation to an examination, and
- failure to respond to a formal warning.

If we decide to apply for deregistration for you we will write to you stating our intention to do so. Within a fortnight of announcing our intention we send a case to either the Special Cases Committee (for undergraduates) or the Board for Graduate Schools (for postgraduates), who will pursue the matter further.

If you receive such a letter you are strongly advised to discuss it with your supervisor. You may also wish to discuss it with a YUSU* representative.

Further details are given in University regulations:

	Regulation	URL
Undergraduate	6	http://www.york.ac.uk/admin/aso/ordreg/r6.htm
Postgraduate	2.9	http://www.york.ac.uk/admin/aso/ordreg/r2.htm#2.9

2.4. Communications

2.4.1 *From students to staff*

All staff can be reached by electronic mail: refer to Sections 6.5.1 and 2.4.3. If you wish to leave a message (other than by email) for your supervisor or any other member of staff, please speak to the staff at Reception.

* University of York Students' Union

2.4.2 *From staff to students*

Communication with individuals
If the Department wishes to communicate with you as an individual, it will use one or more of the following means (most used first):-

1. E-mail to your Departmental account, <username@student.cs.york.ac.uk>.

   You should check this account at least once each working day.

   See also Section 2.4.3.

   [The University will send e-mail to your University e-mail account. You may choose to forward e-mail arriving at your University account to your Departmental account: see the IT Services Web pages.]

2. Post ('snail mail') to the Departmental student pigeonholes.

   You should check your pigeonhole at least once each working day.

3. Formal communications will usually be sent to your term time address with a copy to your home address, as recorded in e:Vision. (see e:Vision section below)

4. In an emergency, we may telephone you (using one or more of the numbers recorded in e:Vision. (see e:Vision Section below).

Communication with groups
If the Department wishes to communicate with you as part of a group of students (for example, all students on a particular module, or all students in a cohort, all tutees of a supervisor) we will use one or more of the following means, as appropriate:-

1. E-mail to your Departmental account.
2. Notices on module web pages (http:/ / www-course.cs.york.ac.uk/).
3. Notices on the Departmental Fora (http:/ / www.cs.york.ac.uk/ forum/).
4. Notices on the appropriate notice board in the ground floor corridor.

You should consult these regularly.

E:Vision
The information stored on your e:Vision account is the University and the Department's primary source of information for addresses should we need to write to you or telephone you. You *must* keep this up to date, and make changes to your record as soon as they happen. See https:/ / evision.york.ac.uk/

2.4.3 *External E-mail accounts*
Students may arrange to have e-mail forwarded from their Departmental account to an external account. If you choose to do this, the Department can accept no responsibility for messages that go astray after they have left our systems. Non-arrival of an e-mail that has left the Department's system will not be accepted as a valid excuse.

The Department will not accept an e-mail from an external account as a valid communication as we have no way to verify the sender. Such emails may be removed by spam filters, the Department can therefore not guarantee receipt of such emails.

If you are away from York on an industrial or other placement, you must continue to read your Departmental e-mail regularly from your place of work.

2.5. Protection of personal information

The Department often gets requests for information about students from concerned parties (such as parents). The 1998 Data Protection Act places a responsibility upon the University to keep information about its adult members private. There are very few situations where we are allowed to respond to any request for information about an individual without the explicit, written consent of the individual concerned, unless that information is already in the public domain.

If you wish to allow us to discuss your personal affairs with others, you should write to us, telling us so. You may limit the range of whom we may disclose information to (for example, 'my parents', 'only medical staff dealing with my care'), the information we may disclose (for example, 'anything except my term-time address') and the time for which we may do this (for example, 'until I return from industrial placement'). The letter will be placed on your departmental file. Should you later change your mind, you must write to inform us of the fact. The University's policy is described at:

http:/ / www.york.ac.uk/ recordsmanagement/ dpa/ dppolicy2002.htm

In particular, see Section 2.3 of that document:

http:/ / www.york.ac.uk/ recordsmanagement/ dpa/ dppolicy2002.htm#Disclosing Personal Data

See also Section 4.7 of this handbook.

2.6. Student Problems and Welfare

2.6.1 General

If you are experiencing difficulty with your work, if you feel that unreasonable demands are being made of you, if you find that there are clashes between coursework deadlines, or if you are being hindered by medical, domestic, personal or other problems, you should consult your supervisor (or another member of staff) as soon as possible.

If you cannot find your supervisor, or you would prefer to talk to another member of staff you may do so. In particular, you might want to talk to the Chair or Secretary of the Board of Studies (Section 8.1) or the Head (or Deputy Head) of Department (Section 7.3). The staff at Reception may be able to contact the member of staff you are seeking.

If you experience problems that interfere with your work, you may ask for this to be taken into consideration by the Board of Studies in assessing your work, by completing a Mitigating Circumstances form (see Section 16.2) and providing suitable evidence. Forms are available at the Departmental Reception desk.

2.6.2 Student support and Welfare Services

The University has a number of services dedicated to student welfare (see http:/ / www.york.ac.uk/ admin/ sso/ handbook/) These include:

- **Departmental** See Section 2.6.1.

- **Your College welfare team**
  This includes the Provost and a College Dean with special responsibility for student welfare. See http:/ / www.york.ac.uk/ colleges/

  Every full-time student is a member of a college and part-time students can request membership of a college. Students may approach their college welfare team for help and advice whether or not they are resident in the college at the time.

- **Central support services** A full list is given at:-

  http:/ / www.york.ac.uk/ student-support-services/ handbook/ central/
  These include The Open Door Team – http:/ / www.york.ac.uk/ opendoor
  the first point of contact for students experiencing emotional, psychological or mental health difficulties.

- **Other Related Organisations** These include:-

  The Students' Union (YUSU), especially its Academic and Welfare Services - http:/ / www.yusu.org/ academic and http:/ / www.yusu.org/ welfare
  The Graduate Students' Association - http:/ / www.yorkgsa.org/
  Nightline - http:/ / www.yorknightline.org.uk/
  The Health Centre - http:/ / www.drpriceandpartners.co.uk/ student-health.html
  The Chaplaincy - http:/ / www.york.ac.uk/ univ/ chap/ has contacts for many religions and faiths

The University holds a list of organisations that support **international students**; see:-

http:/ / www.york.ac.uk/ student-support-services/ handbook/ international/

2.6.3 Disabled Students

If you have a disability which might affect your studies, you may be entitled to support. Whether or not a disability has already been declared (such as on the UCAS Form) or develops or becomes apparent during your time at the University, then it is possible to get appropriate support.

The University has a Disability Services department which can offer a great deal of assistance; but in the first instance you should consult the Department's Disability Advisor (see section 7.3).

2.6.4 Debt

It is essential that you budget carefully and try to avoid debts.

If you are having difficulty in meeting a bill from the University, do not ignore it because ultimately it will only make matters worse. You should go to the Fees Office to discuss the matter - http:/ / www.york.ac.uk/ admin/ finance/ findept/ fees.htm.

If you have debts outside the University that you cannot meet, go to see the Student Financial Support Unit - http:/ / www.york.ac.uk/ studentmoney/. Their staff have experience of debt counselling and will do everything possible to help you.

2.7. Illness

2.7.1 General

If you are ill or unable to work then it is important that you inform your supervisor as soon as possible. If you are ill in the period leading up to or during examinations, or while open assessments are being undertaken, you should complete a Mitigating Circumstances form (see Section 16.2). If you are taken ill during a closed examination, you should tell the invigilator and go straight to the University Health Centre.

2.7.2 Student Self-Certification for Minor/Short-term Illness

If you are ill for a short time (at most 7 consecutive days, and at most 10 in one academic year) you do not need to provide a medical note; instead you may self-certify your illness. The procedure is described at http:/ / www.york.ac.uk/ students/ support/ health/ selfcert/ . .Note that the certificate **must** be received by the Student Support Office no later than seven days after the first day of absence. Please note that if your illness causes you to miss a closed examination or open assessment deadline, self-certification alone is not sufficient and you must obtain a doctor's note; see section 16.1.6 for further information.

Be aware that this is not permission to take 10 days off per year. If you are considered to be misusing this system, it will be dealt with as a disciplinary matter (see Section 2.3).

We expect that you will normally be able to catch up on any academic work missed during a self-certificated period of absence. If this period includes an examination you should obtain documentary evidence (in the form of a doctor's note) and complete a mitigating circumstances form: see Section 16.2.

2.8. Employment References

When applying for jobs or programmes of further study, you will normally be asked to supply the names of two or more referees who can attest to your character or ability or both. Normally your supervisor will act as one referee. Alternatively, or as a second referee, you may name:-

1. your first supervisor (if you changed supervisor for your final-year project);
2. any other member of academic staff with whom you have a relationship;
3. the Deputy Head of Department (Teaching) who, if he does not know you personally, will consult those members of the Department who do.

As a matter of courtesy, you should always seek the permission of the people you would like to write a reference for you, before you name them as a referee. If a supervisor does not reply promptly to requests for a reference, the problem should be brought to the attention of the Head of Department.

2.9. University Accommodation

2.9.1 General

This section describes special arrangements for industrial placement ('sandwich') students and MEng students. For all other students, the rules and procedures of the Accommodation Office (http://www.york.ac.uk/admin/accom/) apply.

Note that leave to be absent from your studies (Section 2.2.3) does **not** automatically entitle you to a refund of accommodation costs. You should consult the Accommodation Office.

2.9.2 Industrial placement students

The Accommodation Office will contact you (through your University e-mail) while on placement about accommodation for the third taught year of the degree programme. You should contact the Accommodation Office if you have any accommodation-related queries while you are away on your industrial placement year.

2.9.3 MEng students

The Accommodation Office treats both third year and fourth year MEng students as finalists. MEng students who accept a place in University accommodation during their third year are not debarred from a place in their fourth year, although their chances of a place in their fourth year will be reduced.

[This is a special dispensation for MEng students; it does not apply to MMath students. The Accommodation Office currently treats third year MMath students as non-finalists and fourth year MMath students as finalists.]

2.10. Premature Termination of Studies

If you are considering leaving the University of York before the completion of your studies you should consult the Student Support Office and your supervisor.

If you do decide to leave, you should fill in the appropriate form from the Student Support Office, which may be found at:
http://www.york.ac.uk/students/support/academic/undergraduates/leaving/

When completed you should submit a copy to the Department and to the Student Support Office or Graduate Schools Office, as appropriate.

2.11. Personal Development Planning

The University has introduced Personal Development Planning (PDP) for its students. All single subject students in Computer receive information about PDP, have a mandatory PDP-oriented tutorial and other opportunities to discuss their engagement with PDP.

PDP is defined as a "structured and supported process undertaken by students to reflect upon their own learning, performance and/or achievement and to plan for their personal, educational and career development".

Supervisors are the first point of contact for PDP. At the start of each year, students will be asked to engage in a discussion of PDP with their supervisor, with a short note of the discussion being filed via the start-of-term (orange) form. Orange forms will prompt supervisors to ask students informally about PDP at Spring and Summer start-of-term-

meeting; however, it is up to each student to decide how to engage with PDP activities and what to discuss with supervisors.

In addition to the normal University and departmental sources of career and personal development advice (see section 2.16.5), there are two websites supporting PDP activity. The University's Careers Service has a PDP page:-

http:/ / www.york.ac.uk/ services/ careers/ info_future.cfm?page=462

The Department has a PDP page, with useful links, covering professional organisations, volunteering, skills training, clubs and activities:

http:/ / www.cs.york.ac.uk/ pdp

Note that if you have maintained a personal development record (PDR) you may wish to incorporate this with your PDP activities at University. You should feel able to discuss aspects of PDR as part of any PDP session. You may, if you wish, ask your supervisor to make a specific appointment to discuss PDP.

2.11.1 Year 1 Students

First year Students receive briefing materials through VLE on entry (see section 6.5.2). In the Autumn term, there will be a supervision session on what it means to be a computer science graduate. In the Summer term, there will be lectures related to the careers aspect of PDP; MSc IT and Computing students, along with first year undergraduates, are expected to attend these lectures.

2.11.2 Subsequent Year Students

Second and Third year students , together with Fourth year MEng Students (including those returning from placement, exchange and LoA) continue their PDP. At the start of the year, they will review their PDP with their supervisor.

2.11.3 Students on combined programmes

Joint Computer Science/ Mathematics students will not take part formally in PDP within the department of Computer Science. However, they may wish to consult the PDP website and request review meetings with their supervisor.

2.12. Student Representation

Student representatives for various departmental committees (see Section 8 for further details) are elected each year during the autumn term.

The following describes what being a Board of Studies representative involves; it was written by a former student representative in 2010.

The department strives to involve students in as many aspects of its policy making as possible. From smaller committees like the Departmental Teaching Committee, through to the much larger Board of Studies (of which all teaching staff are members), student representatives are invited to involve themselves and champion the viewpoints of students. They become an important link between staff and the students they represent; not only do they get the chance to genuinely shape the department's policy and responses to problems,

but they will also benefit personally from the insight the role provides of how an academic department operates.

This section briefly describes what the role of a student representative entails, and why every student in the department is encouraged to consider serving.

What does a student representative do? Student representatives are the link between students and the academic staff, so one of your main roles would be to channel information between the two groups. If students are letting you know of a problem, then it is your duty to raise awareness of it by contacting the appropriate staff or speaking in a committee meeting. Problems might range from the easy-to-fix to the serious. For example, a lecturer might not be placing their lecture materials online – a quick reminder by e-mail on behalf of the students could fix this. An example of a more serious problem might involve a module assessment, such as a closed examination question students consider to be unfair – resolving this issue might require you to collate the views of students, and asking the Board of Examiners to investigate.

Information should not only be channelled from students to staff; equally, it would be hoped that you keep your colleagues informed of interesting developments in meetings, of actions you have taken, and actions the department has taken in response to issues. To facilitate this, you would be given partial access to the people database, allowing you to send bulk e-mails to the students you represent.

As a student representative, you would be expected to take seriously the anonymity of your colleagues. Many students find it embarrassing to e-mail lecturers or complain personally. An important part of the role is acting on behalf of such students, giving them a way of raising their concerns to staff indirectly.

How many student representatives are there? Each undergraduate year group elects a student representative, as well as a single representative for the CS/ Maths students. One is elected per taught postgraduate course, and students engaged in research also have a representative. The full list is available here: http:/ / www.cs.york.ac.uk/ bos/ bosreps.php

How much time does the role demand? There is a fixed number of meetings throughout the year that you will be invited to attend; usually, a Board of Studies meeting at the beginning and end of each term, an Annual Programme Review (once a year, as the name implies!), and finally a single meeting each term with one of the sub-committees, dependant on your level of study (undergraduate, taught postgraduate, or research). Other committees exist, such as the Safety Committee, but attendance at these is only required if you have a particular issue to raise. The CS/ Maths representative may also need to attend meetings in the Department of Mathematics, as well a joint executive committee specifically for issues related to the CS/ Maths joint degrees.

Though the number of hours spent at meetings is quite low, the number of hours you dedicate to student representative work inbetween them is rather variable. On the one hand, you might complete your service without a single issue occurring – in this case you would have very little to do! On the other hand, the department is run by humans; mistakes do happen, and decisions might be made that students feel are not in their best interests. Students will turn to their student representative to deal with such problems. You would be

expected to summarise their concerns and channel them to the appropriate committee, seeing that they are dealt with properly.

How are meetings conducted? The meetings are fairly relaxed affairs. An agenda is distributed to members beforehand, providing a structure to the discussion of topics. Discussions are (usually!) orderly; if you have something to say, simply raise your hand, and the chair of the meeting will make sure you are given an opportunity to speak. You do not need to be any more assertive than this to make your views heard.

Will I personally benefit from serving as one? Absolutely! You will finish your service with a valuable insight into how an academic department is run, how meetings are conducted, and how to ``make things happen''. The role facilitates the development of transferable skills such as communication and problem solving, and can help to build your confidence.

This all sounds rather daunting! Don't worry – training is provided by both the department and the students' union, and some representatives are paired with staff representatives (e.g. first, second, and third year staff reps in the Departmental Teaching Committee). You would soon settle into the role. Don't let confusion over the number of committees and the culture of the department put you off from applying. A desire to represent your colleagues and to help the department improve is all that is needed to succeed.

How do I become one? The university's student union (YUSU) now handle the election of all student representatives (including taught postgraduate and research student reps). Nominations are invited via the union's website (http://www.yusu.org/) early in the Autumn term – check the academic affairs section of their website regularly. Once nominations close, students will be invited to vote for their preferred candidates via an online poll. Shortly after the polls close, the union will announce the results, and the winning candidates will be the student representatives for the remainder of the academic year.

How do I find out more about being a student representative? Send an e-mail to the Chair of the Board of Studies (see Section 7.3), who will be more than happy to answer any queries you have. Alternatively, you might like to contact one of the existing (or previous) student representatives, whose contact details you will find on this webpage:
http://www.cs.york.ac.uk/bos/bosreps.php

2.13. Departmental Research Seminars

The Department organizes a programme of seminars during each academic term. Seminars are open to **all** members of the Department, and students of all years are particularly encouraged to attend. The member of the Department responsible for the organization of these seminars is listed in Section 7.3. In addition, some research groups within the Department organize their own series of seminars. Information on all seminars is available through the web: see http://www.cs.york.ac.uk/seminars/ .

2.14. Departmental Social Functions

The Department organizes a number of receptions and social functions throughout the academic year. The exact details vary from year to year but usually include:-

Reception for. . .	When
arriving MSc students	October
arriving 1st year undergraduates	October
graduands	Degree days
departing MSc students	September

Further information about departmental functions can be obtained from the Departmental Functions Coordinator (see Section 7.3).

The Department also organizes a number of sports events, including the Staff vs. Student football and the Staff vs. Student cricket. Matches are held towards the end of the academic year.

2.15. Recording of Teaching

Any form of audio or video recording of lectures, seminars or practical sessions is only permitted under the following circumstances:-

1. Recording should never happen without the permission all those involved in teaching the session.
2. If a visiting lecturer is speaking, their permission is also needed.
3. Any such recording is for your own use only.
4. Recordings should not be distributed or broadcast in any way without written permission.

See also Sections 4.6 - 4.10.

2.16. Extra-Departmental Matters

2.16.1 Careers advice

The Careers Service can provide assistance in securing employment after graduation. The staff can provide a wide range of services and have extensive experience. Students can drop in for an informal chat, perhaps with the duty Careers Advisor, a receptionist or an Information Officer, or they can make an appointment for an in-depth consultation. For further information, students should enquire in person at the Careers Service, or see http:/ / www.york.ac.uk/ services/ careers. The Department also has a Careers Liaison Officer, whose name is listed in Section 7.3.

2.16.2 University IT Services

Computer Science students will be treated as any other student by IT Services. All students are automatically issued with an IT Services username (identical to their Departmental username) at the start of their first academic year. Certain facilities, (printing in particular) require a down payment to be made in order to open a charge account. Check with IT Services for their latest regulations.

2.16.3 *Libraries and bookshops*

The Department has a Library and Bookshop Liaison officer (see Section 7.3). That person is the Department's representative on the University Library Users' Committee as well as being the Department's liaison with the bookshop. See http:/ / www.cs.york.ac.uk/ books/

Libraries You have access to two libraries:

- **The University (J. B. Morrell) library** The main source of books and periodicals. See http:/ / www.york.ac.uk/ library/
  Please note: the University Library is currently undergoing a refurbishment which is due to be completed in 2012. Further information can be found on the refurbishment website: http:/ / www.york.ac.uk/ library/ libraryrefurbishment/
- **The Departmental library** The source of past projects (http:/ / www.cs.york.ac.uk/ library/ onlineprojlib/) and doctoral theses (http:/ / www.cs.york.ac.uk/ library/ onlinereports/) carried out in the Department. See http:/ / www.cs.york.ac.uk/ library/

Bookshop There is a branch of Blackwell's University Bookshop Ltd. On campus. It is an independent commercial concern, for which the University is not responsible in any way. The Department informs the bookshop which texts it recommends, when, and to how many students, but the bookshop staff decide what to get in stock.
Suggestions for additions to the stock of either of the libraries or the bookshop should be directed to the Library and Bookshop Liaison officer.

2.16.4 *Requesting documents from the University*

If you require an official University letter, perhaps confirming your student status, Council Tax exemption or to open a bank account you should apply to Registry Services, as follows:-

	Using form at
Undergraduates	http:/ / www.york.ac.uk/ admin/ uo/ DocumentrequestUG.html
Postgraduates	http:/ / www.york.ac.uk/ admin/ gso/ DocumentrequestPG.html

If you require an official University transcript of your results to date (for instance, for postgraduate study or job applications), you may request one online at
http:/ / www.york.ac.uk/ transcript/

Overseas Students who require a letter from the Department to support extension of stay in the UK should apply to the Departmental Office in the first instance.

2.16.5 *University-provided training*

English Language Support for International Students
The Centre for English Language Teaching (CELT) runs the York English for Academic Purposes Programme to provide English language support for international students. All overseas and EU students enrolled at York are eligible for free English language support; see: http:/ / www.york.ac.uk/ celt/ eap/ elp.htm

Students can choose whether to take courses, attend workshops or sign up for consultations with one of the CELT tutors. Each eligible student can take one free course, or the equivalent in workshops or consultations. For more information, see http:/ / www.york.ac.uk/ celt/

The York Award
The York Award is a personal development programme for students at the University of York. It addresses "key skills" such as communication, numeracy, improving one's own learning, working with others, information literacy, time management and negotiation. It is supported by several industrial organisations.
For further information, see

http:/ / www.york.ac.uk/ services/ careers/ skills.cfm

Languages for All
The Languages For All (LFA) programme offers students the opportunity to take a course in a foreign language in addition to their main subject of study. Languages in the LFA scheme are offered at various levels so a student can continue the study of a language they already know or start a new one. For further information, see http:/ / www.york.ac.uk/ inst/ ltc/ lfa/

3. Visiting Students

This section briefly sets out the pattern of study at York if you are a visiting student. You are probably registered for a Bachelor's degree at a university in another country. You have come to York, perhaps as part of an agreed Exchange Scheme, for a year (or part-year) of your studies.

3.1. Terms

The year of undergraduate study is split into three ten-week terms. You are expected to be available for teaching and examination from Monday to Friday throughout each term. Some exams take place on a Saturday. To be absent on teaching or exam days requires explicit permission.

3.2. Supervision

The Department assigns you a supervisor, who is a member of the teaching staff. As a minimum requirement, the University expects you to meet your supervisor at the start and end of each term. You should make contact with your supervisor as soon as possible to discuss your choice of modules. You might then arrange to meet at intervals during the term.

Supervisors combine academic and pastoral supervision. If you are ill or otherwise hindered in your studies you should let your supervisor know straight away. They are probably in a position to help, for example, by putting you in contact with appropriate professional advisors, or by seeking revised arrangements for any imminent assessments. For further details, see section 2.6.

3.3. Modules and credits

Programmes of study are organized into modules. In the Computer Science department, almost all modules are arranged to take place either in Part A (autumn term, usually with examinations in week 1 of the spring term) or in Part B (spring term, and first half of the summer term, usually with examinations in weeks 1 or 7-8 of the summer term). For further details, see section 16.1.2.

A York undergraduate is expected to take modules totalling 120 credits in each year of study, and visiting students should aim to do the same. The division of credits between Part A and Part B is usually either 40:80 or 50:70.

You should expect to choose modules taken by home students at a similar stage in their degree programme. However, it may be possible (subject to academic approval and timetabling constraints) to combine modules across years of the York degree schemes.

Some modules have prerequisites, i.e. prior knowledge or a module that students must have taken previously. If you wish to take a module with prerequisites you should consult the lecturer involved to check whether your prior knowledge is sufficient. For further details, see section 7.1. Some module prerequisites cannot be waived.

Each module is taught only once a year. It is not possible to re-take a module, for example in the hope of obtaining an improved result.

3.4. Assessment and marks

Almost all modules taught by the Computer Science Department are formally assessed. As a visitor, you are required to take the same assessments, at the same times, as home students.

If you have a disability you may be entitled to special conditions for the completion of assessments (both open and closed). University practice requires a written case supporting a request for such conditions to be submitted by the Department's Disability Advisor (see section 7.3). First consult your supervisor, and then supply written evidence of your needs as soon as possible after arriving at York.

3.5. Projects

Most York students in their third or fourth year take a 40-credit or 50-credit individual project as a major part of their programme. These projects are on topics individually selected by students, and supervised one-to-one by staff. Visiting students do not usually do this sort of project, but if you wish to explore the possibility contact the Chair of the Board of Studies. The Computer Science Writing (CSW) module can only be taken in conjunction with a project, so it is not normally available to visiting students.

3.6. English Language Support for International Students

The Centre for English Language Teaching (CELT) runs the York English for Academic Purposes Programme to provide English language support for international students. All overseas and EU students enrolled at York on undergraduate or postgraduate programmes are eligible for free English language support.

You can choose whether to take courses, attend workshops or sign up for consultations with one of the CELT tutors. You can take one free course, or the equivalent in workshops or consultations. For more information, see http://www.york.ac.uk/celt/

3.7. Languages For All

Languages For All modules are available to students across the University, whatever their degree subject. If you wish to take one of these modules as part of your formally credited study in York, consult the Language Centre directly. For further details, see http://www.york.ac.uk/inst/ltc/lfa/

4. Regulations

The Department will treat the breach of any of these regulations, or any of the University's regulations, as a serious disciplinary matter.

4.1. Smoking

The Department of Computer Science is classed as a public space and, as such, it is illegal to smoke in any part of the building. For these purposes, the Department of Computer Science building is defined as the footprint of the building; smoking is therefore prohibited in the entrance area and within the central courtyard surrounding the Pod.

Smoking is also not allowed in other University spaces used for teaching and other related activities.

Students and staff are required to abide by the University's policy on smoking. Smoking is permitted in outdoor spaces on campus providing that the 2-metre exclusion zone around buildings is observed. Ashtrays are provided outside the building so that smokers can dispose of their cigarettes conveniently.

4.2. Departmental Letterhead

The Departmental letterhead may only be used on official departmental business: it must not be used for incidental personal correspondence or for private dealings with companies or organizations. College notepaper is available for personal use: this should be used when a student wants to use printed University stationery. A supervisor may give a student specific permission to use the Departmental letterhead if they conduct official correspondence, e.g. as part of an individual project.

4.3. Keycards

All students of the department are issued with a keycard allowing 24-hour access to the facilities on the ground and second floors of the teaching wing (north) of the Computer Science building. You should not lend your keycard to anyone, including other departmental students. If you lose your card, University Security and the Departmental Laboratory & Facilities Manager should be informed as soon as possible; a significant charge will be made for a replacement card.

4.4. Damage to or Theft of Library Books

It is an offence to write in, mark or otherwise deface library books or periodicals. Anyone found to have done so will be charged for the full replacement and administrative costs, and may be subject to further penalties. Theft is treated as a serious disciplinary offence.

4.5. Photocopying or Scanning of Copyright Material

Scanning or photocopying material in copyright is restricted under law. In brief, single copies may normally be made of individual articles from journals or of relatively short extracts from books or other written works, provided the copy is intended for your research or private study. Otherwise, permission will need to be obtained from the copyright owner before a photocopy or photocopies can be made. In cases of doubt, the Registrar's Department should be consulted.

4.6. Departmental Computing Facilities

All new students are given a printed copy of these regulations, which set out the terms and conditions under which the Department's computing facilities are made available to students, and they are required to sign a declaration stating that they have read, understood and agree to abide by these regulations before they are issued with an account on the Departmental computers.

These regulations change from time to time to reflect changes in technology and the relevant law. The current version can be found at:-

http://www.cs.york.ac.uk/support/student-regulations

whilst the regulations listed below are those that were in force as of May 2010.

1. Departmental computing facilities must be used only within the Regulations and Guidelines issued by the University's IT Services. The following regulations apply in addition to the University regulations.
2. You may use the computing facilities administered by the Department of Computer Science only if
    1. you are a student registered for one of the Department's undergraduate degree programmes,
    2. you are a student registered for one of the Department's taught MSc programmes,
    3. you are a visiting student attending Computer Science modules, or
    4. you have written authorisation from the Head of Department in Computer Science.
3. Your authorisation to use the facilities of the Department is deemed to be withdrawn at the end of your programme or period of registration, and any information stored beyond the end of the authorised period may be destroyed without notice. Information may be retained centrally by prior arrangement with the Department.
4. The username and resources allocated to you are for your use only, and you will be held responsible for their use. They are provided for use in relation to your course of study. Personal work may only be undertaken subject to the University's Regulations and Guidelines. In particular, the username and resources must not be used for commercial purposes without written authorisation from the Departmental Laboratory and Facilities Manager. In such cases the Department may require payment of appropriate fees.
5. You must not make use of usernames and resources allocated to other users.
6. You must not connect any items of personal electrical equipment (including laptops) to the mains supply in the Department unless that equipment has been electrically safety-tested by the Departmental hardware staff. You must not unplug from the mains any item of Departmental equipment in order to plug in electrical equipment of your own.
7. You may connect a laptop or PDA to the Departmental wireless network as long as you observe the additional regulations set out on the Web page http://www.cs.york.ac.uk/support/wireless.php. You must not attempt to connect personal equipment to the Departmental network by any other means.
8. You may connect USB devices to the breakout boxes provided with each laboratory PC, but you may not connect any equipment by other means to Departmental computers without explicit permissions from the Laboratory and Facilities Manager.
9. The Department reserves the right to modify or withdraw privileges and access to resources.

10. You are reminded that under the terms of the Computer Misuse Act 1990 it is a criminal offence (i) to cause a computer to perform any function with intent to secure access to any program or databases held in any computer when it is known that the access is unauthorised, (ii) to use a computer in the commission of a further, more serious offence, such as fraud or blackmail, and (iii) to make an unauthorised modification of data or programs held in computers or storage media (for example, by introducing a virus).
11. Breaches of these regulations will be regarded as disciplinary offences and dealt with under the University disciplinary procedures as laid down in the Ordinances and Regulations. If disciplinary proceedings are brought against you under these regulations, the Head of Department may exclude you from access to all Departmental computing facilities pending the outcome of such proceedings. Offences under the Computer Misuse Act 1990 are punishable by substantial fines and terms of imprisonment.

4.7. Data Protection Act

The Data Protection Act 1998 came into force on 1 March 2000 and is concerned with

- the right of individuals to gain access to personal information held about them by an organisation or individual within it
- the right to challenge the accuracy of data held.

The terms of the Act relate to data held in any form, including written notes and records as well as electronic data. In accordance with the University Policy on Data Protection, it is the duty of students to ensure that any information provided by them to the University is accurate and kept up-to-date. Any student who is processing personal data about members of staff or other students, such as a student representative on a University committee or group, or a secretary of a student society, must ensure that they comply with both the University Policy and the requirements of the Act; it should be noted that this also applies to personal data about individuals held on web pages or accessed via them. More information on the Data Protection Act and the University's Policy, Procedures and Guidelines can be found at:

http:/ / www.york.ac.uk/ recordsmanagement/ dpa/ dppolicy2002.htm

4.8. Computer Misuse Act

The Department takes an extremely serious view of any student who attempts to decrypt the password file on any computer system. Students are reminded that it is a criminal offence (under the Computer Misuse Act 1990) to cause a computer to perform any function with intent to secure access to files when it is known that the access is unauthorized. Possession of programs that, if executed, would attempt to decrypt the password file will be taken as evidence of intent to secure unauthorized access.

The Department takes an extremely serious view of any student who indulges in anti-social behaviour in their use of the Department's computer systems. These systems are provided as an important and general-purpose resource that has to be shared amongst all students. Any student who maliciously prevents other students from accessing the computer systems is liable to exclusion from those systems.

4.9. Regulation of Investigatory Powers Act

It is Departmental policy that if a student is suspected of abusing the Departmental computer system, an authorised member of the software support staff has the right to examine the contents of any computer file used by that student on the Departmental computer system. The member of the software support staff who is carrying out the investigation will inform the student's supervisor and the Head of Department, and in certain cases the Chair of the Board of Studies, if there is evidence of abuse.

The contents of the relevant file(s) may be seen by other staff members of the Board of Studies only if the abuse is of such a serious nature that it must be considered at a full meeting of the Board.

Any such investigations will be carried out strictly in accordance with the terms of the Regulation of Investigatory Powers Act (2000). For further details see:

http://www.cs.york.ac.uk/support/rip.php

4.10. Libellous Statements on the Internet

Legal opinion is of the view that the Internet is a means of publication and that statements made in this medium may be regarded as libellous. Posting an article to a Usenet news-group or Web forum and the setting up of a page on the World Wide Web constitute publication in the eyes of the law.

Under English law, both the distributor (potentially, the University) and the author of a libel can be held responsible for the libel.

Potential damages from such libel actions could be high, as a large number of people world wide have access to any libellous statements and these people are likely to be those working in the area of the person libelled. That is, the libel is distributed to a highly-focused group on which it is likely to have the maximum effect.

No information may be transmitted internally or externally which could bring the University or Department into disrepute, or which contravenes laws, University or Departmental policy or conventions on equal opportunities. Information is understood to include text, images and sound. Transmission is understood to include printing information, posting information via electronic mail and bulletin boards such as Usenet News and Web fora, and providing information on distributed systems such as the World Wide Web. See also section 2.15 regarding recording of audio or video during lectures and tutorials.

The University expects that all publications—paper and electronic—will uphold the normal high standards of scholarship and debate.

5. Health and Safety

5.1. Introduction

The University's aim is to provide and maintain a safe working environment, which is without risks to health and offers adequate facilities and arrangements for the welfare of staff and students. It is the duty of all individuals to exercise personal responsibility, to familiarize themselves with Departmental instructions regarding safety procedures, and to do everything possible to prevent injury or damage either to themselves or to others. Information about safety and welfare matters is located on a notice board outside room CS101.

The University also regards harassment as a serious matter. Where serious allegations of harassment are proved by a formal investigation, disciplinary action (including dismissal or expulsion) may be taken against the harasser. In addition to any penalty imposed by the University, those responsible for harassing others may be subject to criminal and/ or civil proceedings.

See: http:/ / www.york.ac.uk/ admin/ eo/ Harassment/ for further details.

5.2. First Aid

5.2.1 Departmental First-Aiders

The departmental First Aiders can be e-mailed at <firstaiders@cs.york.ac.uk>. Departmental First-Aiders include:

Name
John Murdie
Oleg Lisagor
Mark Nicholson
David Pumfrey
Marc Thomas

Each first-aider is equipped with a first aid box.

5.3. Doctor or Ambulance

If an ambulance is required, dial 3333 (University emergency number) from any phone. This will ensure that the ambulance will receive accurate directions and arrive as quickly as possible.

If a doctor is required, day or night, dial the University emergency number (ext. 3333)

Further help and advice on healthcare issues is available from NHS Direct (tel: 9-0845 4647, http:/ / www.nhsdirect.nhs.uk/).

The Health Centre, located close to the Physics Building and Central Hall, is open only during office hours; its extension is 3290. It will not normally deal with accidents.

The nearest Accident and Emergency department can be found at York District Hospital, Wigginton Road (tel: 9-631313). An NHS Walk-in Centre is situated on Monkgate (tel: 9-674557). All accidents within the department must be reported to the Departmental Safety Officer (See section 7.3).

5.4. Fire and Other Emergencies

When the fire alarm is heard it is your responsibility to vacate the building quickly (without running) and quietly. In the laboratories, the supervising technician may direct your exit but it is your responsibility to know the location of the emergency exits. At the time of going to press, the locations of the fire assembly points on Heslington East are still to be determined. Please consult the fire notices in the Computer Science building for up-to-date information.

Do not re-enter the building until given permission to do so by a fire marshal.

5.5. Security

There have been a number of burglaries in the Department and valuable equipment has been stolen. If you are working in the Department outside office hours, it is in your own interest:

- To contact Security (tel. 4444) immediately if you are suspicious or concerned about any strangers seen wandering in the building
- To ensure that the external doors are locked after you have entered or left the building
- Not to open an external door to any stranger

Additionally, two sets of panic alarm buttons are located on the walls close to the windows in each of the software teaching laboratories. If pressed these will automatically alert Security to a problem.

5.6. General Safety

You are required to take reasonable care for the health and safety of yourself and others who may be affected by your actions or inactions. Make sure that you familiarize yourself with the following:

- University notices giving instructions on the action to be taken in cases of emergency, which are posted in the laboratories and elsewhere in the building
- "First Aid at Work" notices displayed in the laboratories
- The position of Emergency Exits
- The position of First-Aid boxes
- The position of the main power switch controls and emergency cut-outs.

Food and drink must not be consumed in the laboratories. Footwear must be worn at all times. Mobile phones may not be used in any part of the building. Technicians may refuse admittance to a laboratory or workshop to any person who:

- Is unsatisfactorily dressed
- Refuses to use the safety equipment provided (e.g. guards on drills).

5.6.1 *Hardware teaching laboratories*

1) Safety in the hardware teaching laboratories is the responsibility of the supervising member of the academic staff, hereinafter called the supervisor.
2) Neither demonstrators nor technicians can be held responsible for the safety of undergraduate students.
3) In principle, the supervisor should be present at all times when students are present. This does not preclude brief absences for good reason. In exceptional cases, longer periods of absence are acceptable, provided that the supervisor "drops in" frequently to make sure that all is well.
4) An exception is made for open laboratory classes, which have been classified by the Departmental Safety Officer as "low-risk". (An example is the time spent by students in the laboratory working on their MCP projects, outside scheduled practical sessions.) In such cases, the supervisor must conduct a risk assessment and agree it with the Departmental Safety Officer (section 7.3).

5.6.2 *Electrical safety*

If you are required to build electronic equipment as part of your project you will be under the authority of the Head of Hardware Support (see section 7.3). The design of such equipment must be approved by your academic supervisor and built to the standards of the University Safety Regulations, a copy of which can be obtained from the Laboratory and Facilities Manager (see section 7.3). Electrical equipment for your project brought in from outside (e.g. from your sponsor) must be tested and approved before use. You may not bring in electrical equipment for repair.

Mains voltages may be present in almost any item of equipment. In particular, computer terminals, oscilloscopes and other cathode ray tube displays will have voltages present in excess of 10 kilovolts. Undergraduates are not permitted to remove the cases of equipment, or to wire mains plugs or to replace mains connectors or fuses, unless directed by a technician or other member of staff.

All devices that contain cathode ray tubes should be treated with care; if a tube breaks there will be a vacuum implosion, which may cause others, as well as yourself, to be blinded.

In the event of someone experiencing an electric shock, switch off the current at the main power switch. This switch controls all power except the cleaners' wall sockets and the ceiling lights. Be careful not to touch the casualty's skin before the current is switched off. If breathing is failing or has stopped, you must start resuscitation immediately and shout for assistance. Note the time. Continue resuscitation until breathing is restored. You must not leave a casualty alone (unless you are yourself in danger if you remain) as they may stop breathing again or they may be unconscious and be unable to keep their airway open. Anyone who has required resuscitation must go to hospital.

6. Departmental Computing Facilities

6.1. Use of Departmental Computer Systems

As this is being written several months in advance of the move to the new building, please be aware that some of the details may be subject to change.

At the start of your first academic year you will be issued with a copy of the regulations (see section 4.6) that govern the use of the Department's computer systems, and you must sign a form to say that you have read and understood these rules and agree to abide by them. Only then will you be issued with an account (username and password) for the computer systems, and a card key and entry code for the building. The Department employs the same usernames allocated for the use of the IT Services systems, but the Computer Science and IT Services accounts are separate and will have different passwords. The card key and entry code allow you 24-hour access to the Software Teaching Laboratories in the Computer Science building.

Your use of Departmental computer facilities is restricted to work related directly to your programme of study and is subject to a strict quota on the amount of disk space available. You must not attempt to use Departmental computer facilities for financial gain.

Attempts to interfere with the Department's networks or computers or the accounts and files of other users will be treated as system abuse and dealt with accordingly. In such circumstances the Department reserves the right to withdraw computer accounts and recall card keys.

If you encounter any problems with Departmental equipment (including PCs, printers and scanners) you should not attempt to fix them yourself, but should report them by sending an e-mail to "faults". You should never press the power button or the reset button of a PC while it is running an operating system. If you wish to switch to running another operating system on the PC there are posters on the walls in the laboratories giving instructions on how to do this. You must not lock PC screens if you intend to be away from the PC for more than a few minutes - leaving screens locked for longer than this is highly anti-social. You should try to avoid touching PC screens with your fingers because it leaves marks which make the screen harder to view.

Personal computers (laptops and PDAs) may be connected to the Department's network by wireless connection in the building or by using the bench-top network sockets in the hardware and software teaching laboratories; connection by any other method is strictly forbidden (see section 4.6). For details of the departmental wireless network see:

http:/ / www.cs.york.ac.uk/ support/ wireless.php

Section 4.6 contains a full list of the terms under which the Department's computing facilities are made available to students.

6.2. Staff Responsible for Computer Systems

The member of staff with overall responsibility for the computer systems is the Laboratory and Facilities Manager. Software on the machines is in the charge of the Software Support Staff. Hardware is the responsibility of the Hardware Support Staff. For more details, see section 7.3.

6.3. Use of Laboratories

The software teaching laboratories are in CSE/ 066, CSE/ 069, CSE/ 070 and CSE/ 270. The hardware teaching laboratories are in CSE/ 166, CSE/ 168 and CSE/ 169.

Food and drink must not be consumed in any laboratory. No unauthorized persons are permitted in any laboratory.

6.3.1 Software Teaching Laboratories

The main Software Teaching Laboratories (CSE/ 069, CSE/ 070 and CSE/ 270) are available to all students; access to CSE/ 066 is limited to MSc students and fourth year MEng students. Access to all of these laboratories is on a 24-hour basis to holders of the appropriate card key who are authorised to know a main door entry code.

When practical classes take place in the Software Teaching Laboratories and not all computers are needed by students attending the class, the spare PCs are generally available for casual use. To minimize disruption, students attending a class are asked to prefer PCs located towards the front of the room so that spare ones at the back may be used by casual users.

There is one exception to the above rule. Occasionally, a practical is also a timed examination. Casual use of the laboratory is not permitted during an assessed practical of this sort, as it could compromise the examination arrangements. Notices stating that such an assessed practical is in progress, with start and finish times, will be displayed on the doors to the laboratory.

6.3.2 Hardware Teaching Laboratories

Access to the hardware teaching laboratories is permitted only when a member of staff is present. Access to the Hardware Teaching Laboratories during a timetabled practical session is restricted to students who are attending the scheduled practical.

6.4. Computer System Availability

The computer systems run 24 hours a day seven days a week, except for occasional periods of maintenance of which users are warned in advance by computer systems' "message of the day" and by other appropriate means. Note that these systems run unsupported outside normal working hours. Any problems that arise outside working hours will not be addressed until the start of the following working day.

When machines are unavailable because of a hardware or software failure, those machines still working will carry a notice of the problem.

6.5. Network Facilities

6.5.1 Electronic mail (e-mail)

All staff - lecturers, administrators, and technical staff - can be reached by electronic mail. Please use your Departmental or University email account to correspond with staff. Their usernames, together with their room numbers and internal telephone numbers, are available through the search facility on the Web page:-

http://www.cs.york.ac.uk/people

Lecturers' e-mail addresses are also listed in the "Internal Teaching Staff" section of this Handbook (see section 7.1).

6.5.2 World Wide Web

Both the Department and the University have a presence on the World Wide Web. Most lecturers have a "home page", and many use the Web as a means of distributing module information. The following URLs (Web addresses) will be useful to you:

URL	Description
http://www.york.ac.uk/	The University's home page
http://www.cs.york.ac.uk/	The Department's home page
http://www.cs.york.ac.uk/hdbk/	Online version of this Handbook
http://www.cs.york.ac.uk/support/	Departmental technical support
http://www-course.cs.york.ac.uk/	Course-related teaching material
http://www-course.cs.york.ac.uk/exam/	Past exam papers
http://www-users.cs.york.ac.uk/~username	Staff member's personal page
http://vle.york.ac.uk/	Yorkshare virtual learning environment

6.5.3 Web Forums

There are Web forums specific to each year of undergraduate study and to each MSc programme. These carry general announcements and information about coursework. They can be accessed at:

http://www.cs.york.ac.uk/forum/

6.5.4 Printing

Some of the teaching laboratories contain laser printers for self-service student use. A charge is made for printing. For details, see the Support web page "Student Printing Facilities":

http://www.cs.york.ac.uk/support/pages/Student_Printing_Facilities

Please be considerate in your use of the printers: avoid printing large jobs at peak times and remember to collect your printout once it has been printed.

6.5.5 Documentation

You will be given a variety of printed documentation in an introductory course on the use of the Department's computers, and you will be shown how to use the online documentation of

the operating systems in use. The availability of printed documentation specific to a module will be announced in lectures.

6.6. Technical Support

A wide range of technical information can be found on the "support" web pages at:

http:/ / www.cs.york.ac.uk/ support/

For assistance with matters concerning departmental computing facilities, contact the Support Staff by e-mail at one of the following addresses:

- e-mail faults@cs.york.ac.uk to report problems with printers or photocopiers and other obvious hardware problems
- e-mail support@cs.york.ac.uk with reports of other problems, and with requests for assistance (but see below)

If you have a question about how to do something, before e-mailing it to "support" you should search the "support" Web pages to see if you can find the answer there.

The progress of a "support" or “faults” request can be tracked using the SQUINT system:

http:/ / www.cs.york.ac.uk/ support/ squintuse.php

6.7. Buildings Maintenance

If you need to raise a request or concern regarding a computer science building related problem, such as room temperature, broken furniture etc, please email:-

buildings@cs.york.ac.uk

7. Staff

7.1. Internal Teaching Staff

The following table shows the names and acronyms of all members of academic staff who are members of the Board of Studies in Computer Science (at the time of going to press):

Forename	Surname	Acronym	Room	E-mail	Ext.
Dr Robert	**Alexander**	RDA	CSE/ 033	rda@cs.york.ac.uk	5474
Dr Neil	**Audsley**	NCA	CSE/ 137	neil@cs.york.ac.uk	5571
Professor Jim	**Austin**	JA	CSE/ 217	austin@cs.york.ac.uk	5629
Dr Chris	**Bailey**	CB	CSE/ 234	chrisb@cs.york.ac.uk	5659
Dr Iain	**Bate**	IJB	CSE/ 138	ijb@cs.york.ac.uk	5572
Dr Ian	**Benest**	IDB	CSE/ 246	idb@cs.york.ac.uk	5671
Dr Adrian	**Bors**	AGB	CSE/ 142	adrian@cs.york.ac.uk	5574
Professor Sam	**Braunstein**	SLB	CSE/ 015	schmuel@cs.york.ac.uk	5447
Professor Alan	**Burns**	AB	CSE/ 118	burns@cs.york.ac.uk	5529
Dr Paul	**Cairns**	PC	CSE/ 244	pcairns@cs.york.ac.uk	5674
Dr Ana	**Cavalcanti**	ALCC	CSE/ 035	alcc@cs.york.ac.uk	5478
Professor John	**Clark**	JAC	RCH/ 232	jac@cs.york.ac.uk	5354
Dr James	**Cussens**	JC	RCH/ 326	jc@cs.york.ac.uk	5371
Dr Alistair	**Edwards**	ADNE	CSE/ 243	alistair@cs.york.ac.uk	5672
Dr Dan	**Franks**	DWF	RCH/ 228	dwf@cs.york.ac.uk	5342
Dr Mike	**Freeman**	MJF	CSE/ 030	mjf@cs.york.ac.uk	5473
Dr Alan	**Frisch**	AMF	CSE/ 242	frisch@cs.york.ac.uk	5675
Dr Ibrahim	**Habli**	IH	CSE/ 132	ihabli@cs.york.ac.uk	5566
Professor Edwin	**Hancock**	ERH	CSE/ 113	erh@cs.york.ac.uk	5497
Dr Leandro Soares	**Indrusiak**	LSI	CSE/ 136	lsi@cs.york.ac.uk	5570
Dr Jeremy	**Jacob**	JLJ	CSE/ 235	jeremy@cs.york.ac.uk	5667
Dr Dimitar	**Kazakov**	DLK	CSE/ 241	kazakov@cs.york.ac.uk	5676
Dr Tim	**Kelly**	TPK	CSE/ 034	tpk@cs.york.ac.uk	5477
Dr Steve	**King**	SK	CSE/ 009	king@cs.york.ac.uk	5420
Dr Dimitrios	**Kolovos**	dkolovos	RCH/ 102C	dkolovos@cs.york.ac.uk	5167
Dr Daniel	**Kudenko**	DK	CSE/ 239	kudenko@cs.york.ac.uk	5679
Dr Suresh	**Manandhar**	SKM	CSE/ 240	suresh@cs.york.ac.uk	5677
Professor John	**McDermid**	JAM	CSE/ 008	jam@cs.york.ac.uk	5419
Dr Matthew	**Naylor**	MFN	CSE/ 238	mfn@cs.york.ac.uk	5668
Dr Mark	**Nicholson**	MN	CSE/ 134	mark@cs.york.ac.uk	5568
Dr Simon	**O'Keefe**	SOK	RCH/ 329	sok@cs.york.ac.uk	5375
Dr Manuel	**Oriol**	MO	RCH/ 102B	manuel@cs.york.ac.uk	5166
Professor Richard	**Paige**	RFP	RCH/ 102D	paige@cs.york.ac.uk	5168
Dr Nick	**Pears**	NEP	CSE/ 233	nep@cs.york.ac.uk	5658
Professor Helen	**Petrie**	HLP	CSE/ 210	petrie@cs.york.ac.uk	5603
Dr Stefano	**Pirandola**	SP	CSE/ 032	pirs@cs.york.ac.uk	5475
Dr Detlef	**Plump**	DP	CSE/ 236	det@cs.york.ac.uk	5670
Dr Fiona	**Polack**	FACP	RCH/ 224	fiona@cs.york.ac.uk	5337
Mr Simon	**Poulding**	SMP	RCH/ 102A	smp@cs.york.ac.uk	5165
Dr Christopher	**Power**	CP	CSE/ 241	cpower@cs.york.ac.uk	5673
Dr David	**Pumfrey**	DJP	CSE/ 135	djp@cs.york.ac.uk	5569
Dr Andrew	**Rae**	AJR	CSE/ 133	ajrae@cs.york.ac.uk	5567

Continued…….

Forename	Surname	Acronym	Room	E-mail	Ext.
Professor Colin	**Runciman**	CR	CSE/ 216	colin@cs.york.ac.uk	5628
Dr William	**Smith**	WS	CSE/ 141	wsmith@cs.york.ac.uk	5575
Professor Susan	**Stepney**	SS	RCH/ 331	susan@cs.york.ac.uk	5377
Professor Jonathan	**Timmis**	JT	RCH/ 234	jtimmis@cs.york.ac.uk	5361
Professor Andy	**Wellings**	AJW	CSE/ 119	andy@cs.york.ac.uk	5539
Professor Richard	**Wilson**	RCW	CSE/ 112	wilson@cs.york.ac.uk	5576
Dr Alan	**Wood**	AMW	CSE/ 237	wood@cs.york.ac.uk	5669
Professor Jim	**Woodcock**	JCPW	CSE/ 014	jim@cs.york.ac.uk	5446
Dr Tommy	**Yuan**	TY	CSE/ 247	tommy@cs.york.ac.uk	5697

Rooms starting 'RCH' are located in the Ron Cooke Hub.

7.2. External Lecturers

The following table shows the names and acronyms of all lecturers on Computer Science modules who are not members of the Board of Studies in Computer Science.

Name	Acronym	Room	E-mail
Mr Bill Freeman	wf	CSE/ 029	wf@cs.york.ac.uk

7.3. Administrative Responsibilities

The departmental administrative responsibilities of members of the Board of Studies and other members of staff with which students are most closely concerned are listed below.

Senior Administrative Responsibilities	Name(s)
Head of Department	Professor John McDermid
Deputy Head of Department (Teaching)	Dr Steve King
Deputy Head of Department (Research)	Professor John Clark

Administrative Responsibility	Name(s)
Admissions Tutor (MSc GTC)	Ibrahim Habli, Alex King
Admissions Tutor (MSc IT & MSc Comp)	Suresh Manandhar, Keith Maynard
Admissions Tutor (MSc SWE)	Tommy Yuan, Keith Maynard
Admissions Tutor (Research Degrees)	Richard Wilson, Filomena Ottaway
Admissions Tutor (SCSE)	Mark Nicholson, Alex King
Admissions Tutor (Undergraduate)	Nick Pears, Jenny Baldry
BCS Liaison Officer	Steve King
Bookshop Liaison	Adrian Bors
Careers Liaison Officer	Paul Keeler
Chair, Board of Examiners	Colin Runciman
Chair, Board of Studies	Jeremy Jacob
Chair, Departmental Research Committee	Alan Frisch
Chair, Departmental Teaching Committee	Alan Wood
Chair, Information Committee	Helen Petrie
Chair, Masters Teaching Committee 1	Iain Bate
Chair, Masters Teaching Committee 2	Andrew Rae
Chair, Research Studies Committee	Richard Wilson
Continuing Professional Development Courses Coordinator	David Pumfrey

Administrative Responsibility	Name(s)
Data Protection Officer	David Snowden
Departmental Administration Manager	Marysia Koc
Departmental Reports (yellow)	Andy Wellings
Disability Advisor	Alistair Edwards
Display Screen Equipment Assessment Coordinator	To be confirmed
EngD Centre Administrator	Dawn Ford
Examinations Administrator	Chris Linfoot
Examinations Officer	Marysia Koc
First Aid Coordinator	John Murdie
Functions Coordinator	Pauline Greenhough
General Office Manager	Anne Edwards
Graduate Administrator	Filomena Ottaway
Harassment Advisors	Fiona Polack, Katrina Attwood, Frantz Iwu
Head of Hardware Support	Peter Cooper
Head of Software Support	David Snowden
Higher Education Academy (Dept Contact)	Ian Benest
IEEE Student Adviser	Ian Benest
IET Liaison Officer	Ian Benest
Industrial Placements Consultant	Paul Keeler
International Students Coordinator	Leandro Indrusiak
Joint CS/ Maths BoS Secretary	Dr Detlef Plump
Laboratories, Teaching	David Hull (Laboratory & Facilities Manager)
Management Accountant	Teresa Birch
Marketing Coordinator	Emma Hodgson
Options Coordinator	Natalie Wheatley
PDS Coordinator	Paul Keeler
Postgraduate Programmes Manager	Louise Earnshaw
Prizes, Postgraduate	Simon O'Keefe
Prizes, Undergraduate	Simon O'Keefe
Programme Coordinator, MSc GTC	Ibrahim Habli
Programme Coordinator, MSc HCIT	Paul Cairns
Programme Coordinator, MSc IT & MSc Comp	Suresh Manandhar
Programme Coordinator, MSc NC	Jon Timmis
Programme Coordinator, MSc SCSE	Mark Nicholson
Programme Coordinator, MSc SWE	Andy Wellings
Project Coordinator (overall)	To be confirmed
Project Coordinator, Allocation	James Cussens
Project Coordinator, Marking	Alistair Edwards
Project Presentations	Adrian Bors
Reception Administrator	Pauline Greenhough
Research Student Recruitment	Alan Burns
Research Support Office Manager	Ginny Wilson
Returning Officer	Alistair Edwards
Safety Officer	David Hull

Administrative Responsibility	Name(s)
Secretary, BoE	Simon O'Keefe
Secretary, BoS	Simon O'Keefe
Seminar Coordinator	Ana Cavalcanti
Senate	John McDermid, Alan Frisch, Oleg Lisagor
Staff Representative (CS/ Maths students)	Will Smith
Staff Representative (First year students)	Ian Benest
Staff Representative (Second year students)	Will Smith
Staff Representative (Third year students)	Daniel Kudenko
Student Records Coordinator	Natalie Wheatley
Taught Programme Students' Handbook Assistant Editor	To be confirmed
Taught Programme Students' Handbook Editor	Chris Bailey
Timetabling Officer	Natalie Wheatley
UCAS Day Arrangements	Dimitar Kazakov, Jenny Baldry
Undergraduate Prospectus	Nick Pears
University (J.B. Morrell) Library Liaison	Adrian Bors
University Magazine	Emma Hodgson
University Open Day Organizer	Dimitar Kazakov
Visiting Student Admissions	Suresh Manandhar
World-Wide Exchange Scheme Coordinator	Daniel Kudenko

8. Boards and Committees

8.1. Board of Examiners in Computer Science (BoE)

The Board of Examiners in Computer Science consists of all the staff members of the Board of Studies together with the External Examiners in Computer Science and any member of the academic staff of the University involved in an examination in Computer Science.

This Board receives the results of examinations from those of its members who have assessed them, and presents the results to the appropriate (possibly Combined) Board of Studies. The Board of Studies then presents its recommendations for the award of degrees to the Senate of the University. The Board of Examiners has absolute discretion in its recommendations for the award of a degree. The officers of the Board of Examiners are as follows:

Professor Colin Runciman	Chair
Dr Simon O'Keefe	Secretary

8.2. Board of Studies in Computer Science (BoS)

The Board of Studies is responsible for the department's taught programmes (graduate and undergraduate) and most other undergraduate and graduate student matters. It is constituted in accordance with the University Ordinances:

http:/ / www.york.ac.uk/ admin/ aso/ ordreg/ 1.htm

There are full meetings of the Board of Studies in weeks 2 and 9 of every term. (In Autumn week 2, open minutes are received, but no open business decisions are made.)

8.2.1 Membership

The membership of the Board of Studies in Computer Science includes all full-time teaching staff, current student representatives and certain co-opted staff. See section 7.1 for a list of teaching staff. The officers of the Board of Studies are as follows:

Dr Jeremy Jacob	Chair
Dr Simon O'Keefe	Secretary

The following student members are elected during the autumn term. See section 2.12 for a student view of being a student representative.

One First year student representing all first year undergraduates
One Second year student representing all second year undergraduates
One Third year student representing all third year undergraduates
One Fourth year student representing MEng fourth years
One MSc IT student representing MSc IT students
One MSc SWE student representing the MSc SWE students
One MSc SCSE student representing the MSc SCSE and SSE students
One MSc Computing student representing the MSc Computing students
One MSc HCIT student representing the MSc HCIT students
One Research student representing research students

Two MSc GTC students representing MSc GTC
One MSc NC student representing MSc NC students
One EngD student representing EngD students

The student representative on the CS/ M Executive may attend meetings of the Board of Studies in Computer Science, but is not a voting member. The current student representatives can be found at:

http:/ / www.cs.york.ac.uk/ bos/ BoS.php

The up-to-date membership is summarised at:

http:/ / www.cs.york.ac.uk/ bos/ current/ Members.php

Student representation on BoS is currently under review (Autumn 2010) along with other working methods of the Board.

8.2.2 Remit

Specific concerns of the Board of Studies include the design, organisation and teaching of programmes and modules; consideration of methods of teaching and assessment; the supervision of the academic progress of students (undergraduate and graduate); the approval of variants from the normal course content or structure (including elective modules, non-standard placements etc); the approval of graduate students' reports; the organisation of examinations (including special requirements for particular students or particular module examinations) and the consideration of assessment results presented to it by the Board of Examiners.

The Board of Studies is not responsible for the operation of the Department's computing facilities or any other resource matter. The University defines resourcing and staffing issues concerning teaching to be the responsibility of the Head of Department or the Deputy HoD (Teaching).

Students (or staff) wishing to raise matters with the Board of Studies should communicate with the officers of the Board. An e-mail notice is sent out to all current members of the Board before each meeting. However, many issues can be dealt with outside meetings. This is particularly the case where the issue concerns individual people or an individual module.

The following are classed as "reserved" business, from which student members of the Board shall be excluded from discussion and voting:

1) Matters involving individual students or members of staff, including such questions as teaching-loads for individuals, requests for leave of absence, and the evaluation of performance
2) Methods of examination marking where knowledge of these could affect examination tactics
3) Examination results (including the award of postgraduate degrees)
4) The appointment of examiners
5) The allocation of research money

Members of staff registered for York degrees will be excluded from discussion of and voting on issues relating to those degrees, (e.g. a member of staff registered for a PhD cannot be present during business relating to other PhD students). Staff are also required to declare any conflicts of interest when considering named individuals, e.g. for degree awards.

8.3. Computational Biology Executive Committee

For the MRes programme in Computational Biology (see section 26) there is a Combined Board of Studies comprising all members of each department's Board of Studies. The day-to-day administration of the programme is undertaken by an Executive Committee, whose members are:

Dr James Cussens	Chair (Computer Science)
Ms Emma Rand	Course Organiser (Biology)
Prof Rod Hubbard	Admissions Officer (Chemistry)
Dr. Mike Thom	Assessment Officer (Biology)
Dr Gavin Thomas	External Placement Organiser (Biology)

8.4. Computer Science / Mathematics Executive Committee

For the joint programmes in Computer Science and Mathematics there is a Combined Board of Studies comprising all members of each department's Board of Studies. The officers of the combined Board of Studies are:

Dr Gustav Delius	Chair (Mathematics)
Dr Detlef Plump	Secretary (Computer Science)

In addition, there is a small Executive Committee made up of representatives of the Board of Studies of each department. The Executive Committee is responsible for the co-ordination of the subjects in the programme, and for advising combined programme students on their programme of studies.

8.5. Departmental Teaching Committee (DTC)

The Departmental Teaching Committee is a sub-committee of the Board of Studies, to which it reports. It meets in week 6 of each term. The DTC is responsible for undergraduate teaching, except that all matters relating to the MEng fourth year are in the remit of the Masters Teaching Committee (MTC). The MRes Computational Biology programme is outside the remit of the DTC. The DTC normally holds open meetings, but staff members may consider closed business when appropriate.

The DTC considers the principles on which the Department's taught programmes (undergraduate) are run, within policies approved by the Board of Studies. This includes the co-ordination of teaching across and within years, and module content. The DTC discusses, and recommends to the Board of Studies, strategic changes to the Department's programmes as a whole.

DTC issues module and assessment schedules and approves module descriptions for undergraduate programmes.

The committee:

1) Reviews the annual report of undergraduate teaching that is submitted to the University Teaching Committee
2) Responds to the University Teaching Committee
3) Reviews student feedback on end-of-term (yellow) forms
4) Reviews reports of external examiners (at the autumn meeting) and defines an action plan
5) Reviews teaching and assessment plans (at the autumn meeting)
6) Reviews the response to the action plan (at the summer meeting).

The officers of the DTC are:

Dr Alan Wood	Chair
Mrs Anne Edwards	Secretary

It is a requirement of the University that the committee be chaired by a member of staff. In addition, there are three staff-student pairs, namely one representative pair for:

- All first year undergraduate programmes
- All second year undergraduate programmes
- All third year undergraduate programmes.

A Computer Science/ Maths representative is also a member of the Committee.

The DTC provides a channel of communication between students and staff. It takes responsibility for the day-to-day running of undergraduate modules, and is responsible for monitoring and controlling the effectiveness of the Department's teaching. This is effected by a brief written report from each year-pair, considered at each termly meeting, and a review of student feedback on modules.

The staff and student representative for each year carry joint responsibility for monitoring and reacting on a day-to-day basis to issues that arise in their year's modules. In performing these duties, the representatives may consult or involve other staff and students. However, only the designated representatives or their nominated stand-ins are members of the DTC.

The DTC is not responsible for monitoring or controlling resources such as buildings, computers, library stock or laboratory equipment. Resources are the concern of the Head of Department (or deputy).

8.6. Masters Teaching Committee (MTC)

The Masters Teaching Committees are sub-committees of the Board of Studies, to which they report, that collectively deal with the postgraduate taught programmes in the department. Details of each committee's responsibility for the different programmes are defined as follows:-

- MTC1
    - MEng fourth years
    - MSc Information Technology and its diploma variant
    - MSc Software Engineering, and its diploma and certificate variants
    - MSc Natural Computation and its certificate variant

    - MSc Human-Centred Interactive Technologies
    - MSc Computing
    - MSc Social Informatics and Interactive Technologies
    - Individual projects for MMath students

- MTC2
    - MSc Safety Critical Systems Engineering, and its diploma and certificate variants plus the Certificate SSE
    - MSc Gas Turbine Control
    - EngD Large Scale Complex IT Systems

For each committee there is one meeting each term. The committees are responsible for masters-level teaching. They issue teaching and assessment schedules and approve module descriptions for masters-level programmes. The committees:

1. Review the annual report of postgraduate teaching that is submitted to the University Teaching Committee
2. Review student feedback
3. Review reports of external examiners (at the Spring meeting) and defines an action plan
4. Review teaching and assessment plans (at the Spring meeting)
5. Review response to the action plan (at the Autumn meeting).

The officers of the committees are:

Dr Iain Bate	Chair, MTC1
Dr Andrew Rae	Chair, MTC2
MTC1	Secretary (1)
MTC2	Secretary (2)

In addition, there are co-ordinators and student representatives for each programme as well as the Postgraduate Programme Manager.

The committees provide a channel of communication between students and staff. They take responsibility for the day-to-day running of postgraduate modules and are responsible for monitoring and controlling the effectiveness of the Department's teaching. This is supported by a brief written report from each staff-student pair, considered at each meeting, and the review of student feedback on modules.

The staff and student representatives for each programme carry joint responsibilities for monitoring and reacting, on a day-to-day basis, to issues that arise in their modules. In performing those duties, the representatives may contact or involve other staff or students. However, only the designated representatives or their nominated stand-ins are members of the committees.

The MTC committees are not responsible for monitoring or controlling resources such as buildings, computers, library stock or laboratory equipment. Resources are the concern of the Head of Department (or deputy).

8.7. Departmental Research Committee

This committee comprises heads of the research groups and meets regularly to discuss strategic research issues of departmental significance. For example, it is responsible for producing responses to the HEFCE's Research Excellence Framework. The committee has a small budget that it can use to respond to requests for travel funding for research purposes - there are four calls a year - and is involved in the allocation of departmental research technicians to projects.

Dr Alan Frisch	Chair

8.8. Departmental Safety, Health, Environment & Fire Committee (SHEF)

The Departmental Safety, Health, Environment & Fire Committee is responsible for reviewing the safety procedures within the Department, including receiving reports on accidents that have occurred and initiating action to prevent future occurrences.

Professor John McDermid	Chair
Mr David Hull	Safety Officer

9. Professional Institutions and Learned Societies

9.1. British Computer Society

The BCS, representing practitioners in every area of computing, was founded in 1957 after some years of increasing contact between one group of people with scientific and engineering interests and another group with industrial and commercial interests. Since 1968, the BCS has had a professional structure: examinations (in two parts, plus a project) are set for Membership. Members with sufficient experience may become Fellows. Members (MBCS) and Fellows (FBCS) can obtain Chartered Engineer status (CEng).

In 1971, the BCS established a Code of Conduct for the computing profession. The Society is currently active in the fields of privacy, legal protection of computer programs, and the establishment and maintenance of technical standards, this latter through the British Standards Institute and international bodies. The Society publishes a number of magazines and journals, including *IT Now* which is a monthly publication devoted to short topical and expository articles, new items, reports of meetings, announcements and book reviews; and the *Computer Journal* which is a quarterly publication devoted to original papers and articles of permanent interest. Members receive the former in return for their membership. Members can purchase copies of the Computer Journal at a favourable rate. Under reciprocal arrangements, BCS members can obtain the publications of the (U.S.A.) Association for Computing Machinery at reduced rates.

Students can obtain membership details, including those of the reduced fees for students, and application forms from the Society's web pages at http:/ / www.bcs.org.uk/

9.1.1 BCS exemption

Membership of the British Computer Society entails passing the Society's Part I and Part II examinations and the Professional Project. (These educational requirements are necessary, but not sufficient, for Membership.) Part I entails broad coverage of CS and IT at a modest level. Part II entails study of a specialist area in some depth. The Professional Project must be of a 'practical and problem-solving nature'.

Exemption from Part I and Part II examinations and Professional Project:

1) MEng Computer Systems and Software Engineering, with honours
2) BEng / BSc Computer Science, with honours

Exemption from Part II (only) examinations and Professional Project:

- MSc Safety Critical Systems Engineering
- MSc Software Engineering (provisional exemption)

Exemption from Part I (only) examinations and Professional Project:

- MSc Information Technology

No exemptions at present:

- MEng Computer Science with Artificial Intelligence
- BEng Computer Science with Embedded Systems Engineering
- MEng Computer Science with Embedded Systems Engineering
- MEng Computer Science with Business Enterprise Systems

These degree programmes have been introduced since the last accreditation visit. The next visit is due in 2012, and we will apply for exemption backdated to when the degrees were introduced.

No automatic exemptions of any kind:

- BSc Computer Science / Mathematics (EQ)
- MMath Mathematics / Computer Science (EQ)

The compulsory taught material in the combined programmes falls short of what is required (all optional material being invisible for the purposes of exemption) and there is no guarantee that a graduate will have completed a project; and, if they have, that it was of a 'practical and problem-solving nature'. If these concerns can be addressed in any individual case, then exemption from any or all of Part I, Part II and the Professional Project can be obtained. Graduates in this position should consult with their Computer Science supervisor or the BCS liaison person (see section 7.3).

9.2. Institution of Engineering and Technology

The Institution was formed from the merger of the IEE and IIE in 2006. It is an international organisation with more than 150,000 members in 127 countries ranging from students to distinguished and highly qualified members of the profession. Over a quarter of the members live and work outside the UK, and IET centres exist in Europe, North America and Asia-Pacific. The IET provides a global knowledge network to facilitate the exchange of ideas and promote the positive role of science, engineering and technology in the world.

The IET:

- Is licensed by the Engineering Council to award professional registration qualifications (e.g. CEng, IEng, EngTech, ICTTech)
- Acts as the voice for the profession in matters of public concern
- Sets standards of qualifications
- Accredits more than 1000 degree programmes in relevant subjects at universities and colleges
- Provides an extensive range of lectures, meetings, conferences, seminars, residential vacation schools and publications designed to enable members to keep abreast of developments
- Sets standards for the professional conduct of its members
- Operates a computer-assisted information service, INSPEC, which has the world's largest computerised database in the English language in physics, electro-technology, computer science and control engineering
- Publishes twenty-one research journals

- Publishes two fortnightly periodicals which provide for rapid dissemination of short research contributions
- Publishes a fortnightly magazine and a student and graduate magazine
- Publishes conference publications and colloquia digests
- Awards £200k worth of scholarships, prizes and grants to students every year
- Awards 12 medals a year for outstanding contributions to Engineering and Technology.

The IET headquarters at Savoy Place in London (next door to the Savoy Hotel) contains two lecture theatres, a number of meeting rooms, a Library, and a Members' bar where coffee and newspapers are provided. The IET Library, which incorporates the British Computer Society Library and the Institution of Manufacturing Engineers Library, is available to members for borrowing books from the extensive collection and for obtaining photocopies of articles from journals and conference proceedings. The Technical Information Unit has a team of highly-trained technical specialists who are available to answer enquiries on technical, commercial, educational and historical aspects of engineering and technology. Regional Engineering Centres have been established in Birmingham and Glasgow, and offices in Beijing, Hong Kong, Bangalore and New Jersey.

While engineers may change jobs or work abroad, the IET is always there as a "professional home", providing a base from which it is possible to network with others in the profession. It provides this through one or more Professional Networks. It operates a Careers Advisory Service and a local mentoring scheme. You may set up your own e-mail alias with IET.

It is possible to join as a student and upon graduation you will become a full member entitled to use the letters MIET after your name (provided the annual subscription is paid). Before joining as a student, you are advised to contact the IET Liaison Officer.

At about the age of thirty, a member should consider applying for registration as a Chartered Engineer or Incorporated Engineer. If successful, it is permitted to use the designations CEng or IEng after your name (again, provided the annual subscription is paid).

Registering as an engineer is a two-way recognition of professional competence requiring proof of educational, technical and managerial skills. This is achieved through a form that must be completed and success at an interview.

The MEng degree in Computer Systems and Software Engineering satisfies the educational requirements for CEng. The BEng/ BSc in Computer Science satisfies the education requirement for IEng. BEng/ BSc students who wish to register as CEng will need to prove that they have undertaken further learning such as would be provided by an accredited advanced MSc in computer science.

In 2010, the annual membership rates were:

Student	£20.00
Member MIET	£117.00
Member and professionally registered	£145.00
Member and Engineering Council registered	£174.00

Students can pay £50 for the duration of their course (but contact the IET Liaison Officer first).

If UK income tax is paid, income tax relief can be claimed on both your subscription and any payments made for IET journals. Application forms for student membership are available on line.

The URL for the IET is http:/ / www.theiet.org.uk/

After joining the IET, it is possible to sit on organising committees and contribute to the work of the IET in your chosen area of work and in your local geographical area.

9.3. Institute of Electrical and Electronics Engineers

The Institute of Electrical and Electronics Engineers (IEEE) was founded in 1884 and is the world's largest professional engineering society. Its membership of over 375,000 people worldwide is divided geographically into 10 regions (York is in region 8) within which there are 329 local IEEE Sections serving as centres of activity at the local level (York is in the United Kingdom and Republic of Ireland section). Internationally the IEEE is split into 38 Societies (for example the Computer Society and the Systems, Man and Cybernetics Society), which together produce more than 144 publications.

The purposes of the IEEE are:

- To advance the theory and practice of electrical engineering, electronics, computer engineering and computer sciences, and the allied branches of engineering and the related arts and sciences. It achieves this by holding meetings for the reading and discussion of professional papers, and the publication and circulation of works of literature, science and art.
- To advance the standing of members of the profession it serves. It achieves this by the conduct and publication of surveys and reports on matters of professional concern to the members of such professions, collaboration with public bodies and with other societies for the benefit of the engineering professions as a whole, and the establishment of standards of qualification and ethical conduct.
- To enhance the quality of life for all people throughout the world through the constructive application of technology in its field of competence. It endeavours to promote understanding of the influence of such technology on the public welfare.

Members belong to an appropriate class of membership depending upon their experience and qualifications. The classes are as follows.

- Fellows (F.I.E.E.E.): a distinction conferred by invitation of the Board of Directors upon a person of outstanding and extraordinary qualifications and experience in IEEE designated fields, who has made important individual contributions to one or more of these fields.
- Senior Members (S.M.I.E.E.E.): the highest grade of membership for which application may be made. It requires experience reflecting professional maturity. A candidate shall have been in active professional practice for at least 10 years and shall have shown significant performance over a period of at least five of those years.

- Members (M.I.E.E.E.): a professional grade limited to those who have demonstrated professional competence in IEEE designated fields.
- Associate: a grade for technical and non-technical applicants who do not presently meet the qualifications for Member grade, but who would benefit through membership and participation in the IEEE and for those who are progressing, through continuing education and work experience, towards the qualifications for Member grade.
- Student: a member who is a registered undergraduate or graduate student currently enrolled for at least 50% of a normal, full-time programme of study in electrical engineering or electronics engineering, computer engineering and computer sciences, an allied branch of engineering, engineering technology or the related arts and sciences.

Students taking the MEng Computer Systems and Software Engineering, BEng / BSc Computer Science, BSc Computer Science / Mathematics (Equal) and postgraduate students undertaking a research degree in Computer Science are eligible for student membership. The IEEE does not offer a route to Chartered or Incorporated Engineer status.

In 2010, the annual student membership rate was $27.00 (approximately £17.00) for which you receive the magazine IEEE Spectrum. Membership of the Computer Society was $40.00 (including membership of the IEEE) for which you receive the journal IEEE Computer and free access to hundreds of on-line training courses for subjects such as Java and XML. Full members paid $147.00 and an additional $50 for membership of the Computer Society.

Application forms for student membership are available at http:/ / www.ieee.org/

The York IEEE Student Branch is at http:/ / www.cs.york.ac.uk/ ieee/

9.4. Institute of Mathematics

BSc students in Computer Science and Mathematics may apply for membership of the Institute of Mathematics and its Applications. The Institute takes an active interest in the mathematical foundations of formal programming. It has a long-standing interest in mathematical modelling of all kinds, and in numerical analysis.

Further information may be obtained from the IMA's website at http:/ / www.ima.org.uk. The student subscription for 2010 was £5.00.

General Information Related to Taught Programmes

- This section of the handbook contains material concerning academic matters that are of general relevance to taught programmes.

- For general information relating to students on any taught programme, see the previous section of this handbook.

- For specific information on a particular degree scheme, see the last section of this handbook.

10. Academic Misconduct

10.1. The University's Statement on Academic Misconduct

You are responsible for ensuring that your work does not contravene the University's rules on academic misconduct (see http:/ / www.york.ac.uk/ admin/ aso/ ordreg/ r5.htm). The University takes a very serious view of such misconduct and penalties will be applied if you are found to have attempted to mislead examiners. Forms of academic misconduct include:

- Cheating - deliberate failure to comply with the rules governing examinations, e.g. by making arrangements to have unauthorized access to information
- Collusion - assisting another individual to gain advantage by unfair means, or receiving such assistance yourself
- Fabrication - misleading the examiners by presenting work for assessment in a way which intentionally or recklessly suggests that you have collected factual information which has not in fact been collected, or falsifies factual information
- Personation - producing work on behalf of another, in order to deceive the examiners, or soliciting another individual to act or appear as yourself, or to produce work on your behalf
- Plagiarism - incorporating within your work without appropriate acknowledgement material derived from the work (published or unpublished) of another

If you have any queries about what constitutes academic misconduct, and in particular, about the proper attribution of material derived from another's work, you should seek advice from your supervisor or tutors.

The penalties for academic misconduct will depend on the seriousness of the offence. Students found guilty of academic misconduct may, for example, have their degree class reduced, fail their degree or be asked to leave the University.

If you are taking elective modules in another department check the Academic Misconduct rules in that department. There may be small but significant differences in the definitions of, for instance, acceptable collaboration in different disciplines.

10.2. Online Tutorial on Academic Integrity

At an early stage in your programme, you will be required to complete a standard online tutorial on Academic Integrity.

10.3. Avoiding Plagiarism and Collusion

Avoid plagiarism by always acknowledging the sources of the material you have used (including software and information on the web). If you copy a passage of text verbatim, clearly mark the entire extent of the quotation using quotation marks or an italic font, and cite its source. Record unpublished work, such as an email or a conversation as 'private communication'. Treat lecture materials as published materials too. When you are collecting material from online sources for an assessment, it is tempting to use "cut and paste". Ideally,

you should re-express the source material in your own words, but you should certainly note carefully where the material was taken from so that you can later construct a full citation.

In programs submitted for assessment, do not "re-invent the wheel": if you find a piece of code written by someone else that does what you want, use it. However, be sure to include a comment acknowledging its source and making clear that you understand how it works.
Avoid collusion by following the Department's guidelines for mutual assistance and collaboration given in section 10.4.

10.4. Guidelines on Mutual Assistance and Collaboration

10.4.1 General guidelines

If an assessment is completed by students working in pairs, or in groups, you should be given explicit guidance about the level of acceptable collaboration within each pair or group. In some assessments, you may be given explicit encouragement to involve other students in a specific aspect of your work, such as evaluation and testing. Aside from such explicitly permitted exceptions, the following guidelines apply.

While an open assessment is in progress, you may discuss it with your fellow students only to understand the nature of the problems or questions set, not to find out how to solve or answer them. What you submit must be your own work. Do not collaborate when producing the solution or answer to an assessment. Do not copy another student's work, and do not allow another student to copy yours. If in doubt as to whether you may seek or give assistance of some kind, ask the member of staff who set the assessment.

When ***writing an essay or report*** for an open assessment, discussion and collaboration are permissible in the initial process of determining the nature and requirements of the question. You will then need to select relevant pieces of information from available sources and to evaluate their usefulness and consistency. In this process of selection and evaluation, often involving careful analysis and judgement, you are ***not*** permitted to work with others. Nor may you share the details of your own essay or report. All information used in your essay or report drawn from any source other than your own work and ideas must be explicitly referenced.

When an assessment requires the ***development of hardware or software***, discussion and collaboration are again permitted in the initial process of examining and clarifying requirements - though only the setter of the assessment can rule on any perceived ambiguities. The subsequent work of design, implementation and testing should essentially be done alone. If you are stuck for want of a minor piece of specific information (eg. the symbol for some primitive operation, or the meaning of a particular diagnostic) it is acceptable to ask another student, but the design and detailed method of solution must be your own work.

11. Options and Electives

11.1. General

The University does not normally allow you to take more (or fewer) than the specified number of credits a year; extra options cannot be formally taken or recorded against your university record.

The University does not normally allow you to repeat modules.

11.2. Options

11.2.1 Choosing options

In the second, third or fourth year you may be required to select optional modules by a process that is initiated by the Department at the beginning of the preceding Summer Term. This process is performed online; if you are on industrial placement you have access to the same process.

You should check your individual programme scheme for further details of the options available and seek advice on your choice of options from your supervisor.

Note that part time MSc students should see Section 28.2.1 before selecting any options

You may be allowed to take one or more modules in other departments (so-called 'electives'); see Section 11.3.

11.2.2 Changing options

Students may drop or add a module in Part A not later than Aut/ 2/ Fri, and may drop or add a module in Part B no later than Spr/ 2/ Fri, providing that they attend the whole of the module to which they are changing and complete the relevant (paper-based) change of module form obtainable from the Departmental Office.

11.2.3 Cancellation of modules

The University reserves the right in exceptional circumstances to change the menu of modules on offer. A module may be cancelled for the following reasons, among others:

- too few students opting to take the module;
- impossibility of timetabling the module in a suitable room; and
- unavailability of a member of staff to teach the module.

11.3. Electives

11.3.1 General

You may be able to apply to take elective modules as 10 or 20 credits of your study (see Section 11.3.3 for where this is allowed). In all cases, the approval of the Chair of your Board of Studies must be obtained (Section 11.3.2). If you obtain permission you should then complete the ' Registration for an Elective Module' form from the Departmental Office.

You are responsible for ensuring that you are registered for the modules you wish to do, and that your total number of credits is correct. Module registrations can be checked at:-

https:/ / evision.york.ac.uk/

You must comply with the rules of the department offering the module (for example, concerning attendance, submission of work and referencing guidelines).

You should note that some departments set quotas for their electives.

11.3.2 Approving an Elective

1. The Chair of your Board of Studies must be satisfied that the syllabus of any elective module is genuinely distinct from your normal programme of study, that the module is sufficiently demanding and that it involves a full university assessment of your performance: first year modules are rarely acceptable.

2. The elective module must not impinge on your main commitments: if attendance at the elective clashes with commitments on your main modules, you will have to forgo the elective.

3. The results of the assessment must available to this department by Sum/ 9/ Fri. You should check this with the host department before you select an elective.

11.3.3 Who may take electives, and how many

1. Third year single subject students may apply to import up to 20 credits from any undergraduate programme in any other department.

2. Fourth year single subject students are not normally allowed to take an elective module.

3. Third year maths students (3M1, 3M3) may apply to do one 10-credit elective in their final year.

4. Third year MMath students (3N1 and 3N3) may apply to do one 10 credit elective in their third year, to replace a CS module.

5. Fourth year MMath students (4N1 and 4N3) may apply to do one 10 credit elective in their final year, to replace a Maths module .

11.4. Un-assessed modules

The Department offers some un-assessed modules.

11.4.1 Crash Course on C (CCC)

All non-stage 1 undergraduate students are invited to attend the Crash Course in C (CCC), which is an unassessed voluntary module. Knowledge of C is required for the modules LSA, CGV and CGO and all students who do not already have such background are encouraged to attend this module. It is also useful for students who may choose to use C in their projects or who may be required to program in C on an industrial placement.

11.4.2 Setting up a Business (SUB)

This course is aimed at both the student who wants to set up a company as well as the one who just wants to hear about how companies are actually built. It presents real life stories and will help any one who is interested in how a company could be set up. The course is

aimed at providing an overview to what's involved. It is aimed at providing a real life introduction, rather than a business technical view. An essential element is hearing from real business people on how they set up their companies and got going, the good times and the bad. At the end of it, students will still need to take further advice, but should have a better idea of the issues that they will need to address.

12. Transfers

12.1. General

If you are considering a transfer you should consult:-

http://www.york.ac.uk/admin/uo/cfm/transfer/studentguide.htm.

12.2. Transfers involving only Computer Science

Transfers within programmes run by the Board of Studies in Computer Science are restricted by various external regulations. The definitive position is given in the relevant programme details (for example, regulations for transfer between BEng/BSc and MEng in both directions are given in Section 19.2.1). Students applying for transfer between prorgrammes within Computer Science must talk to their supervisor, and complete a form available from Reception to request the transfer. Both supervisor and student must sign the form. Transfers on to a programme with a year in industry must also be signed by the Industrial Placement Consultant (see Section 7.3).

Any transfer that lengthens the degree, including transfer on to a programme with a year in industry, must be completed before the start of the second year. Since the transfer takes time to take effect, students must apply to transfer before the end of the summer term of their first year. Later transfers can normally only be made by application to the University's Special Cases Committee; this requires that the Chair of the Board of Studies prepare a case, and will require the student to brief the Chair and provide a more detailed written request.

Transfer from MEng to BEng/BSc cannot be accepted after the end of the second year. Students who do not meet the conditions for continuation on an MEng at the end of their second year will be required to transfer to the BEng/BSc for their third year. Transfers from the programmes with a year in industry to the standard BEng/BSc and MEng programmes are required for those students unable to obtain a placement. If, having registered for a programme with a year in industry, a student decides that they do not after all wish to have a placement, then they must inform the Industrial Placements Consultant (see Section 7.3) no later than the start of the second year.

Note: The Joint Board in CS/Maths is a different board of studies from Computer Science; see Section 12.3.

12.3. Transfers involving Computer Science and another Board of Studies

Permission for transfers between Boards of Studies must be obtained from both Boards of Studies concerned: the importing Board and the exporting Board.

Requests for transfers between Boards of Studies are given careful and sympathetic consideration. However, it is not always possible to arrange the transfer. For example, the destination programme may be full, or you may not meet its entrance requirements. In general, you should expect to have to restart in Stage One of the destination programme. You should assume that you will need to pass any outstanding examinations in your originating programme. If you are considering applying for transfer out of Computer Science or CS/Maths, you should consult your supervisor(s) and the Chair of your Board of Studies

at the earliest opportunity. You should also contact the admissions tutor of the destination programme. The Board of Studies does not normally refuse to release students who have been accepted for another programme. Written evidence of that acceptance (indicating the date on which it is proposed that the transfer will take effect) is normally required before the Chair of the Board of Studies can sign your transfer form.

Students from other departments are normally only accepted for transfer into single-subject Computer Science programmes if they have met the entrance requirements in full and the programme is not already full. You can normally only transfer to restart Stage One of the Computer Science programmes.

13. Industrial Placement Scheme

13.1. General

The Department of Computer Science at the University of York complies with the Quality Assurance Agency Code of Practice on Placement Learning (QAA CoP PL) and internally validates and externally accredits this using The Skills Framework for the Information Age (SFIA). Details are at:

http://www.qaa.ac.uk/academicinfrastructure/codeOfPractice/section9/PlacementLearning.pdf

and

http://www.sfia.org.uk/

Please see http://www.cs.york.ac.uk/IPAM/ for further information on York SFIA skills definition and SFIA Reference.

Placement students would normally be expected to start at level 2 and achieve level 3 on the SFIA accreditation system by the end of their placement year.

The Department's Industrial Placements Consultant (IPC), also known as the Placements Tutor, administers the scheme. See section 7.3.

13.1.1 Placements

Students admitted to any Computer Science programme with a year in industry undertake a twelve-month salaried industrial placement, between their second and third academic years only, as part of their programme. The point of contact for all industrial placements and sponsorships for the Department is the Industrial Placements Consultant (IPC) (see section 7.3). Industrial Placements are operated in accordance with the Industrial Placements Assessment Module (IPAM) for which the IPC is the point of contact.

The IPC facilitates placement contracts between students and their chosen company. There is no obligation on students to accept a contract with a company of which they do not approve. If it is not possible to arrange a placement contract, or the student does not wish to be considered for a placement, then a transfer out of the programmes with a year in industry into the conventional third year of their Computer Science programme will be made (see section 12.2). Transfer into the programmes with a year in industry from the conventional programmes is easy to arrange during the first year, but is more difficult later (for reasons associated with LEA grants), and application to the University's Special Cases Committee for leave of absence to take a placement may have to be made instead of a transfer to a year in industry programme. Students are urged, therefore, to respond to the IPC's e-mails, as required, if they plan to apply for an industrial placement, even if they only wish to explore the possibility of doing so. The Department strongly advises all UCAS applicants to apply for the programmes with a year in industry, in order to keep their options open.

Before allowing a student to undertake an industrial placement, the University, through the Board of Studies, requires:

1) That the student has the Board's approval

2) That the proposed site of the industrial placement be validated.

Students whose placements are arranged by their sponsoring company or by themselves rather than through the Department must obtain this approval by consulting the IPC.

13.1.2 Responsibilities

The IPC is responsible for:

- Circulation of CVs (curricula vitae) and the arrangement of interviews with fast-track companies
- Conducting briefings and progress reviews
- Visiting all students at least once at the start of a placement
- Acting as a point of contact for all IPAM matters

Students are responsible for:

- Timely provision of CVs to the IPC, in the required format
- Pursuing applications with companies in conjunction with the IPC
- Attending all interviews and briefings which have been arranged with companies (for which the companies will normally pay expenses)
- Securing suitable accommodation for the tenure of the placement
- Arranging adequate personal insurance for the duration of the placement
- Completion and timely submission of an IPAM Log Book for each placement

The IPC reserves the right not to assist placement students who refuse to follow the placement process. These students may be allowed to continue by finding their own placements, but these placements still have to meet the requirements of the Department, QAA CoP PL and IPAM as verified by the IPC.

It is the student's responsibility to ensure that normal programme requirements are met during the application process for placement. Students, in consultation with the IPC, should endeavour to arrange interviews so that they are not prevented from attending compulsory practicals or tutorials. Attendance at an interview is not an adequate reason for missing or seeking an extension for assessed work.

13.2. Industrial Placement Assessment Module (IPAM)

The placement year runs from mid July (latest) to mid July the following calendar year. The Industrial Placement Programme is validated by the Department and externally accredited. Students are required to submit a completed Industrial Placement Assessment Module (IPAM) Log Book by 12:00 on 31 July at the end of their placement in order to get full accreditation, and a Year in Industry Certificate upon graduation, and for the Department to meet the Code of Practice (CoP) laid down by the UK Government through the Quality Assurance Agency for Higher Education (the QAA).

The documentation for this is available at http:/ / www.cs.york.ac.uk/ IPAM/

Student progress towards IPAM submission is reviewed periodically. The First IPAM review date is 31 August of the placement. This will be to review IPAM Plan and Job Description documentation. The Second Review date is 31 January. This will be to review Plan, Job Description, and Log Book Format and Narrative. The Third Review date is 30 April. This is to review the progress towards final submission, with running reviews thereafter until submission at 1200 hours 31 July.

13.2.1 Schedule

When		**What**
Year 1	Sum/ 1	PD1 placement initial briefing
	Sum/ 2	PD1 Careers Service presentation
	Sum/ 3	PD1 placement CV presentation
	Sum/ 3/ Fri	Placement registration deadline
	Sum/ 4	Ex Placement Students Presentation
	Sum/ 4/ Fri	1st version placement CV deadline
	Sum/ 5	Institute of Engineering and Technology presentation
	Sum/ 11/ Mon	Final version placement CV deadline (including exam results subject by subject, with acronyms expanded)

When		**What**
Year 2	Aut/ 0/ Mon to Aut/ 7/ Fri	Fast track placement interviews
	Aut/ 8/ Mon to Sum/ 8/ Fri	Open season placement interviews
	Sum/ 9/ Tue	2nd Placement briefing

When		**What**
Placement Year	mid Jul	Placement starts
	31 Aug	1st Review
	Sep/ Oct	IPC on site Visits
	31 Jan	2nd Review (as at 15 Jan)
	30 Apr	3rd IPAM Review
	31 Jul 12:00hrs	IPAM logbook submission deadline

14. World-Wide Exchange Scheme

University of York undergraduates can spend a year studying at any one of the following universities: the University of Sydney, the University of California, which includes campuses at Berkeley, Los Angeles, San Diego, Santa Barbara, Davis, Irvine, Riverside, and Santa Cruz; the University of Illinois at Urbana-Champaign, which is 120 miles south of Chicago; York University, which is in York, a suburb of Toronto in Canada; Columbia University in Manhattan, New York City; University of Pennsylvania; Rutgers University, New Jersey; the National University of Singapore and the University of Hong Kong. The year abroad replaces the corresponding year of a participant's degree programme at York, and the marks obtained abroad count towards the classification of the York degree.

BSc and BEng students can spend their second year abroad; MEng and MMath students can spend either their second or third year abroad. Though these exchange schemes are open to all University of York undergraduates, the Board of Studies would not normally allow a student to take part in an industrial placement in the year following an exchange because of the difficulty of obtaining the placement. A student on a programme with a year in industry who wishes to study abroad can apply for an exchange and transfer out of the programme if offered a place on the exchange scheme.

Students interested in participating in one of the exchange schemes should first read the information on http:/ / www.cs.york.ac.uk/ NAExchange (and information linked from there), and attend the briefings organized by the International Office. After reading the information students should let their supervisor and the Department's World-Wide Exchange Coordinator (see section 7.3) know that they are interested in applying for a year abroad. Both can help to prepare an application, and the Exchange Coordinator can answer any questions about the schemes.

Applications are normally due in early January of the academic year preceding the exchange. Therefore it is crucial that students begin the application process in November at the latest. The application must include a provisional list of courses to be taken during the year abroad and this must be approved in advance by the Department's World-Wide Exchange Adviser.

Sponsored students should seek the approval of their sponsors before applying.

15. Individual Projects

Projects are an important component of all of the Department's degree and postgraduate diploma schemes. Further details are given in the module descriptions which can be viewed at http:/ / www.cs.york.ac.uk/ courses/ . This section of the Handbook focuses on regulatory issues such as the format, submission and marking of project reports.

15.1. Synopsis

Hours per credit: 10

Degree Programme	Module	Credits	Marks
BSc / BEng	PR3	40	200
MMath Part IV	PR4	40	200
MEng Part IV	PR5	50	250
MSc IT	PPC + PRC‡	60	350
Dip IT	PPC + PRD‡	30	150
MSc NC	PPC +PR8‡	10+80	450
MSc SWE	PPC + PR8‡	10+80	450
MSc Computing	PPC + PR8‡	10+80	450
MSc HCIT	PRH + PR8‡	10+80	450
Dip SCSE/ SWE	PPC + PRB‡	30	150
MRes CB †		30	150
MSc SIIT		60	300
MSc SCSE	PPC + PR9	90	450
MSc GTC	PR6	60	300

‡ The requirement to produce a written report during PPC is at the discretion of the supervisor.
† Consult the MRes Computational Biology coordinator.

Project reports are subject to length restrictions, partly to encourage a concise style of writing. The limits for undergraduate and taught master's projects (except MRes CB) are expressed in terms of both the number of words and the number of pages. This means, for instance, that a report that contains a large number of diagrams will have a smaller word count, but will still have to meet the page limit. The maximum length for all undergraduate and MSc IT and all Diploma project reports is 35,000 words and 70 pages (i.e. neither limit may be exceeded). MRes students should consult the MRes Computational Biology coordinator for details of their project limits. For all other MSc project reports the limit is 50,000 words and 100 pages.

The limits include all material that is to be marked (including the title page, abstract, tables of contents, body of the report, and marked appendices). Bibliographies and unmarked appendices that are included for completeness (such as program listings and tables of data), are not included. The method of counting words and the material to be included in the count must be agreed in advance with your supervisor. For marked-up text (e.g. LaTeX), a Unix wc word-count of the input should be used, as, for example, `detex <report.tex> | wc -w`. The title page of the report must include a declaration of the word count, what is included in that count and how that count was derived.

For example:
Number of words = 34,101, as counted by the MS Word word count command. This includes all the body of the report and Appendix A, but excludes Appendix B.

15.1.1 Choosing a project

This section does not apply to MRes Computational Biology students, who should consult the Department of Biology for information. Students completing a part time MSc should see the appropriate section of the handbook. Students on placements and students on leave of absence might need to visit York to talk to project supervisors before they select, but should e-mail or telephone the academic staff first to arrange a date for the meeting. Projects can be discussed over the telephone.

Allocation of students to projects is overseen by the Project Allocation Coordinator (see section 7.3), using information supplied by supervisors and students to an online database via a Web interface. You can browse the available project proposals and specify a number of projects, in order of preference. For each of the projects they are offering, supervisors can specify a number of students, in order of preference. A program based on the Stable Marriage algorithm computes an optimum allocation automatically. The list of available projects is available online from the issue date (see section 15.1.3).

You must follow this automated procedure unless there are exceptional reasons for not doing so. In such exceptional cases, your current supervisor must be consulted as soon as possible. The Project Allocation Coordinator should only be consulted if the current supervisor cannot be contacted.

Projects for MSc SIIT students may be proposed by lecturers in either the department of Computer Science or Sociology, but otherwise follow the same process as outlined here.

15.1.2 Self-Defined Projects

If you wish to propose your own project, you should follow the procedure given on the projects web page:

http:/ / www.cs.york.ac.uk/ projects/ index.php

All self-defined projects will need to be submitted as a proposal by a member of staff that will need to be vetted in the normal way, so it is important to identify a member of staff who is willing to act as supervisor. Each project proposal should be about 100 - 150 words in length and should include a few references to define the starting point. Be sure to make the following aspects of the proposal clear:

- An indication of the topic and the subject area into which it falls.
- The literature review element and its starting point. If possible, provide references to relevant items in the literature.
- The main technical objectives of the project together with some idea of their relative importance.
- What type of artefact is expected to result from the project; e.g. hardware, software or an extended literature review.

- A description of any special methods or equipment that will need to be used to meet the objectives.

For externally linked projects, it is important that the external organization is made aware that the final project must have significant academic content and that the student is not just a source of free effort that can be used to undertake a routine task. If your project involves an external organisation you will need to get the agreement of that organisation before submitting a proposal. The proposal should give details of a contact person in the organisation; there might also be a need to identify a suitable budget (see section 15.1.4)

15.1.3 Timetable

This section does not apply to MRes Computational Biology students, who should consult the Department of Biology for information.

Project selection takes place in the spring term. The timetable for project selection is published online at:

http:/ / www.cs.york.ac.uk/ projects/ allocation-timetable.php

If you wish to self-define a project, you should start discussing a self-defined project with an eligible member of staff as soon as possible. Once the topic for a project has been agreed, the supervisor will submit the project for vetting and, if this is successful, will enter the vetted proposal into the database marked as "student-defined" and include your name. This process must be completed before the end of Phase 2 below.

There are three phases to project selection:

Phase 1: Monday, week 7 Spring Term to Thursday week 8 Spring: project proposals are made available online. Students start discussing project proposals suitable to their programme with supervisors. Both students and supervisors start entering their preferences into the allocation database. No projects are allocated at this stage.

Phase 2: Friday, week 8 Spring Term to Friday week 9 Spring: the allocation algorithm is activated. If a pair of student and project (supervisor) have ranked each other as their first choice, (1) they are marked as a perfect match (or "marriage") and a firm, never to change, allocation is made, then (2) the project is removed from the list of available projects and the student is removed from all other project choices. This can in turn trigger the creation of new perfect marriages, as the remaining students rise in the supervisors' lists of choices.

The remaining students and projects are paired by the stable marriages algorithm. A non-perfect, stable, marriage can be changed if one of the partners changes their preference. Either side (say, the student) can see which of their potential partners (in this case, supervisors) has selected them as their first choice. Reciprocating that choice and choosing such a partner as one's first choice will instantly create a perfect match and, hence, a firm, never to change, allocation.

At the end of this phase, the database closes and all non-random allocations are made permanent.

Phase 3: Tuesday week 10 Spring Term--onwards. The database is re-opened again with the remaining few students. The current supervisors of these students are e-mailed and requested to advise the students and/ or make a final choice on their behalf. The process ends when all allocations are made.

15.1.4 Budgets and special equipment for project work

Most projects require nothing in the way of special equipment or facilities. An example might be a purely software project - perhaps involving the writing of a compiler - that can be done on almost any hardware or software platform. Some projects require special hardware or software; perhaps a certain type of workstation, a particular interface or a compiler for an unusual language. The Department has a wide range of hardware and software available, and it will normally not be necessary to purchase items specifically for project work.

If a project does require items - hardware or software - which the Department does not possess, it will be necessary to buy them, or to make them. This must be agreed between you and your supervisor. In consultation with your supervisor, you should prepare a budget listing the equipment required and its likely cost. A small amount of money is set aside each year for this purpose. The budget statement should be submitted to the Laboratory & Facilities Manager (section 7.3) for approval.

Special-purpose hardware can be built by the Department's technicians in the Department's hardware workshops. This takes time: careful planning is necessary if you wish to have equipment built in time for it to be of use during your project. Supervisors will be able to provide advice.

15.1.5 Conducting project work

Projects are (deliberately) immensely varied. Most are open-ended; that is to say, they offer the opportunity for much more work than can possibly be completed within the allocated time-span. It is easy to squander time on a project, and time is the most precious resource a student has. It is therefore vital to plan work with great care, and to monitor progress continually. It is also vital to do this in consultation with supervisors, who have valuable experience in these matters.

Undergraduates and full-time MSc students are normally expected to meet their supervisors for project supervision each week during term-time throughout the project period. The normal expectation is an average meeting time of half an hour per week. Where "Vac" appears in a programme table, weekly project supervisions continue throughout the summer vacation. Where the supervisor is away (for annual leave, attendance at academic conferences, and so on) suitable arrangements will be made for pastoral care.

Undergraduates must see their project supervisor before the end of the summer term prior to the project period to discuss their project and to plan what preliminary activities, if any, can be accomplished during the summer vacation.

Undergraduates taking PR3 should attend the taught part of CSW, at the start of the autumn term, and third year MEng/ Maths students taking PR5/ PR4 should attend the whole of CSW.

Attendance at scheduled project meetings is mandatory; if necessary, you should feel free to request additional meetings if further assistance is required. If you are dissatisfied with the frequency or duration of project meetings, you should raise the matter with your supervisor in the first instance and, if the problem is not resolved, should inform the Chair of the Board of Studies.

You should make sure you agree, with your supervisor, the milestones to be met as the work on the project advances. Time management is essential for the success of a project of such duration, and is likely to be the aspect of the project where predictions would be the least accurate. Here are some useful guidelines to follow.

Although not required, some students opt for doing preliminary research in the field of their project before the actual start of the project. Should you wish to do so, you may meet the supervisor to discuss recommended reading. If the project starts at the beginning of the autumn term, you should meet your supervisor as soon as possible - this is the period when a lot of time can be invested in the project. It is generally a good idea to attempt to produce a 10 - 12 page draft of one of the chapters and hand it in to the supervisor for comments halfway through the project. If you are a slow writer, this will give you the chance to realise it, and adjust the schedule to allow for more writing-up time. In any case, you should take extensive notes on the literature you read, as it is likely your memory will need refreshing by the time you start work on the final version of the paper. You should keep the last 4-5 weeks almost exclusively for writing up.

15.1.6 Project web pages

For guidance on how to do a project, see:

http://www-course.cs.york.ac.uk/csw/

All online information relating to undergraduate and full time MSc projects is accessible from the projects web page:

http://www.cs.york.ac.uk/projects/

Undergraduate and full time MSc students should visit this web page and read the "Information for Students" very carefully.

The corresponding information for part time MSc students is at:

http://www-course.cs.york.ac.uk/pr9/

15.2. Project Submission

Two paper copies of the project report and any documentation are to be handed in to Departmental Reception by the published deadline. The Department will arrange for both copies of the project to be bound.

In addition to the paper versions, an electronic version of the project report and documentation should be submitted in PDF format via the electronic project submission web page (https://www.cs.york.ac.uk/submit/)This can be done up to 24 hours after the published paper submission deadline. In the event of failure of the electronic submission, all

faults should be reported to support@cs.york.ac.uk. The Department cannot accept responsibility for any external systems failing which result in electronic submissions not being submitted by the published deadline. The examiners will mark the paper copies, not the electronic copy.

After the Board of Examiners has met to agree the marks, one paper copy of the project report and documentation will be retained in the Departmental Library and an electronic version of those project reports that have achieved at least a pass mark will be made available in the Digital Library. The other paper copy will be made available for collection by you at Reception, provided an electronic version has been submitted.

Part of the project assessment is an assessed presentation. You should check with your supervisor to find out the exact dates of these presentations, but they are usually a few days after the report hand-in deadline. See section 15.2.3 for more information.

15.2.1 Extensions

Extensions may be granted for projects, according to the same rules as for all open assessments. See section 16.3.5.

15.2.2 Format regulations for the report

This section contains the formal regulations that govern the presentation of the project report. You will be penalized under the marking scheme if you do not follow them. Extensive, less formal, advice is available online at:

http://www-course.cs.york.ac.uk/csw/

In addition, you should read the following carefully before you start writing your report.

1) All source material that is used, whether by direct quotation or not, must be acknowledged (see section 10.3). As for all assessments, when citing published work, students should use the IEEE referencing style. (See section 16.3.7)
2) Reports should always be printed unless there is a compelling reason to do otherwise. If necessary, some formulae or figures may be handwritten or hand-drawn, but these should then be scanned so the electronic version of the report is complete. Use black ink unless colour is essential.
3) Reports should be submitted on good quality A4 paper, so that double-sided printing can be used without one side showing through to the other. Though double-sided printing is preferred, single-sided printing will be accepted.
4) Inside and top margins should be a minimum of 2 cm; other margins should be a minimum of 1 cm. You might find it simplest to leave 2 cm all round. Large blocks of closely spaced text can be hard to read, so if you use single-spaced lines, leave a good gap between paragraphs and around headings.
5) Requirements 1 - 4 above also apply to any program sources or similar materials included as appendices. Double-column landscape can be a useful format for such sources, but only if print quality is high enough to avoid problems of readability. Do not include unnecessarily long source listings: ask your supervisor if in doubt.
6) Students should adhere to the word and page limits given in section 15.1. Staff marking your project dissertation may simply stop reading when the relevant limit

is reached. Quality is much more important than quantity; you should not aim to come close to the upper limit simply to make your report appear substantial.

7) Sheets must not be fixed together in any way. Each copy of the report must be submitted in a wallet-style folder. Mark each folder clearly with your name and "copy 1" or "copy 2".
8) The report must start with a title sheet, containing title, author, date and wording to the effect that it is the report on a project submitted for the degree of such-and-such in the Department of Computer Science at the University of York. It should also contain a declaration of the word count, as described in section 15.1.The second sheet should normally contain an abstract of not more than 200 words.
9) Subsequent sheets should show the contents of the report; this should include a table of contents showing the title and page number for each chapter and section (or each section and subsection). Where appropriate, appendices may start with their own table of contents. Each main subdivision (e.g. section, chapter or appendix) should start on a new page.
10) All tables, figures and equations should be labelled or numbered. Where appropriate, separate lists of tables, figures and equations should be included at the start of the report. Conventions for labelling or numbering tables and figures should be applied consistently.
11) Numbering of subsections to one level of decimals (e.g. 2.1) is desirable; numbering to two levels (e.g. 2.1.2) is acceptable. Numbering to further levels (e.g. 2.1.2.3) is not normally desirable. Conventions for headings and indentation at various levels should be applied consistently.

15.2.3 Project presentation regulations

Your project presentation will take place shortly after the project report submission. During the project presentation, you should be prepared to talk about the topic, literature review, methodology, evaluation and conclusions of your work on the project.

You should enter the examination room only when invited by the technical assistant. Computer access to student accounts will be provided during the presentation. You can also give a demonstration of any software developed for the project, during the time allocated to your presentation.

Presentations are organised in sessions with break times in between. Each presentation is allocated 10 minutes with an additional 5 minutes for questions and 5 minutes for preparing the changeover and preparation of the presentation material. The markers will interrupt your presentation if it goes beyond 10 minutes.

There are two markers and the resulting mark will consist of the average of the two marks. The presentation mark is worth 5% of the final project mark. The penalty for no-shows (subject to EC's and rescheduling) is a mark of 0 for the project presentation. Other staff members are allowed to attend the student project presentations, without any rights to intervene in the marking process, but students are not allowed to attend the presentations of their colleagues.

The following guidelines are useful for organising the project presentation:

- The project presentation should clearly show the markers that the work presented is your own.
- The first slide should contain the project title and your name.
- Prepare a total of 5-10 slides in which you should provide as much information as possible about your project, to be delivered during 10 minutes.
- The slides should not be very loaded with words.
- Be prepared to add verbally all the information that you have not included in your presentation slides but which you still deem necessary to report.
- Allocate a slide for an outline of your presentation and your project aims.
- During 2-3 slides when presenting the literature review you should use references whenever needed (you can simply reference as "[Author, Year]").
- Explain the adopted methodology, preferable using block diagrams, charts, pseudocode or algorithmic description using bullet points, depending on your type of project.
- You should provide your results on at least 2-3 pages using tables or graphical means whenever possible.
- You should end your presentation with a set of conclusions drawn from your work and thoughts about possible future development of your work.

For further details regarding project presentations please refer to:-

http:/ / www.cs.york.ac.uk/ projects/ ProjectPresentations.html

15.2.4 Classified material and Intellectual Property

In certain circumstances, particularly with projects undertaken with industrial collaboration, some material relevant to the project might be considered classified or "commercial - in - confidence". It is up to the student to arrange to have the report cleared by the appropriate authorities, though assistance in seeking permission can be obtained from the student's supervisor. It must be possible for both markers, and the external examiners, to see the whole report. If appropriate, confidential material, which is supplemental to the main project report, may be placed in a separately bound appendix. Only the main report would then be lodged in the Departmental library. Alternatively, it may be possible to delay the lodging of the report in the library, for a period not exceeding one year, to allow the student, or a sponsoring company, to apply for protection of material (via a patent or whatever).

The issue of the intellectual property rights (IPR) of material developed as part of a project is complex. Depending on how much involvement a supervisor has had, the IPR may be shared between the student, the supervisor, and possibly a sponsoring company. In situations where this is important, an agreement should be reached as soon as possible.

16. Notes on Assessment

16.1. Introduction

The Board of Examiners in Computer Science is responsible for all matters concerned with the setting and conduct of assessments. It consists of all the staff members of the Board of Studies together with the External Examiners in Computer Science and any member of the academic staff of the University involved in an assessment in Computer Science. The Board works according to regulations, policies and procedures set by the University.

More detailed information about the Department's Assessment Policies and Procedures can be found at: http:/ / www.cs.york.ac.uk/ student/ statementonassessment.html

16.1.1 Kinds of assessment

There are two different kinds of assessments:

- Closed assessments take place under examination conditions, invigilated on a specified day and for a specified period (e.g. two hours). (See section 16.5.)
- Open assessments are issued on a specified day, carried out uninvigilated over a period of several days or even weeks, to be submitted by a specified deadline (see sections 16.3 and 16.4).

Most modules include practicals or other exercises for general education purposes. Any assessment of this work is only to give you feedback, to inform you of your progress, and not for marks towards your degree classification. Such work is not our concern in this section.

16.1.2 Registration for assessments

You sit only those closed examinations that apply to modules you have taken, and carry out only those open assessments appropriate for your scheme of study. You are registered automatically for your examinations by the Department. However, if you choose option modules from a menu of modules, you have a duty to ensure that the Department knows which modules you are doing, so that your examination registrations can be made. Check your registration (see section 11.3) at the start of each academic year and inform the Department of any errors. (https:/ / evision.york.ac.uk/)

16.1.3 Timing of assessments

The dates of closed examinations and the dates of issue and of submission of open assessments can be found in the programme charts for each degree programme. Detailed timetables for closed examinations are posted on the web at http:/ / www.york.ac.uk/ admin/ eto/ exams/ examtt.htm and on Departmental notice boards. Closed examinations can be scheduled as early as Monday week 1 of either spring or summer terms, and they may be held on a Saturday.

Where possible, the issue and submission dates for open assessments are staggered throughout the three terms of the academic year. The dates for open assessments are set well in advance and cannot be varied without explicit approval by the Board of Studies. If such alterations are made the revised dates are published by the department.

Some overlap of assessments is almost inevitable. Computer Science / Mathematics students may have assessments set at different times of the year.

16.1.4 The role of assessment setters

If you are having difficulties with a particular assessment, consult the member of staff who set that piece of work. The setter of an assessment is always identified on the cover sheet. The setters are best able to judge how much help to give. Where setters decide that giving some extra information is appropriate, they disseminate that information to the whole group, e.g. by posting an article to the appropriate Web forum (see http://www.cs.york.ac.uk/forum/).

16.1.5 The role of supervisors in assessments

Supervisors are able to offer general advice and guidance about modules, but cannot give direct help or even hints about particular assessments. Different supervisors are, either by expertise or by inclination, able to offer differing degrees of help and this would be unfair.

16.1.6 Missing an assessment

Attendance at University examinations is compulsory. If you fail to present yourself for an examination at the time and place published, and are not prevented from doing so by illness or other good cause, you will be deemed to have failed that examination. Misreading of the examination timetable is not regarded as "good cause".

Similarly, with open assessments, if you do not submit any work for a particular open assessment you will be awarded a mark of zero.

Repeated non-attendance or non-submission may be grounds for disciplinary action.

If you become ill, or encounter other difficulties that you think the Board of Studies should take into account when considering your examination performance, you should fill in and submit a Mitigating Circumstances form (see section 16.2).

16.1.7 Feedback

The Department aims to publish provisional marks for each assessment within four term-weeks of the date of examination or submission. You can access your own marks at:

https://www.cs.york.ac.uk/exams/provisionalmarks/

For open assessments, the same page provides links to brief written feedback on your work. For closed exams, you will have supervised access to your marked scripts. The dates and times of access sessions are announced well in advance.

The Department will send you a statement once a year, normally during summer vacation, detailing your marks in that year's formal assessments.

Written feedback and script–access sessions should normally be enough for you to understand why you obtained the mark you did. However, if you wish to query a mark you are awarded for assessment, for some good reason, you may write to the Chair of the Board of Examiners, querying the mark and giving your reasons for doing so. "I thought I had done better" is not an acceptable reason. Nor can you appeal simply against the academic

judgement of examiners, "I thought my description deserved 9/ 10, but the examiner awarded 6/ 10".

16.1.8 The Data Protection Act and examinations

You may obtain all personal data produced and processed for the purpose of examinations and assessment by making what is legally called a data subject request. The only exceptions to this are examination scripts, which are expressly exempted.

Internal and external examiners' comments are both covered by the Act, and may be requested within a stipulated timescale, normally 40 days.

Minutes of Examination Boards and the Mitigating Circumstances Committee are also covered by the Act, unless the data cannot be disclosed without additionally disclosing personal data about a third party. As personal data, examination results are not disclosed to third parties without your consent. The department provides pass lists with degree classification only for finalists who have given consent by signing a form issued by the Undergraduate Office. Pass lists for all non-finalists are displayed without degree classification.

If you wish to make a data subject request, you should first approach the University's Record Manager . For further information please see:-

http:/ / www.york.ac.uk/ recordsmanagement/ dpa/ studentdata/ index.htm

You will need to provide proof of identity and pay a small fee.

See section 4.7 for more details on the Data Protection Act.

16.2. Mitigating Circumstances Forms

Mitigating Circumstances Forms are available at the Departmental Reception desk. You can ask the Board of Examiners to take account of medical or compassionate circumstances that have affected any of your assessments by completing the relevant parts of a form and providing relevant supporting evidence. If you need to submit a form, do not delay; complete and submit one as soon as possible. For the examiners to be able to take your circumstances into account, your form must be received and considered by a small committee which normally meets well before the examiners meetings. Forms without supporting evidence will not be considered.

The supporting evidence should be a statement from a person competent to assess the case professionally. For example, a doctor's note for illness or other medical problems; a police crime number for victims of crime; a letter from parents if there have been family problems; a letter from a counsellor if there have been personal problems. Any medical certificate should give dates between which the doctor considers you were unfit for work. Note: self-certifications (see section 2.7.2) cannot be used in these circumstances.

For further guidance about Mitigating Circumstances see Appendix A.

16.3. Open Assessments

16.3.1 Dates of issue and submission

The dates of issue and submission of all open assessments are given in the programme charts in this handbook. Submission dates are set by the Board of Studies and are staggered throughout the academic year (see section 16.1.2).

16.3.2 Issue of open assessments

For full-time students, open assessments are not handed out during lectures. On the day of their issue, collect and sign for your copy of the assessment at the Departmental Office.

16.3.3 Submission of open assessments

All work for open assessments by full-time students should be submitted to the Departmental Reception desk (part-time students should see section 28.2.4). Submit your own work and sign the standard submission sheet to record the date and time of your submission. If you fail to do this you cannot expect to receive credit for your submitted work. Reception does not normally accept work submitted more than 24 hours before the stipulated deadline.

16.3.4 Penalties for late submission

All work submitted late, without an approved extension or recognised mitigating circumstances, has marks deducted. The standard university rule is that 10% of the available marks are deducted for each day, (or part of each day) that the work is late, up to a total of five days, including weekends and bank holidays. After five days, the work is marked at zero.

16.3.5 Extensions for open assessments

If you are likely to submit late, consult your supervisor at the earliest possible opportunity. When medical or other problems occur, you can ask for extra time to complete the assessment.

Extensions for open assessments may be granted if:

1. you have been unable to work on the assessment for at least a full working day during the assessment period, because of compelling and unforeseen circumstances beyond your control, and

2. you can present documentary evidence to confirm when and why you were unable to work

Part–time students may cite exceptional circumstances arising from their employment, but for full-time students constraints arising from employment are not acceptable grounds for an extension.

It is not the Department's practice to give extensions due to problems with your own personal computer. Similarly, an extension will not be given if the department's computers are at fault, but a reasonable amount of time is available before or after the problem.

Extension Periods

Extensions are always for some whole number of working days, not counting week-ends or bank holidays.

If the above conditions are satisfied, you may be allowed an extra day for every full day of the standard assessment period for which you were unable to work. A shorter extension, or no extension, may be granted:

1. if only a short period was lost at an early stage in a lengthy assessment, or
2 to avoid conflicts with other requirements of your programme of study, or
3. if necessary to allow examiners sufficient time for marking.

In any case the maximum extension period is normally two weeks.

Beyond the standard assessment period, departmental facilities provided for an assessment may no longer be available. Also, the assessment setter, or the supervisor in the case of an individual project, may not be available to discuss queries or requests for advice; however, they or an agreed deputy should at least be contactable by e-mail or telephone.

How to Request an Extension

Complete and electronically submit the standard form on the CS web pages at http://www.cs.york.ac.uk/student/extension/. You will need to state:-

(a) the number of full working days for which you request an extension
(b) when and why those working days were lost
(c) what documentary evidence you will provide. (It is your responsibility to arrange for this evidence to be sent to the departmental office.)

You may complete such a form at any time during the assessment period, up to the normal submission deadline. If you do not have internet access when you need to request an extension, ask a member of staff to enter a request for you.

Confirmation of your request is automatically mailed to you when you submit a form. Attached to the mail will be a Mitigating Circumstances form in pdf. Print this form and submit it along with the evidence to support your request as soon as this evidence becomes available. Details are also sent to appropriate staff.

If a request is approved, your submission deadline is postponed by the appropriate number of days. If it is rejected, or if documentary evidence is not received, any submission after the original deadline is treated as a late submission in the usual way.

If a request is neither approved nor rejected by the normal submission deadline, you should submit as promptly as you can. You may yet obtain approval for an extension. But if you end up submitting after the normal deadline without an approved extension, you have the option of completing a Mitigating Circumstances form.

16.3.6 Format of submission

Submissions must carry your examination number. Your name and/ or username must not be present anywhere in your submission. The only exceptions to this rule are:

- Log books for industrial placements
- Reports for the projects listed in section 15.1

You must submit a cover page with at least your personal examination number, the title of the assessment and the module code (e.g. 0620133). If you submit more than one document there should be a cover page for each one.

Ensure that your written work is legible and neatly laid out. It is difficult to give a good mark to work that is hard to read. Proof-read and spell-check your work before you hand it in. It is surprising how many sentences are written that do not make sense, or contain spelling mistakes.

Ensure that all pages can be read without the examiner having to remove staples, dismantle bindings etc.

16.3.7 Citations and References

All assessments submitted should use the IEEE style of referencing, unless otherwise stated. This applies to both projects and open assessments. The following description of the style is based on the IEEE's Author Guide, 2007.

A numbered list of references must be provided at the end of the submission or report. The list should be arranged in the order of citation in text, not in alphabetical order. List only one reference per reference number.

In text, each reference number should be enclosed by square brackets. Citations of references may be given simply as “in [1] ...”, rather than as “in reference [1] ...”. Similarly, it is not necessary to mention the authors of a reference unless the mention is relevant to the text.

Further details can be found at

http:/ / www.ieee.org/ publications_standards/ publications/ authors/ authors_journals.html

16.4. Assessment of Individual Projects

Each project report is marked by two members of staff: the supervisor and a second marker. Discrepancies in their marks are investigated and resolved if necessary, by consulting additional examiners. The care taken with project assessment reflects the high weighting given to project marks.

All project assessments also include an assessed presentation, but far greater weight is given to the written report.

Examiners use a standard marking form when assessing a project. This form should be consulted in order to obtain an idea of which aspects project examiners consider important. Details of marking sheets and of requirements for presentations can be found at:

http://www.cs.york.ac.uk/projects/

16.5. Closed Examinations

16.5.1 Examination advice

- Arrive in good time. If you are late, you may be permitted to join the exam up to 30 minutes after it has started, but you cannot expect extra time at the end.
- Visit the toilet before the exam starts. If you do need to visit the toilet during the exam, raise your hand to summon an invigilator. Except in emergency, you cannot leave the exam room within the first 45 minutes or the last 15 minutes.
- Have with you your ***University Card*** to confirm your identity. Display it on the corner of your desk throughout the exam. If you fail to present your card, details will be recorded by Exams-Office staff. You will have to present ***two*** forms of identification, one of them your University Card, to Exams Office within one working day of the examination, or else get a mark of zero for the exam .
- Do not have with you any books, or other reference materials of any kind.
  The only permitted items are a small clear bottle of still water and a clear pencil case or bag, which may contain pens, pencils, pencil sharpener, rubber and ruler. If the use of a calculator is permitted, standard University calculators are provided in the exam room. Details of the University-provided calculators may be found at
  http://www.york.ac.uk/admin/eto/exams/StudentInfo/notesstudents.htm
- Do not communicate with anyone during an exam other than a member of staff who is invigilating. Any such communication may be regarded as academic misconduct and could result in a serious penalty.
- Clear instructions are announced at the start and end of each exam.
- The rubrics for closed assessments vary and it is important to read the rubric carefully before you start answering a paper.
  If you attempt more than the specified number of questions, only the marks for your best questions will be counted.

16.5.2 Past examination papers

The University (J.B. Morrell) Library holds a paper archive of all closed examination papers ever set by the Department. In addition, copies of past papers are available online on the Department's web pages. Model answers, or notes on the answers expected, are also provided.

Past resit papers are not usually available online, and are not lodged in the University Library.

When a module is taught for the first time, or is radically changed, or has an examination format that differs significantly from that of previous years, the lecturer concerned should provide a specimen paper.

16.6. Returning Work to Students

It is a University rule that examination material must be retained for at least one year following its consideration by the full Board of Examiners.

Closed papers and Open assessments are not returned to you. However, one copy of your project report will be returned to you after the final examiners' meeting of the academic year. For undergraduates, project reports are usually made available late on the last day of term, or on Degree Day.

If you wish to make copies of submitted work to keep for your own reference or to show to prospective employers, you must do so before handing in the work. In the absence of explicit provision to the contrary, the University is considered to own all material submitted for examination for any undergraduate and higher degrees, including software.

16.7. Undergraduate Programmes

16.7.1 First Year Examinations (pre-2010/11 entry only)

The following paragraph applied to students starting in 2009/ 10 or earlier, and is included for completeness. Students starting in 2010/ 11 should instead refer to the separate handbook issued to them, as the following regulations will no longer apply.

At the end of the first year, we sum the marks for Parts Ia and Ib examinations to arrive at a set of marks for Part I. We take account of any Mitigating Circumstances and make recommendations to the Senate. The Part I examination in Computer Science is a qualifying examination in which papers on related topics from both Part Ia and Ib are grouped into clumps. You must pass all clumps at 40 or above in order to continue with the programme.

16.7.2 Second Year Examinations

At the end of the second year, we sum the marks for Parts IIa and IIb examinations to arrive at a set of marks for Part II. We take account of any Mitigating Circumstances and make recommendations to the Senate. The Part II examination in Computer Science is a qualifying examination in which papers on related topics from both Part IIa and IIb are grouped into clumps. You must pass all clumps at 40 or above in order to continue with the programme.

If you are an MEng or MMath student and you do not achieve the required standard after the Part II examinations, you may be required to transfer to the relevant three-year degree at this stage (see 19.2.1 and 18.1.1).

16.7.3 Third Year Examinations

Note for students who started in 2009/10: If you are going on a sandwich placement in 2011/ 12, you will return to "Stage 3" of the new degree structure. The new assessment rules, rather than those outlined below, will apply to Stage 3 modules and results. Please see Appendix B for details.

At the end of the third year, we sum the marks for the examinations in each Part, including the project if applicable. Marks from Parts I, II and III, denoted by m1, m2 and m3 are normally combined in proportion 1:3:5. Considering T1, T2 and T3 as the maximum total

marks of Parts I, II and III, the final mark M is computed as follows and expressed as a percentage

M = 100 (m1 + 3m2 + 5m3) / (T1 + 3T2 + 5T3)

For BSc/ BEng students in Computer Science, we consider the value of M, mitigating circumstances and any other exceptional factors and recommend a classification to the Senate. The Senate then ratifies a classified degree list.

If you are an MEng or MMath student you are required to achieve at least 50% at this stage in order to remain on the programme. Refer to section 19.2 or 18.1 respectively.

If you are a CS/ Maths student then the overall mark M in Computer Science is combined with an overall mark in Mathematics to inform similar decisions and recommendations.

Resits are only permitted at Part III in exceptional circumstances.

16.7.4 Fourth Year Examinations

Note for students who started in 2009/10: All students on MEng/ MMath degrees who arrived in October 2009 will take their final year ("Stage 4") under the new degree structure. The new assessment rules, rather than those outlined below, will apply to Stage 4 modules and results. Please see Appendix B for details.

At the end of the fourth year, we combine the marks for the examinations in each Part, including the project. Marks from Parts I, II, III and IV are normally combined in proportion 1:3:5:7. Your overall percentage mark M is calculated as:

M = 100 (m1 + 3m2 + 5m3 +7m4) / (T1 + 3T2 + 5T3 + 7T4)

We consider the value of M, cumulated mitigating circumstances and any other exceptional factors and recommend a classification to the Senate.

There are normally no resits for Part IV MEng or MMath examinations.

16.8. Failure to Complete Assessments

If for some compelling reason you cannot take an exam or complete an assessment then we have discretion to waive it. You are given an overall mark based on the work submitted and on other exams and assessments. The total weighted contribution for the year is calculated to a reduced maximum.

However, we cannot waive more than a small part of the entire assessment for a programme, and there must be clearly documented medical or compassionate reasons in each case.

16.9. Undergraduate Degree Classification

The Department works to the University mark scale, which is as follows:

First Class Honours	70-10
Upper Second Class Honours	60-69
Lower Second Class Honours	50-59

Third Class Honours	40-49
Pass	35-39
Fail	0-34

Degree classification is not always the outcome of mechanical application of classification guidelines, since the Board of Studies takes into account various factors in arriving at the overall result. These include any mitigating circumstances recorded during your programme of study. See section 16.2.

If your final overall mark is 80 or more you will be considered for recommendation to the University for a first class degree with Distinction.

16.10. Resit Examinations

Progress through the programme requires that you pass all Year 1 and Year 2 clumps at honours level (>40). If you fail one or more clumps of papers in the Department's Part I or Part II examinations you may, at the discretion of the Board of Examiners and the Board of Studies, and on payment of a fee, be permitted to resit the failed papers in those clumps prior to the start of the second/ third year. Resits are not normally permitted in Part III or Part IV.

Resit papers normally differ from those taken the first time.

For failed open assessments you are normally required to resubmit by the middle of August. For failed closed assessments there is a timetable of resit examinations held at the university. If you pass resits, the overall mark you carry forward into later years is the greater of 40% and the overall mark based on your first attempts at all papers. If you fail resits you must normally leave the University.

Please note:

1) You are responsible for finding out which resits you have to do.
2) You are responsible for finding out when both open and closed resits will be held. Closed resit examinations are normally held in August; please see http:/ / www.york.ac.uk/ admin/ eto/ exams/ StudentInfo/ resits.htm for details.
3) If there are any mitigating circumstances which affect your performance in resit examinations, report them to the department in the normal way (See mitigating circumstances forms section 16.2)
4) You cannot take closed resit examinations abroad. So do not make unchangeable plans (e.g. non-transferable flight bookings) for the summer vacation without considering whether you will need to be in York for resits in August.
5) Resits of open laboratory-based papers normally require you to be resident in York during some or all of the period of the examination.
6) Non laboratory-based open resit papers are sent to you by post; it is your responsibility to inform the Department if they do not arrive by the scheduled date.
7) It is vital to provide up-to-date addresses for vacation (and other) periods. You can do this at https:/ / evision.york.ac.uk/ .

If you are a second year student going on industrial placement, but you have to take resits, you are expected to take them in the summer immediately following your Part II

examinations. Exceptionally, if this timing of resits would cause severe difficulty, you may write to the Chair of the Board of Studies seeking permission to defer the resits for one year.

16.11. Poor Overall Performance in Examinations

The Board of Examiners is guided by the weighting system used for each part of your degree. Each module counts in proportion to its importance in the programme scheme and the amount of work it involves. The Board of Examiners takes account of a notably good or bad performance in broad areas of the programme (such as programming, or electronics). The examiners may withhold the award of a degree, or award an ordinary degree instead of an honours degree, or award a lower class of honours degree, or restrict the right to choose between a BEng and BSc degree, or restrict the right to advance from one year to the next if you:

- Fail all or almost all closed papers; or
- Fail all or almost all open papers; or
- Fail to submit a satisfactory final year project; or
- Repeatedly fail to submit open assessments or submit them late.

Specific Information Related to Taught Programmes

- This section of the handbook contains specific information material on a particular degree scheme.

- For general information relating to taught programmes, see the previous section of this handbook.

- For information that is of general relevance to all students on taught programmes, see the first section of this handbook.

17. Degree Programmes in Computer Science

17.1. Undergraduate Degree Programmes

The undergraduate degree programmes taught by the Department are given in Table 1 on page 83

Students registered for the 3-year single-subject Computer Science or Computer Science with Embedded Systems programmes will normally be asked during their final year to choose whether they want to receive a BEng or BSc degree. There is no difference in the programme content. The advantage of choosing BEng is that it shows that the programme from which you have graduated has been partially accredited by a professional engineering institution.

Our three-year *Mathematics/Computer Science* programme is not accredited by any professional engineering institution, and so its designation is always BSc.

The Department uses a scheme of course codes to identify students in particular years of particular variants of its first degree programmes:

First digit: Year of programme	Letter: Subject combination	Third digit: Amount of other subjects
1 = 1st year 2 = 2nd year 3 = 3rd year 4 = 4th year (MEng and MMath)	X = Computer Science (BEng/ BSc CS) Y = Computer Systems with Software Engineering (MEng CSSE) M = Computer Science and Mathematics (BSc CS/ M) N = Mathematics and Computer Science (MMath CS/ M) A = Computer Science with Artificial Intelligence (MEng CSAI) S = Computer Science with Business Enterprise Systems (MEng CSBES) E = Computer Science with Embedded Systems Engineering (BEng/ BSc CSESE) F = Computer Science with Embedded Systems Engineering (MEng CSESE)	0 = Single Subject degrees 2 = Equal Computer Science and Maths

The letter S is appended to indicate that the student is registered for the year in industry (or Sandwich) variant of the degree programme. The letter R is appended to denote a student who has returned from an industrial placement.

Key to Undergraduate Awards:

BEng	Bachelor of Engineering
BSc	Bachelor of Science
MEng	Master of Engineering
MMath	Master of Mathematics

17.1.1 List of all the Department's undergraduate degree programmes

SITS Route	UCAS	Degree Title	1st year	2nd year	3rd year	4th year	5th year
Single Subject Programmes:							
UBCOMSCOM3	G400	BEng / BSc Computer Science (CS)	1X0	2X0	3X0	-	-
UBCOMSIND4	G401	BEng / BSc Computer Science (with a year in industry) (CS)	1X0S	2X0S	3X0S	3X0R	-
UMCSESCSE4	G460	MEng Computer Systems and Software Engineering (CSSE)	1Y0	2Y0	3Y0	4Y0	-
UBCSESIND4*	-	BSc Computer Systems and Software Engineering (with a year in industry) (CSSE)	-	-	3Y0S	3Y0R	-
UBCSESCSE4*	-	BSc Computer Systems and Software Engineering (CSSE)	-	-	3Y0	4Y0	-
UMCSESIND5	G461	MEng Computer Systems and Software Engineering (with a year in industry) (CSSE)	1Y0S	2Y0S	3Y0S	3Y0R	4Y0R
UBCOMSEMB3	G410	BEng/ BSc Computer Science with Embedded Systems (CSESE)	1E0	2E0	3E0		-
UBEMBSIND4	G411	BEng/ BSc Computer Science with Embedded Systems (with a year in industry) (CSESE)	1E0S	2E0S	3E0S	3E0R	-
UMCOMSEMB4	G412	MEng Computer Science with Embedded Systems (CSESE)	1F0	2F0	3F0	4F0	-
UMEMBSIND5	G413	MEng Computer Science with Embedded Systems (with a year in industry) (CSESE)	1F0S	2F0S	3F0S	3F0R	4F0R
UMCOMSAIN4	G4G7	MEng Computer Science with Artificial Intelligence (CSAI)	1A0	2A0	3A0	4A0	-
UMCOMSAII5	G4GR	MEng Computer Science with Artificial Intelligence (with a year in industry) (CSAI)	1A0S	2A0S	3A0S	3A0R	4A0R
UMCOMSENS4	G492	MEng Computer Science with Business Enterprise Systems (CSBES)	1S0	2S0	3S0	4S0	-
UMCOMSIND5	G493	MEng Computer Science with Business Enterprise Systems (with a year in industry) (CSBES)	1S0S	2S0S	3S0S	3S0R	4S0R
Joint Honours Programmes:							
UBCOMAMAT3	GG41	BSc Computer Science and Mathematics (CS/ M)	1M2	2M2	3M2	-	-
UBCOMAMAT4	GGK1	BSc Computer Science and Mathematics (with a year in industry) (CS/ M)	1M2S	2M2S	3M2S	3M2R	-
UMMATACOM4	GG14	MMath Mathematics and Computer Science (CS/ M)	1N2	2N2	3N2	4N2	-
UMMATACOM5	GG1K	MMath Mathematics and Computer Science (with a year in industry) (CS/ M)	1N2S	2N2S	3N2S	3N2R	4N2R

Table 1 Undergraduate Degree Programmes.

* BSc Computer Systems and Software Engineering is an alternative exit route available for students who, in the third or fourth year of the MEng (CSSE) programme, are unable to complete the fourth year to achieve the MEng. Similar BSc routes exist for the MEng programmes: CS with Artificial Intelligence and CS with Business Enterprise Systems.

17.2. Postgraduate Taught Programmes

There are ten postgraduate taught programmes available: these may be referred to in this handbook by codes as in the table below:

Short title	SITS Route Code	Programme Title	Full or Part time	Departmental Code
MRes CB	PMCOMSBIO1	MRes Computational Biology	FT	CB
MSc Comp	PMCMPSCMP1	MSc Computing	FT	COMP
MSc HCIT	PMHCISHCI1	MSc Human-Centred Interactive Technologies	FT	HCIT
MSc IT	PMINFSTEC1	MSc Information Technology	FT	IT
MSc NC	PMCOMSNCP1	MSc Natural Computation	FT	NC
MSc SIIT	PMSOCSTEC1	MSc Social Informatics and Interactive Technologies	FT	SIIT
MSc SWE	PMSOFSENG1	MSc Software Engineering	FT	SWE
MSc GTC	PMCOMSGTC1	MSc Gas Turbine Control	PT	GTC
MSc SCSE	PMSAFSCRI1	MSc Safety-Critical Systems Engineering	PT	SCSE
PGCert SSE	PCSYSSSAF1	Postgraduate Certificate System Safety Engineering	PT	SSE

Key to Postgraduate awards

MSc	Master of Science
MRes	Master of Research
Dip or PGDip	Postgraduate Diploma
Cert or PGCert	Postgraduate Certificate

These are further distinguished as being either full time (FT) part time (PT) programmes.

Some of our postgraduate taught programmes have the option of alternative exit routes: eg. Postgraduate Diploma or Postgraduate Certificate. These are lesser qualifications that demand a reduced scheme of study, e.g. fewer modules or a shorter project report. For full details, refer to the appropriate section of this Handbook.

Unless the context indicates otherwise, the term "MSc" in this Handbook includes the Diploma and Certificate routes, if they exist.

18. BSc / MMath Computer Science and Mathematics

This section of the handbook deals with the BSc and MMath Degree programmes.

18.1. MMath Degree Regulations

The formal regulations relating to academic progress, transfers and the award of degrees are contained in the booklet Ordinances and Regulations, a copy of which is issued to all students when they register at the University. The following is an explanation of how the relevant regulations are applied by the joint Board of Studies in Computer Science and Mathematics.

18.1.1 Transfer between BSc and MMath programmes

1) You are permitted to transfer from the BSc (CS / Maths) programme to the MMath programme at any time up to the end of your second year, subject to making satisfactory progress. However, if you are funded by a Local Education Authority you must complete any transfer before the start of Year 2 if the transfer requires an extension of the period of study.
2) Similarly, you may transfer from the MMath programme to the BSc (CS / Maths) at any time up to the end of the second year.

18.1.2 Progress from Year 2 to Year 3

1) Progress to year III is conditional upon satisfactory academic results in the first two years. You are normally expected to achieve an aggregate mark of at least 50% in Computer Science and at least 60% in Mathematics.
2) If this standard is not reached, you may be required to transfer to the BSc programme for your third (and final) year. At the discretion of the combined Board of Studies, you may be allowed to continue on the MMath programme with a Maths aggregate between 50% and 60%. Only in exceptional circumstances would you be permitted to continue without aggregate marks of at least 50% in each subject.

18.1.3 Progress from Year 3 to Year 4

1) To continue on the MMath programme you must obtain an aggregate mark of 50% in each subject after Part III examinations. If you don't reach this standard, but do not have a failing mark, you are normally recommended for the award of a BSc degree at the end of the third year, with the appropriate classification.

18.1.4 Progress during Year 4

1) To qualify for the award of the MMath degree, you must normally pass the project (PR4 or the Mathematics Project, as appropriate).
2) The MMath degree is an honours degree that may be awarded in one of the following classes: Class I; Class II division (i); Class II division (ii); Class III. In appropriate circumstances, the degree of MMath with Honours (Aegrotat) may be awarded. There is no "Ordinary" MMath degree.
3) When you proceed to Year 4 of the programme you normally relinquish your right to the award of a BSc degree. However, in exceptional circumstances, if you are unable to complete Year 4 of the programme you may apply through the Joint Board to the University's Special Cases Committee for the award of a BSc degree. The award of a BSc degree in such circumstances may be deferred until the date when you would have completed the MMath programme.

18.2. CS / Maths Second Year Modules (2[MN]2)

The division of workload between parts A and B for Computer Science modules is 20 credits in part A and 40 credits in part B. The division of workload between parts A and B in Mathematics is normally the same but there may be some room for flexibility.

In Computer Science, you must choose two strands from the following:

MSD+RDQ+TSP (Software Engineering strand - SE)
OPS+NDS+LSA (Systems Strand - SY)
DOI+CGV (User Interfaces strand - UI)
TOC+LPA (Theory/ AI strand - TH_AI)

- CGV and LSA require that you have knowledge of the programming language C. A crash course on C is held in Autumn Week 1.
- TSP may clash with Mathematics examinations in the first week of the Summer term; students who take this module do so at their own risk.
- The use of mathematical methods or application of mathematical results plays a major role in the following modules: CGV, TOC and LPA.
- CGV, DOI and LSA may be available as third year options if you do not take in your second year.

18.2.1 CS / Maths Second year Modules Part A

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
CCC	0650690	Crash Course on C	0		-	O	Alistair Edwards	Aut/1	
DOI	0620357	Design of Interactive Systems	10	CS2-E	UI	O	Christopher Power	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
MSD	0620147	Modelling & System Design	10	CS2-A	SE	O	Dimitris Kolovos, Georgios Despotou	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
OPS	0620131	Operating Systems	10	CS1-B	SY	O	Neil Audsley	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
TOC	0620132	Theory of Computing	10	CS2-D	TH/AI	O	Detlef Plump	Aut/2-7	Closed: 1.5 hrs - Spring Week 1

18.2.2 CS / Maths Second year Modules Part B

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
RDQ	0620358	Relational Databases & Query Languages	10	CS2-A	SE	O	Ana Cavalcanti	Spr/2-10	Closed: 1.5 hrs - Summer Week 8
TSP	0620359	Team System Project	10	CS2-A	SE	O	Tim Kelly	Sum/1	Open: Sum/1/Wed - Sum/2/Fri
LSA	0620354	Lexical & Syntax Analysis of Programming Languages	10	CS2-B	SY	O	Matthew Naylor	Spr/8-10, Sum 3-6	Closed: 1.5 hrs - Summer Week 8
NDS	0630164	Networks & Distributed Systems	10	CS2-B	SY	O	Alan Burns, Iain Bate	Spr/2-7	Closed: 1.5 hrs - Summer Week 1 Monday or Tuesday
LPA	0620146	Logic Programming & Artificial Intelligence	20	CS2-D	TH/AI	O	Dimitar Kazakov, Daniel Kudenko	Spr/2-10, Sum/3-6	Closed: 3.0 hrs - Summer Week 8 Closed: 0.2 hrs - Spr, Sum Weekly in practicals
CGV	0620145	Computer Graphics & Visualisation	20	CS2-E	UI	O	Adrian Bors, William Smith	Spr/2-10	Open: Sum/3/Wed - Sum/6/Wed Closed: 1.5 hrs - Summer Week 8
SUB	XXXXXXX	Setting up a Business	0		-	O	Jim Austin	Sum/9	

18.3. CS / Maths Third year Modules (3[MN][13])

BSc CS/Maths
In year 3, BSc CS/ Maths students do 120 credits in total. You can choose to do a 40-credit project in CS or in Maths or no project in either subject.

If you do a CS project your credit distribution must be 70:50 CS:Maths.
If you do a Maths project your credit distribution must be 50:70 CS:Maths.
If you don't do a project in either subject you may distribute your credits 50:70, 60:60 or 70:50 CS:Maths.

MMath CS/ Maths
In year 3, MMath CS/ Maths students do 120 credits in total. You can also choose to do a 40-credit project in CS or in Maths or no project in either subject in year 3.

If you do a CS project your credit distribution must be 70:50 CS:Maths.
If you do a Maths project your credit distribution must be 50:70 CS:Maths.
If you don't do a project in either subject your credit distibution must be 60:60 CS:Maths.

Please note:

- As part of the CS Project (PR3), you are required to attend the lectures for Computer Science Writing (CSW), in the Autumn term. If you choose a Maths project, a writing module will be incorporated within it.
- MMath students can only take one Computer Science project: either PR3 in year 3 or PR4 in year 4, but not both.
- The use of mathematical methods or application of mathematical results plays a major role in the following modules: AGM, CRY, CVI, FSS, FUN and GRA.
- There is no compulsory stranding (though pre-requisites must be met) but you are encouraged to pick modules in strands. Check each module description for pre-requisites.
- DOI, CGV and LSA can only be taken in the third year if you did not take them in the second year. MMath students should bear in mind that while many options may also be available in their fourth year, DOI, CGV and LSA will not.
- CGV and CGO and LSA require that you have knowledge of the programming language C. A Crash Course in C is held in Week 1 Autumn Term.

3M1 or 3N1	
Part A	Part B
10 credits CS option	20 credits of CS options
CS Project (PR3, 40 credits) (includes taught material from CSW)	
20 credits of Maths	30 credits of Maths

Or

3M3 and 3N3	
Part A	Part B
20 credits of CS options	30 credits of CS options
30 credits of Maths	40 credits of Maths

18.3.1 BSc / MMath, CS / Maths Third Year modules Part A

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
AGM	0630395	Algorithms for Graphical Models	10		AI	O	James Cussens	Aut/2-10	Open: Aut/9/Wed - Spr/3/Wed
PAT	0630156	Pattern Recognition & Neural Networks	10		AR	O	Richard Wilson	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
CSW	0630390	Computer Science Writing	10		MI	O	Steve King	Aut/2-5	Presentation: - Open: Aut/5/Wed - Spr/3/Wed
NSC	0640176	Non-Standard Computation	10		MI	O	Susan Stepney	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
FUN	0630386	Functional Programming	10		PR	O	Colin Runciman	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
FSS	0630380	Formal Specifications of Systems	10		TH	O	Jeremy Jacob	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
DOI	0620357	Design of Interactive Systems	10	CS2-E	UI	O	Christopher Power	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
CCC	0650690	Crash Course on C	0		-	O	Alistair Edwards	Aut/1	

18.3.2 BSc / MMath, CS / Maths Third Year modules Part A+B

PR3	0630181	Project	40		-	M	Supervisor	Aut/1-10, Spr/1-10	Project: Aut/1/Mon - Spr/10/Tue Presentation: Spr/10/Thu - Spr/10/Fri

18.3.3 BSc / MMath, CS / Maths Third Year modules Part B

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
AFG	0630106	Artificial Intelligence for Games	10		AI	O	Daniel Kudenko	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
CVI	0630387	Computer Vision	20		AR	O	Adrian Bors, Edwin Hancock	Spr/2-10, Sum/2-4	Closed: 3.0 hrs - Summer Week 7
SDM	0630394	System Design Methodologies	10		MO	O	Richard Paige	Spr/2-10	Open: Sum/2/Wed - Sum/5/Wed
PUP	0630393	Principles of Unconventional Programming	10		PR	O	Alan Wood	Spr/2-10	Closed: 1.5 hrs - Summer Week 7
CRY	0630109	Crypto, Attacks & Countermeasures	10		SC	O	John Clark	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
DCR	0630401	Design of Concurrent & Reactive Systems	10		SE	O	Ana Cavalcanti	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
CGO	0630384	Code Generation & Optimisation	10		SY	O	Matthew Naylor	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
LSA	0620354	Lexical & Syntax Analysis of Programming Languages	10	CS2-B	SY	O	Matthew Naylor	Spr/8-10, Sum 3-6	Closed: 1.5 hrs - Summer Week 8
RTS	0630174	Real Time Systems & Programming Languages	20		SY	O	Andy Wellings, Alan Burns	Spr/2-10, Sum/2-5	Closed: 3.0 hrs - Summer Week 7
CGV	0620145	Computer Graphics & Visualisation	20		UI	O	Adrian Bors, William Smith	Spr/2-10	Open: Sum/3/Wed - Sum/6/Wed Closed: 1.5 hrs - Summer Week 8
GRA	0630400	Computing by Graph Transformation	10		-	O	Detlef Plump	Spr/2-10	Closed: 1.5 hrs - Summer Week 7
SEM	0630379	Semantics of Programming Languages	10		-	O	Jeremy Jacob	Spr/2-10	Closed: 1.5 hrs - Summer 1
SUB	XXXXXXX	Setting up a Business	0		-	O	Jim Austin	Sum/9	

18.4. MMath Fourth year Modules (4N[13])

As a fourth year MMath student, you must do either a CS or a Maths project (if you took a project in your third year, you may not take your fourth year project in the same department). You must also take 40 credits of CS options (either 10 in Part A plus 30 in Part B, or 20 + 20) and 40 credits of Maths options. 4N1 students do more Computer Science than Maths (80:40), including a Computer Science project; and 4N3 students do more Maths than Computer Science (80:40), including a Maths project.

If you choose a Maths project, a writing module is incorporated within it. If you choose a CS project, you will also attend the lectures of the CS writing module CSW.

See section 11.3 for general information about your choice of options.

As well as third year CS modules not previously studied, you are also permitted to take some MEng modules. Note that these are often taught in a more intensive fashion, with lectures compressed into a few weeks rather than being spread over weeks 2-10.

Some of the modules available as 4th year options also form part of the MSc Natural Computation. If you think you might wish to apply for this MSc after completing your MMath, you should discuss this with Jon Timmis, the Course Coordinator for the MSc Natural Computation, before making your option selections for the 4th year, to ensure you will have sufficient options remaining within the MSc Natural Computation.

Please note:

- You may only choose options that you have not taken in previous years.
- CGO requires that you have knowledge of the programming language C. A Crash Course in C is held Week 1 Autumn Term.
- You are allowed to take 10 credits of electives replacing a Maths module in the 4th year. You are not allowed to take an elective to replace a CS module.
- The use of mathematical methods or application of mathematical results plays a major role in the following modules: AGM, CRY, CVI, FSS, QIP, FUN and GRA.

18.4.1 MMath, Maths / CS Fourth Year modules Part A

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
AGM	0630395	Algorithms for Graphical Models	10		AI	O	James Cussens	Aut/2-10	Open: Aut/9/Wed - Spr/3/Wed
PAT	0630156	Pattern Recognition & Neural Networks	10		AR	O	Richard Wilson	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
CBA	0640531	Cooperative Bio-Inspired Algorithms	10		MI	O	Jon Timmis	Aut/2-5	Open: Aut/5/Wed - Aut/10/Wed
CSW	0630390	Computer Science Writing	10		MI	O	Steve King	Aut/2-5	Presentation: - Open: Aut/5/Wed - Spr/3/Wed
NSC	0640176	Non-Standard Computation	10		MI	O	Susan Stepney	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
QIP	0630391	Quantum Information Processing	10		MI	O	Sam Braunstein	Aut/6-10	Closed: 1.5 hrs - Spring Week 1 Mon/Tue Closed: 0.0 hrs -
FUN	0630386	Functional Programming	10		PR	O	Colin Runciman	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
CRS	0640502	Critical Systems	10		SY	O	Alan Burns, Iain Bate	Aut/6,7	Open: Aut/7/Mon - Spr/2/Fri Presentation: Aut/7/Fri - Aut/10/Tue
EVO	0640534	Evolutionary Algorithms	10		SY	O	Simon Hickinbotham, Susan Stepney	Aut/6-10	Open: Aut/9/Wed - Spr/4/Wed
FSS	0630380	Formal Specifications of Systems	10		TH	O	Jeremy Jacob	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
CCC	0650690	Crash Course on C	0		-	O	Alistair Edwards	Aut/1	
COP	0640178	Constraint Programming	10		-	O	Alan Frisch	Aut/6-9	Open Assessment: Aut/10/Mon - Spr/3/Wed
UCD	0640554	User Centred Design	10		-	O	Christopher Power	Aut/7-10	Open Assessment: Aut/10/Wed - Spr/3/Wed

18.4.2 MMath, Maths / CS Fourth Year modules Part A+B

PR4	0640498	4th Year Project	40		-	O	Supervisor	Aut/1-10, Spr/1-10, Sum/1-3	Project: Aut/1/Mon - Sum/3/Tue Presentation: Sum/3/Thu - Sum/3/Fri

18.4.3 MMath, Maths/CS Fourth Year modules Part B

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
AFG	0630106	Artificial Intelligence for Games	10		AI	O	Daniel Kudenko	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
CVI	0630387	Computer Vision	20		AR	O	Adrian Bors, Edwin Hancock	Spr/2-10, Sum/2-4	Closed: 3.0 hrs - Summer Week 7
CBC	0640512	Computing with Biology & Chemistry	10		MI	O	Simon O'Keefe	Spr/6-10	Open: Spr/10/Wed - Sum/3/Wed
SDM	0630394	System Design Methodologies	10		MO	O	Richard Paige	Spr/2-10	Open: Sum/2/Wed - Sum/5/Wed
PUP	0630393	Principles of Unconventional Programming	10		PR	O	Alan Wood	Spr/2-10	Closed: 1.5 hrs - Summer Week 7
CRY	0630109	Crypto, Attacks & Countermeasures	10		SC	O	John Clark	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
DCR	0630401	Design of Concurrent & Reactive Systems	10		SE	O	Ana Cavalcanti	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
SMT	0640493	Software Measurement & Testing	10		SE	O	Manuel Oriol	Spr/7-10	Open: Spr/10/Wed - Sum/3/Wed
CGO	0630384	Code Generation & Optimisation	10		SY	O	Matthew Naylor	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
RTS	0630174	Real Time Systems & Programming Languages	20		SY	O	Andy Wellings, Alan Burns	Spr/2-10, Sum/2-5	Closed: 3.0 hrs - Summer Week 7
SYA	0640204	Systems Architectures	10		SY	O	Iain Bate	Spr/2-5	Open: Spr/5/Wed - Spr/10/Wed
ALA	0640175	Adaptive & Learning Agents	10		-	O	Dimitar Kazakov	Spr/2-10	Open: Spr/10/Wed - Sum/3/Wed
EHW	0640532	Evolvable Hardware	10		-	O	Andy Tyrell	Spr/2-5	Open: Spr/5/Wed - Spr/10/Wed
EME	0640533	Emergence	10		-	O	Fiona Polack, Susan Stepney	Spr/6-9	Open: Spr/9/Wed - Sum/3/Wed
GRA	0630400	Computing by Graph Transformation	10		-	O	Detlef Plump	Spr/2-10	Closed: 1.5 hrs - Summer Week 7
SEM	0630379	Semantics of Programming Languages	10		-	O	Jeremy Jacob	Spr/2-10	Closed: 1.5 hrs - Summer 1
SUB	XXXXXXX	Setting up a Business	0		-	O	Jim Austin	Sum/9	
TPS	0640510	Topics in Privacy & Security	10		-	O	John Clark	Sum/4	Open: Sum/4/Thu - Sum/6/Fri
UTP	0640511	Unifying Theories of Programming	10		-	O	Jim Woodcock	Sum/4	Open Assessment: Sum/4/Fri - Sum/6/Fri

19. BEng and MEng Programmes with shared pathways (CS, CSSE, CSESE, CSAI and CSBES)

This section of the handbook deals with the undergraduate programmes:
(1) **CS** BEng/ BSc Computer Science,
(2) **CSSE** MEng Computer Systems and Software Engineering ,
(3) **CSESE** BEng and MEng Computer Science with Embedded Systems Engineering,
(4) **CSAI** MEng Computer Science with Artificial Intelligence, and
(5) **CSBES** MEng Computer Science with Business Enterprise Systems

19.1. BEng programmes (CS and CSESE)

The BEng degrees are Bachelor-level degrees awarded at the end of three taught undergraduate years. The BEng/ BSc CS and BEng/ BSc CSESE programmes share common modules in Year 1. In Year 2, CS students can choose whether or not to continue with the computer hardware strand (EL), but for CSESE students, the EL strand is compulsory.

See sections 19.5.3-19.5.5 for third year modules on these schemes.

19.2. MEng programmes Degree Regulations (CSSE, CSESE, CSAI, CSBES)

The MEng degrees are masters-level degrees awarded at the end of four taught undergraduate years. The MEng programmes in CSSE, CSESE, and CSAI share common modules in Year 1 and Year 2. The MEng CSBES programme includes some specialist modules in Year 1 and Year 2.

See sections 19.5.6 – 19.5.7 for third year modules in these schemes.

The formal regulations relating to academic progress, transfers and the award of degrees are contained in the booklet Ordinances and Regulations, a copy of which is issued to all students when they register at the University. The following is an explanation of how the relevant regulations are interpreted by the Board of Studies and by the Senate of the University, which may delegate its powers in these matters to the Special Cases Committee.

19.2.1 Transfer between BEng CS and MEng programmes

1. Students are normally permitted to transfer from the BEng/ BSc in CS or CSESE to any of the MEng programmes except CSBES before the start of Year 2. After that point, normally students will only be able to transfer to these MEng programmes if they have chosen to study the hardware strand EL in Year 2. See section 19.1.
2. Subject to satisfactory progress, students will be permitted to transfer from any of the MEng programmes except CSBES to either of the BEng programmes at any time up to the end of Year 2.
3. Students wishing to transfer from an MEng programme to a BEng/ BSc programme after the beginning of Year 3 must ask the Chair of Board of Studies to make an application to the Special Cases Committee of the University for approval. The Board of Studies will support such a request only in exceptional circumstances. The award of

the BEng / BSc degree may be deferred until the date when the MEng degree programme would normally have been completed.

4. Students who, for whatever reason, transfer out of one of the BCS/ IET accredited MEng programmes without having completed an individual final-year project will not be eligible for the award of a BCS/ IET accredited BEng or BSc degree. If a degree is awarded, it will be an unaccredited BSc.

19.2.2 Progress from Year 2 to Year 3

Progress to year 3 is conditional on satisfactory academic performance. Students on MEng programmes normally have to achieve a weighted aggregate mark of 50% after Part II (i.e. the Part I and Part II combined mark). Students achieving less than 50% must transfer to an appropriate BEng/ BSc programme.

19.2.3 Progress from Year 3 to Year 4

1. Progress to Year 4 is conditional upon satisfactory academic performance. To conform to national Masters-level criteria, students must achieve a minimum grade of Class II division (ii) i.e. an aggregate mark of 50% at the end of their third year. Only in very exceptional circumstances will the Board of Studies be prepared to recommend to the Senate that students who have achieved a lower grade be permitted to proceed to Year 4.
2. Students who are unable to proceed to the fourth year because they fail to reach the required academic standard will be eligible for the award of a BSc in CSSE degree at the end of Year 3, with the appropriate classification.
3. Students who have committed disciplinary offences, may be required to graduate before Part IV, with the appropriate classification.

19.2.4 Progress during Year 4

1. To qualify for the award of the MEng degree, students must achieve at least 50% in the final year, and must achieve at least 50% in the project (PR5)
2. The MEng degree is an honours degree that may be awarded in one of the following classes: Class I; Class II division (i); Class II division (ii). In appropriate circumstances, the degree of MEng with Honours (Aegrotat) may be awarded. There is no third class or "Ordinary" MEng degree.
3. Students who are unable to complete year 4 of their MEng degree in CSSE may be able to graduate with a BSc in Computer Systems and Software Engineering (CSSE). Students are not able to register for this degree, and cannot transfer onto it. It is only available as a result of a recommendation by the Board of Studies, at the end of the third or fourth year of the MEng in CSSE. The degree is not accredited by the BCS or IET. The content of the degree is identical to the first three years of the MEng programme in CSSE. The award of a BSc in CSSE will be considered in the following circumstances:
   - a third year MEng CSSE student who fails to meet the requirements to progress to the 4th year (50% overall)
   - a 4th year MEng CSSE student who does not meet the requirements for an MEng degree (currently 50% overall and a pass on the project, but see 1b above).

4. In both cases, a BSc in CSSE will be awarded, if appropriate, at the level achieved at the end of the third year. If a 4th year MEng student is unable to complete the year for

medical or compassionate reasons, they can either request an aegrotat degree or the award of the BSc in CSSE at the level achieved at the end of the third year. If, despite being unable to complete the fourth year, a student has met the requirements for accreditation, then a recommendation may be made for the award of the BSc/ BEng in Computer Science, the accredited 3-year degree.

NB The Board of Studies is considering arrangements for similar Bachelor-level exit awards for students taking the new MEng programmes in CSESE, CSAI and CSBES. Further details will be published in future handbooks.

19.3. Second year modules for BEng/BSc CS (2X0) and CSESE (2E0) and for MEng Programmes CSSE (2Y0), CSESE (2F0), CSAI (2A0) and CSBES (2S0)

See Section 11.2 for general information about choosing modules (if appropriate). Modules are listed in sections 19.3.3 – 19.3.9.

19.3.1 Rules

- All students take a combination of modules worth 120 credits.
- 2Y0, 2E0 and 2F0 students must take the EL strand and must not take the UI strand.
- 2X0 and 2A0 students take the Mandatory (M) Strands TH/ AI, SE,and SY and one of the Optional (O) strands: EL or UI.
- 2S0 students take 120 credits of Mandatory modules
- Modules in the UI strand (DOI and CGV) may be available as 3rd year options to those who do not take them in their 2nd year.

19.3.2 Notes

- Strands may not be split.
- LSA and CGV require knowledge of the C programming language. (This knowledge can be obtained from the unassessed module `Crash Course in C' (CCC), taught in Aut/ 1).

19.3.3 BEng/BSc (2X0) and MEng CSAI 2 (2A0) second year modules Part A

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
CCC	0650690	Crash Course on C	0		-	O	Alistair Edwards	Aut/1	
CTS	0620133	Chips to Systems	10	CS2-C	EL	O	Christopher Crispin-Bailey	Aut/2-10	Open: Aut/6/Wed - Aut/10/Wed
DOI	0620357	Design of Interactive Systems	10	CS2-E	UI	O	Christopher Power	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
MSD	0620147	Modelling & System Design	10	CS2-A	SE	M	Dimitris Kolovos, Georgios Despotou	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
OPS	0620131	Operating Systems	10	CS2-B	SY	M	Neil Audsley	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
TOC	0620132	Theory of Computing	10	CS2-D	TH/AI	M	Detlef Plump	Aut/2-7	Closed: 1.5 hrs - Spring Week 1

19.3.4 BEng/BSc (2X0) and MEng CSAI (2A0) second year modules Part B

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
MCP	0620143	Microcomputer Communications Project	20	CS2-C	EL	O	Nick Pears	Spr/2-10	Open Assessment - Code: Spr/2/Mon - Spr/10/Fri Open Assessment - Report: Spr/2/Mon - Sum/3/Wed
RDQ	0620358	Relational Databases & Query Languages	10	CS2-A	SE	M	Ana Cavalcanti	Spr/2-10	Closed: 1.5 hrs - Summer Week 8
TSP	0620359	Team System Project	10	CS2-A	SE	M	Tim Kelly	Sum/1	Open: Sum/1/Wed - Sum/2/Fri
LSA	0620354	Lexical & Syntax Analysis of Programming Languages	10	CS2-B	SY	O	Matthew Naylor	Spr/8-10, Sum 3-6	Closed: 1.5 hrs - Summer Week 8
NDS	0630164	Networks & Distributed Systems	10	CS2-B	SY	M	Alan Burns, Iain Bate	Spr/2-7	Closed: 1.5 hrs - Summer Week 1 (Monday or Tuesday)
LPA	0620146	Logic Programming & Artificial Intelligence	20	CS2-D	TH/AI	M	Dimitar Kazakov, Daniel Kudenko	Spr/2-10, Sum/3-6	Closed: 3.0 hrs - Summer Week 8 Closed: 0.2 hrs - Spr, Sum Weekly in practicals
CGV	0620145	Computer Graphics & Visualisation	20	CS2-E	UI	O	Adrian Bors, William Smith	Spr/2-10	Open: Sum/3/Wed - Sum/6/Wed Closed: 1.5 hrs - Summer Week 8
SUB	XXXXXXX	Setting up a Business	0		-	O	Jim Austin	Sum/9	

19.3.5 MEng CSSE (2Y0), BEng CSESE (2E0) and MEng CSESE (2F) second year modules Part A

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
CCC	0650690	Crash Course on C	0		-	O	Alistair Edwards	Aut/1	
CTS	0620133	Chips to Systems	10	CS2-C	EL	M	Christopher Crispin-Bailey	Aut/2-10	Open: Aut/6/Wed - Aut/10/Wed
MSD	0620147	Modelling & System Design	10	CS2-A	SE	M	Dimitris Kolovos, Georgios Despotou	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
OPS	0620131	Operating Systems	10	CS2-B	SY	M	Neil Audsley	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
TOC	0620132	Theory of Computing	10	CS2-D	TH	M	Detlef Plump	Aut/2-7	Closed: 1.5 hrs - Spring Week 1

19.3.6 MEng CSSE (2Y0), BEng CSESE (2E0) and MEng CSESE (2F) second year modules Part B

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
LPA	0620146	Logic Programming & Artificial Intelligence	20	CS2-D	AI	M	Dimitar Kazakov, Daniel Kudenko	Spr/2-10, Sum/3-6	Closed: 3.0 hrs - Summer Week 8 Closed: 0.2 hrs - Spr, Sum Weekly in practicals
MCP	0620143	Microcomputer Communications Project	20	CS2-C	EL	M	Nick Pears	Spr/2-10	Open Assessment - Code: Spr/2/Mon - Spr/10/Fri Open Assessment - Report: Spr/2/Mon - Sum/3/Wed
RDQ	0620358	Relational Databases & Query Languages	10	CS2-A	SE	M	Ana Cavalcanti	Spr/2-10	Closed: 1.5 hrs - Summer Week 8
TSP	0620359	Team System Project	10	CS2-A	SE	M	Tim Kelly	Sum/1	Open: Sum/1/Wed - Sum/2/Fri
LSA	0620354	Lexical & Syntax Analysis of Programming Languages	10	CS2-B	SY	O	Matthew Naylor	Spr/8-10, Sum 3-6	Closed: 1.5 hrs - Summer Week 8
NDS	0630164	Networks & Distributed Systems	10	CS2-B	SY	M	Alan Burns, Iain Bate	Spr/2-7	Closed: 1.5 hrs - Summer Week 1 Monday or Tuesday
SUB	XXXXXXX	Setting up a Business	0		-	O	Jim Austin	Sum/9	

19.3.7 MEng CSBES (2S0) second year modules Part A

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
CCC	0650690	Crash Course on C	0		-	O	Alistair Edwards	Aut/1	
DOI	0620357	Design of Interactive Systems	10	CS2-E	UI	M	Christopher Power	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
MSD	0620147	Modelling & System Design	10	CS2-A	SE	M	Dimitris Kolovos, Georgios Despotou	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
OPS	0620131	Operating Systems	10	CS2-B	SY	M	Neil Audsley	Aut/2-10	Closed: 1.5 hrs - Spring Week 1

19.3.8 MEng CSBES (2S0) second year modules Part A+B

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
SES	0620360	Seminar in Enterprise Systems	20	CS2-F	-	M	Dimitris Kolovos, Manuel Oriol, Richard Paige, Simon Poulding	Aut/2-10, Spr/2-10/Sum3-6	Open Assessment 1: - tbc Open Assessment 2: - tbc

19.3.9 MEng CSBES (2S0) second year modules Part B

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
LPA	0620146	Logic Programming & Artificial Intelligence	20	CS2-D	AI	M	Dimitar Kazakov, Daniel Kudenko	Spr/2-10, Sum/3-6	Closed: 3.0 hrs - Summer Week 8 Closed: 0.2 hrs - Spr, Sum Weekly in practicals
NDS	0630164	Networks & Distributed Systems	10	CS2-B	SY	M	Alan Burns, Iain Bate	Spr/2-7	Closed: 1.5 hrs - Summer Week 1 Monday or Tuesday
RDQ	0620358	Relational Databases & Query Languages	10	CS2-A	SE	M	Ana Cavalcanti	Spr/2-10	Closed: 1.5 hrs - Summer Week 8
SOS	0620361	Service-Oriented Systems	20	CS2-F	-	M	Alek Radjenovic, Dimitris Kolovos	Spr/2-10, Sum/3-6	Closed: 2.0 hrs - Summer Week 8
TSP	0620359	Team System Project	10	CS2-A	SE	M	Tim Kelly	Sum/1	Open: Sum/1/Wed - Sum/2/Fri

19.4. Third year Modules for BEng/BSc CS (3X0) and CSESE (3E0) and for MEng CSSE (3Y0) and CSESE (3F0)

See Section 11.2 for general information about choosing modules. The modules are listed on pages

19.4.1 Rules

- All students take a combination of modules worth 120 credits.
- CGO and FSS are compulsory for all students.
- CSW and RTS are compulsory for MEng (3Y0 and 3F0) students.
- EDI is compulsory for CSESE (3E0 and 3F0) students.
- The 40-credit individual project (PR3) is compulsory for BEng/ BSc (3X0 and 3E0) students. As part of PR3, 3X0 and 3E0 students must attend the lectures for CSW in Autumn term.
- MEng (3Y0 and 3F0) students do not take a project in Year 3.
- DOI and CGV may only be taken in Year 3 if you did not take them in Year 2.

19.4.2 Notes

- 3X0 students can choose whether to graduate with a BEng or BSc degree. You will be e-mailed in the January before your graduation, asking which degree title you would prefer. There is no difference in content between BEng and BSc.

When choosing modules students should bear in mind the following points.

- Allocation of modules to strands is for information only. Students should consider if they wish to study a number of topics in depth; they are advised to do so if considering further study.

- All students should aim to have a balanced workload across the year. BEng/ BSc (3X0) students are advised to take 30 credits of taught modules in Part A, and 50 in Part B. MEng (3Y0) students are advised to take 40 credits of taught modules in Part A, and 80 in Part B.

- CGO and CGV require knowledge of the C programming language. An unassessed module `Crash Course in C' (CCC), is offered in Autumn Week 1.

19.4.3 BEng/BSc CS (3X0) third year modules Part A

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
AGM	0630395	Algorithms for Graphical Models	10		AI	O	James Cussens	Aut/2-10	Open: Aut/9/Wed - Spr/3/Wed
PAT	0630156	Pattern Recognition & Neural Networks	10		AR	O	Richard Wilson	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
CSW	0630390	Computer Science Writing	10		MI	O	Steve King	Aut/2-5	Presentation: -Open: Aut/5/Wed - Spr/3/Wed
NSC	0640176	Non-Standard Computation	10		MI	O	Susan Stepney	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
FUN	0630386	Functional Programming	10		PR	O	Colin Runciman	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
FSS	0630380	Formal Specifications of Systems	10		TH	M	Jeremy Jacob	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
DOI	0620357	Design of Interactive Systems	10		UI	O	Christopher Power	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
CCC	0650690	Crash Course on C	0		-	O	Alistair Edwards	Aut/1	

19.4.4 BEng/BSc CS (3X0)third year modules Part A + B

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
EDI	0630402	Embedded System Design & Implementation	20		EL	O	Leandro Soares Indrusiak, Neil Audsley	Aut 2-10, Spr 2-6	Open Assessment 1: Aut/8/Mon - Aut/8/Fri Open Assessment 2: Spr/6/Wed - Sum/2/Wed
PR3	0630181	Project	40		-	M	Supervisor	Aut/1-10, Spr/1-10	Project: Aut/1/Mon - Spr/10/Tue Presentation: Spr/10/Thu - Spr/10/Fri

19.4.5 BEng/BSc CS (3X0) third year modules Part B

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
AFG	0630106	Artificial Intelligence for Games	10		AI	O	Daniel Kudenko	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
CVI	0630387	Computer Vision	20		AR	O	Adrian Bors, Edwin Hancock	Spr/2-10, Sum/2-4	Closed: 3.0 hrs - Summer Week 7
SDM	0630394	System Design Methodologies	10		MO	O	Richard Paige	Spr/2-10	Open: Sum/2/Wed - Sum/5/Wed
PUP	0630393	Principles of Unconventional Programming	10		PR	O	Alan Wood	Spr/2-10	Closed: 1.5 hrs - Summer Week 7
CRY	0630109	Crypto, Attacks & Countermeasures	10		SC	O	John Clark	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
DCR	0630401	Design of Concurrent & Reactive Systems	10		SE	O	Ana Cavalcanti	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
CGO	0630384	Code Generation & Optimisation	10		SY	M	Matthew Naylor	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
RTS	0630174	Real Time Systems & Programming Languages	20		SY	O	Andy Wellings, Alan Burns	Spr/2-10, Sum/2-5	Closed: 3.0 hrs - Summer Week 7
CGV	0620145	Computer Graphics & Visualisation	20		UI	O	Adrian Bors, William Smith	Spr/2-10	Open: Sum/3/Wed - Sum/6/Wed Closed: 1.5 hrs - Summer Week 8
GRA	0630400	Computing by Graph Transformation	10		-	O	Detlef Plump	Spr/2-10	Closed: 1.5 hrs - Summer Week 7
SEM	0630379	Semantics of Programming Languages	10		-	O	Jeremy Jacob	Spr/2-10	Closed: 1.5 hrs - Summer 1
SUB	XXXXXXX	Setting up a Business	0		-	O	Jim Austin	Sum/9	

19.4.6 BEng/BSc CSESE (3E0) third year modules Part A

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
AGM	0630395	Algorithms for Graphical Models	10		AI	O	James Cussens	Aut/2-10	Open: Aut/9/Wed - Spr/3/Wed
PAT	0630156	Pattern Recognition & Neural Networks	10		AR	O	Richard Wilson	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
NSC	0640176	Non-Standard Computation	10		MI	O	Susan Stepney	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
FUN	0630386	Functional Programming	10		PR	O	Colin Runciman	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
FSS	0630380	Formal Specifications of Systems	10		TH	M	Jeremy Jacob	Aut/2-10	Closed: 1.5 hrs - Spring Week 1

19.4.7 BEng/BSc CSESE (3E0) third year modules Part A+B

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
EDI	0630402	Embedded System Design & Implementation	20		EL	O	Leandro Soares Indrusiak, Neil Audsley	Aut 2-10, Spr 2-6	Open Assessment 1: Aut/8/Mon - Aut/8/Fri Open Assessment 2: Spr/6/Wed - Sum/2/Wed
PR3	0630181	Project	40		-	M	Supervisor	Aut/1-10, Spr/1-10	Project: Aut/1/Mon - Spr/10/Tue Presentation: Spr/10/Thu - Spr/10/Fri

19.4.8 BEng/BSc CSESE (3E0) third year modules Part B

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
AFG	0630106	Artificial Intelligence for Games	10		AI	O	Daniel Kudenko	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
CVI	0630387	Computer Vision	20		AR	O	Adrian Bors, Edwin Hancock	Spr/2-10, Sum/2-4	Closed: 3.0 hrs - Summer Week 7
SDM	0630394	System Design Methodologies	10		MO	O	Richard Paige	Spr/2-10	Open: Sum/2/Wed - Sum/5/Wed
PUP	0630393	Principles of Unconventional Programming	10		PR	O	Alan Wood	Spr/2-10	Closed: 1.5 hrs - Summer Week 7
CRY	0630109	Crypto, Attacks & Countermeasures	10		SC	O	John Clark	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
DCR	0630401	Design of Concurrent & Reactive Systems	10		SE	O	Ana Cavalcanti	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
CGO	0630384	Code Generation & Optimisation	10		SY	M	Matthew Naylor	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
RTS	0630174	Real Time Systems & Programming Languages	20		SY	M	Andy Wellings, Alan Burns	Spr/2-10, Sum/2-5	Closed: 3.0 hrs - Summer Week 7
GRA	0630400	Computing by Graph Transformation	10		-	O	Detlef Plump	Spr/2-10	Closed: 1.5 hrs - Summer Week 7
SEM	0630379	Semantics of Programming Languages	10		-	O	Jeremy Jacob	Spr/2-10	Closed: 1.5 hrs - Summer 1
SUB	XXXXXXX	Setting up a Business	0		-	O	Jim Austin	Sum/9	

19.4.9 MEng CSSE (3Y0) third year modules Part A

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
AGM	0630395	Algorithms for Graphical Models	10		AI	O	James Cussens	Aut/2-10	Open: Aut/9/Wed - Spr/3/Wed
PAT	0630156	Pattern Recognition & Neural Networks	10		AR	O	Richard Wilson	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
CSW	0630390	Computer Science Writing	10		MI	M	Steve King	Aut/2-5	Presentation: - Open: Aut/5/Wed - Spr/3/Wed
NSC	0640176	Non-Standard Computation	10		MI	O	Susan Stepney	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
FUN	0630386	Functional Programming	10		PR	O	Colin Runciman	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
FSS	0630380	Formal Specifications of Systems	10		TH	M	Jeremy Jacob	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
DOI	0620357	Design of Interactive Systems	10		UI	O	Christopher Power	Aut/2-10	Closed: 1.5 hrs - Spring Week 1

19.4.10 MEng CSSE (3Y0) third year modules Part A+B

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
EDI	0630402	Embedded System Design & Implementation	20		EL	O	Leandro Soares Indrusiak, Neil Audsley	Aut 2-10, Spr 2-6	Open Assessment 1: Aut/8/Mon - Aut/8/Fri Open Assessment 2: Spr/6/Wed - Sum/2/Wed

19.4.11 MEng CSSE (3Y0) third year modules Part B

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
AFG	0630106	Artificial Intelligence for Games	10		AI	O	Daniel Kudenko	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
CVI	0630387	Computer Vision	20		AR	O	Adrian Bors, Edwin Hancock	Spr/2-10, Sum/2-4	Closed: 3.0 hrs - Summer Week 7
SDM	0630394	System Design Methodologies	10		MO	O	Richard Paige	Spr/2-10	Open: Sum/2/Wed - Sum/5/Wed
PUP	0630393	Principles of Unconventional Programming	10		PR	O	Alan Wood	Spr/2-10	Closed: 1.5 hrs - Summer Week 7
CRY	0630109	Crypto, Attacks & Countermeasures	10		SC	O	John Clark	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
DCR	0630401	Design of Concurrent & Reactive Systems	10		SE	O	Ana Cavalcanti	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
CGO	0630384	Code Generation & Optimisation	10		SY	M	Matthew Naylor	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
RTS	0630174	Real Time Systems & Programming Languages	20		SY	M	Andy Wellings, Alan Burns	Spr/2-10, Sum/2-5	Closed: 3.0 hrs - Summer Week 7
CGV	0620145	Computer Graphics & Visualisation	20		UI	O	Adrian Bors, William Smith	Spr/2-10	Open: Sum/3/Wed - Sum/6/Wed Closed: 1.5 hrs - Summer Week 8
GRA	0630400	Computing by Graph Transformation	10		-	O	Detlef Plump	Spr/2-10	Closed: 1.5 hrs - Summer Week 7
SEM	0630379	Semantics of Programming Languages	10		-	O	Jeremy Jacob	Spr/2-10	Closed: 1.5 hrs - Summer 1
SUB	XXXXXXX	Setting up a Business	0		-	O	Jim Austin	Sum/9	

19.4.12 MEng CSESE (3F0) third year modules Part A

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
AGM	0630395	Algorithms for Graphical Models	10		AI	O	James Cussens	Aut/2-10	Open: Aut/9/Wed - Spr/3/Wed
PAT	0630156	Pattern Recognition & Neural Networks	10		AR	O	Richard Wilson	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
CSW	0630390	Computer Science Writing	10		MI	M	Steve King	Aut/2-5	Presentation: - Open: Aut/5/Wed - Spr/3/Wed
NSC	0640176	Non-Standard Computation	10		MI	O	Susan Stepney	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
FUN	0630386	Functional Programming	10		PR	O	Colin Runciman	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
FSS	0630380	Formal Specifications of Systems	10		TH	M	Jeremy Jacob	Aut/2-10	Closed: 1.5 hrs - Spring Week 1
CCC	0650690	Crash Course on C	0		-	O	Alistair Edwards	Aut/1	

19.4.13 MEng CSESE (3F0) third year modules Part A+B

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
EDI	0630402	Embedded System Design & Implementation	20		EL	O	Leandro Soares Indrusiak, Neil Audsley	Aut 2-10, Spr 2-6	Open Assessment 1: Aut/8/Mon - Aut/8/Fri Open Assessment 2: Spr/6/Wed - Sum/2/Wed

19.4.14 MEng CSESE (3F0) third year modules Part B

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
AFG	0630106	Artificial Intelligence for Games	10		AI	O	Daniel Kudenko	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
CVI	0630387	Computer Vision	20		AR	O	Adrian Bors, Edwin Hancock	Spr/2-10, Sum/2-4	Closed: 3.0 hrs - Summer Week 7
SDM	0630394	System Design Methodologies	10		MO	O	Richard Paige	Spr/2-10	Open: Sum/2/Wed - Sum/5/Wed
PUP	0630393	Principles of Unconventional Programming	10		PR	O	Alan Wood	Spr/2-10	Closed: 1.5 hrs - Summer Week 7
CRY	0630109	Crypto, Attacks & Countermeasures	10		SC	O	John Clark	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
DCR	0630401	Design of Concurrent & Reactive Systems	10		SE	O	Ana Cavalcanti	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
CGO	0630384	Code Generation & Optimisation	10		SY	M	Matthew Naylor	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
RTS	0630174	Real Time Systems & Programming Languages	20		SY	M	Andy Wellings, Alan Burns	Spr/2-10, Sum/2-5	Closed: 3.0 hrs - Summer Week 7
GRA	0630400	Computing by Graph Transformation	10		-	O	Detlef Plump	Spr/2-10	Closed: 1.5 hrs - Summer Week 7
SEM	0630379	Semantics of Programming Languages	10		-	O	Jeremy Jacob	Spr/2-10	Closed: 1.5 hrs - Summer 1
SUB	XXXXXXX	Setting up a Business	0		-	O	Jim Austin	Sum/9	

19.5. Fourth year Modules for MEng CSSE (4Y0)

The fourth year of the MEng contains three components totalling 120 credits:

- An individual project (PR5), worth 50 credits.
- A group project (PRG) worth 20 credits.
- Five taught modules, making up the remaining 50 credits (see below for constraints on taught module selection)

To balance the workload across the year, students must choose:

- At least one of EVO, COP, CRS, QIP or UCD in the Autumn Term
- Either TPS or UTP in the Summer Term

It is also recommended that students take at least 20 credits each from two distinct strands. (Note - UI is not considered to be a strand)

In contrast to the previous years of the programme, fourth-year MEng modules are taught in several modes, some of which are more intensive than in previous years. Some modules are taught in the normal way over a period of several weeks. Some modules are taught over fewer weeks than normal. Some are taught in one-week slots, from 9.15 on Monday to lunchtime on Friday (which will include a Wednesday afternoon). Here the teaching takes the form of lectures interspersed with exercises, small group sessions and practicals and the entire day is filled. Within these blocks, the precise arrangement of teaching and practical sessions is determined by the lecturer concerned: more details can be found in the module web pages. However, they will normally consist of a mixture of lectures, directed research and work on larger-scale exercises with some lecturer assistance. The assessment for these modules may involve a student presentation.

Since students take only five options, there are some weeks when there is no timetabled teaching. During those weeks, students work on individual projects and on the assessments: The majority of fourth-year options are examined by open assessment only. Assessment hand-out and hand-in dates are given in the tables that follow.

As noted in section 11.2.3, where enrolment for a module is judged too small to make the module viable, it may be withdrawn. Students are notified of withdrawals as soon as possible. They will be asked to make alternative selections within the restrictions stated above.

Some of the modules available as 4th year options also form part of the MSc Natural Computation. Students who might wish to apply for this MSc after completing the MEng should discuss this with Jon Timmis, the Course Coordinator for the MSc Natural Computation, before making option selections for the 4th year.

19.5.1 MEng CSSE fourth year Modules Part A

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
COP	0640178	Constraint Programming	10		-	O	Alan Frisch	Aut/ 6-9	Open Assessment: Aut/10/Mon - Spr/3/Wed
CRS	0640502	Critical Systems	10		-	O	Alan Burns, Iain Bate	Aut/6,7	Open: Aut/7/Mon - Spr/2/Fri Presentation: Aut/7/Fri - Aut/10/Tue
EVO	0640534	Evolutionary Algorithms	10		-	O	Simon Hickinbotham, Susan Stepney	Aut/6-10	Open: Aut/9/Wed - Spr/4/Wed
PRG	0640505	MEng Group Project 4th Year	20		-	M	Georgios Despotou	Aut/2-5	Interim Group Report: Aut/2/Mon - Aut/3/Wed Group Presentation: Aut/5/Tue - Aut/5/Tue Individual Report: Aut/2/Mon - Aut/5/Fri Final Group Report: Aut/2/Mon - Aut/5/Fri
QIP	0630391	Quantum Information Processing	10		-	O	Sam Braunstein	Aut/6-10	Closed: 1.5 hrs - Spring Week 1 Mon/Tue
UCD	0640554	User Centred Design	10		-	O	Christopher Power	Aut/7-10	Open Assessment: Aut/10/Wed - Spr/3/Wed

19.5.2 MEng CSSE fourth year Modules Part A + B

PR5	0640506	MEng 4th Year Project	50		-	M	Supervisor	Aut/6-10, Spr/1-10, Sum/1-3	Project: Aut/6/Mon - Sum/3/Tue Presentation: Sum/3/Thu - Sum/3/Fr

19.5.3 MEng CSSE fourth year Modules Part B

Module	Code	Full Title	Credits	Clump	Strand	Status	Lecturer	Teaching	Assessments
ALA	0640175	Adaptive & Learning Agents	10		-	O	Dimitar Kazakov	Spr/2-10	Open: Spr/10/Wed - Sum/3/Wed
CBC	0640512	Computing with Biology & Chemistry	10		-	O	Simon O'Keefe	Spr/6-10	Open: Spr/10/Wed - Sum/3/Wed
EHW	0640532	Evolvable Hardware	10		-	O	Andy Tyrell	Spr/2-5	Open: Spr/5/Wed - Spr/10/Wed
EME	0640533	Emergence	10		-	O	Fiona Polack, Susan Stepney	Spr/6-9	Open: Spr/9/Wed - Sum/3/Wed
SMT	0640493	Software Measurement & Testing	10		-	O	Manuel Oriol	Spr/7-10	Open: Spr/10/Wed - Sum/3/Wed
SYA	0640204	Systems Architectures	10		-	O	Iain Bate	Spr/2-5	Open: Spr/5/Wed - Spr/10/Wed
TPS	0640510	Topics in Privacy & Security	10		-	O	John Clark	Sum/4	Open: Sum/4/Thu - Sum/6/Fri
UTP	0640511	Unifying Theories of Programming	10		-	O	Jim Woodcock	Sum/4	Open Assessment: Sum/4/Fri - Sum/6/Fri

20. Full-Time Taught Postgraduate Degree Regulations

The general regulations in this handbook apply, except when superseded by the specific points below.

20.1. Introduction

The Department of Computer Science offers five full time taught postgraduate programmes:

- Computing (MSc, Certificate)
- Human-Centered Information Technologies (MSc, Diploma, Certificate)
- Information Technology (MSc, Certificate)
- Natural Computation (MSc, Certificate)
- Software Engineering (MSc, Certificate)
- Social Informatics and Interactive Technologies (MSc, Diploma, Certificate)

Each of the MSc programmes comprises taught modules as well as a project. The course contents and structures vary for each of the programmes.

20.2. Attendance

The full-time taught postgraduate programmes run for 12 months from October, the start of the academic year. Students on these programmes are expected to be in attendance at York for the full 12 months except for when the department is closed, i.e. weekends, between Christmas Eve and New Years Day inclusive, and between Easter Friday and Easter Monday inclusive. Supervisors may be prepared (following the procedure laid down in section 2.2.3) to grant a short leave of absence of up to three days outside of these times to students in good academic standing who are making satisfactory progress with their projects. Absences longer than this can only be approved by the Chair of Board of Studies.

20.3. Assessments

Assessments in the full-time taught postgraduate programmes comprise open and closed examinations. Examination marks are determined in the first instance by the relevant Board of Examiners, which makes its recommendations to the Board of Studies in Computer Science. Refer to section 8.1.

For performance on the taught elements to be deemed satisfactory, the student must normally achieve an average of at least 50% for the assessed modules. In addition, the student will be required to demonstrate a good level of competence across modules. 50% is the pass mark for each module.

For performance on the project to be deemed satisfactory, the student must normally achieve a mark of at least 50%. To obtain an MSc or a Diploma, the student must pass both the taught and project phases.

Additional requirements may apply for each programme – see the appropriate sections for details.

Resits are not allowed at masters level.

Progress of students is assessed at a meeting of the Board of Examiners during the summer term. Students are then advised on whether their performance is satisfactory.

For those courses that support the Diploma, transfer to the Diploma is compulsory for students who do not attain the appropriate MSc level in taught modules but who do achieve an appropriate level for a Diploma. For those who attain the required MSc level but wish to transfer to the Diploma, transfer is normally permitted up to the start of the summer vacation term.

For all other courses, students who do not attain the appropriate MSc level in taught modules
but who do achieve an appropriate level for a Certificate will be awarded the certificate and will be required to withdraw.

Students who are failing at this point and who do not satisfy the requirements for a Diploma or a Certificate will be required to withdraw.

The Board of Examiners has absolute discretion in its recommendations for the award of certificate/ diploma/ degree. The final results from the programme are available after the final external examiners meeting which normally takes place in the autumn term.

For outstanding performance, the Board of Examiners and Board of Studies may choose to recommend the award of an MSc with distinction. Such awards are entirely at the discretion of the University Senate, but the normal criteria for recommendation of a distinction are: to have passed all module assessments (50% or more in each assessment); to have an average mark greater than 70%; to have a project mark greater than 70%; and to have an average greater than 65% in other assessments.

21. MSc in Computing

21.1. Introduction

The MSc in Computing is a one-year full-time programme for students with a good first degree in IT. Since the programme is full-time, no provision can be made for students to complete any part of the programme, in particular the project, away from the University.

The objectives of the programme are:

- To train students in modern methods in software design, development and testing
- To prepare students for jobs as expert programmers, technical consultants and software engineers.
- To prepare students for entry into research degrees or research projects

The main content of the programme is designed to be directly applicable to those areas of work identified above. The central emphasis is on building robust and reliable software systems. The programme focuses on software design, in depth programming related topics and user interfaces.

The MSc Computing programme is organized into modules (see section 1.2.3). Students must take all of the modules. Each module comprises a mixture of lectures, problem classes and practical classes plus a significant amount of personal study time. In addition, each student is a member of a tutorial group, which meets regularly with a supervisor. Examinations take place at the points indicated in the table in section 21.3.2 and 21.3.3

21.2. MSc in Computing Degree Regulations

The general regulations in this handbook apply (see section 0), except when superseded by the specific points below.

21.2.1 Assessments

For the award of MSc, at most two module failures in 90 credits will normally be allowed. Allowance of failures is at the discretion of the Board of Examiners. The passing mark for a module is 50%.

21.3. MSc in Computing Structure

There are three basic forms of assessment associated with the programme: closed assessments, open assessments and the project. Closed assessments are usually taken at the same time as other university examinations. Open assessments are set at various times throughout the year with varying amounts of time being allowed for each assessment. The project is undertaken during the summer term and summer vacation.

There are two qualifications available in the programmes: an MSc degree and a Certificate. The MSc in Computing has taught elements and a project to be completed.

MSc Taught elements: Students must achieve an average of at least 50% in 90 credits of the taught part of the programme (excluding DMR, PTM & PPC).

MSc Project: Students must achieve at least an overall 50% in the project preparation PPC (10 credits) and the project report PR8 (80 credits).

Certificate: Students need to complete a total of taught 60 credits to receive a Certificate. Students are normally required to take JPC, CRT, SWI and two other modules of their choice. Students can only fail one 10 credit module to be awarded a Certificate. For assessment purposes, since SWI is a 20 credit module, SWI open assessment and SWI closed assessment will be taken as 10 credit modules each.

21.3.1 MSc/Diploma/Certificate Computing Pre-Term Modules

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
PTM	0650xxx	Pre-Term Module	0	M	Robert Alexander	Aut/1	Unassessed
DMR	06xxxx3	Discrete Mathematics Refresher	0	M	Jim Woodcock	Spr/1	Unassessed

21.3.2 MSc / Diploma/Certificate Computing Part A Modules

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
CRT	0640509	Concurrent & Real Time Programming	10	M	Andy Wellings	Aut/7-10	Closed: 2.0 hrs - Spring Week 1 Mon/Tue
CSA	0620330	Computer Systems Architecture	10	M	Mike Freeman	Aut/2-5	Closed: 1.5 hrs - Spring Week 1 Mon/Tue
JPC	0640543	Java Programming Concepts	10	M	Robert Alexander	Aut/2-5	Open Assessment for MSc Computing Students: Aut/5/Fri - Aut/7/Mon
UCD	0640554	User Centred Design	10	M	Christopher Power	Autumn 7-10	Open Assessment: Aut/10/Wed - Spr/3/Wed

21.3.3 MSc/Diploma/Certificate Computing Part B Modules

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
FMS	0640507	Formal Specification	10	M	Jim Woodcock	Spr/2-5	Open: Spr/5/Fri - Spr/10/Fri
PPC	0650695	Project Preparation	10	M	Supervisor	Sum/2-10	
SMT	0640493	Software Measurement & Testing	10	M	Manuel Oriol	Spr/7-10	Open: Spr/10/Wed - Sum/3/Wed
SUB	XXXXXXX	Setting up a Business	0	O	Jim Austin	Sum/9	
SWI	0610320	Software Engineering	20	M	Tommy Yuan	Spr/2-10	Open: Spr/6/Wed - Spr/10/Wed Closed: 1.5 hrs - Summer Week 1
WED	0620356	Web Design	10	M	Alistair Edwards	Spr/2-10	Open: Spr/10/Wed - Sum/3/Wed

(Please see MTC website for feedback dates)

21.3.4 MSc Computing Project

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
PR8	0640520	Final Project	80	M	Supervisor	Sum/8-Vac/11	Presentation: Vac/Week 12/Wed Thur Open: Vac/Week 1/Mon -Vac/Week11/Wed

22. MSc Software Engineering

22.1. Introduction

The MSc Software Engineering (SWE) is a full-time one-year programme designed to provide a thorough grounding in the techniques of software engineering to those who will become the professionals at the leading edge of progress in the field. The MSc Software Engineering is related to the other MSc programmes in the Department with similar forms of organization and some overlap of material.

The programmes aim to provide participants with:

- A thorough grounding in, and practical experience of, the use of state-of-the-art techniques for design and development, verification and validation in their area.
- An understanding of the principles behind these techniques so that they can make sound judgements during the specification, design, development and deployment of systems.

There are two qualifications available in this programme scheme: an MSc degree and a Certificate. The Certificate consists of a subset of the taught components while the MSc contains both taught components and a project, which is examined by dissertation. The taught elements are taken over the first two terms of the academic year and, for the MSc, consist of eight assessed modules. The project is an individual project carried out in the department, which must be completed within the same academic year as the taught components of the programme.

22.2. MSc Software Engineering Degree Regulations

The general regulations in this handbook apply (see section 0), except when superseded by the specific points below.

22.2.1 Assessments

For the award of MSc, at most two module failures will normally be allowed. Allowance of failures is at the discretion of the Board of Examiners.

22.3. MSc Software Engineering Degree Structure

For an explanation of "credits", see section 1.2.4. Modules marked "M" are Mandatory; those marked "O" are Optional.

22.3.1 MSc Software Engineering (MSc SWE)

Taught elements: eight mandatory modules; project: a five person-month project (90 credits including PPC).

22.3.2 Certificate Software Engineering (Cert SWE)

Taught elements: PSM and four other assessed modules (60 credits).

22.3.3 MSc Software Engineering Part A

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
CRT	0640509	Concurrent & Real Time Programming	10	M	Andy Wellings	Aut/7-10	Closed: 2.0 hrs - Spring Week 1 Mon/Tue
JAR	06xxxx4	Java Refresher	0	M	Tommy Yuan	Aut/1	
OOD	0640508	Object Oriented Design	10	M	Tim Hoverd	Aut/2-5	Closed: 2.0 hrs - Spring Week 1 Mon/Tue
RQE	0640180	Requirements Engineering	10	M	John Precious	Aut/2-5	Open: Aut/5/Fri - Aut/6/Fri
UCD	0640554	User Centred Design	10	M	Christopher Power	Aut/ 7-10	Open Assessment: Aut/10/Wed - Spr/3/Wed

22.3.4 MSc Software Engineering Part A+B

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
PSM	0640200	Practical Software Engineering & Management of Software Engineering	20	M	Tommy Yuan	Aut/2, Spr/1-3	Indiv Essay: Spr/4/Mon - Spr/10/Wed Group Project Report: Spr/1/Wed - Sum/3/Wed Individual Report on Group Project: Spr/1/Wed - Sum/3/Wed

22.3.5 MSc Software Engineering Part B

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
SMT	0640493	Software Measurement & Testing	10	M	Manuel Oriol	Spr/7-10	Open: Spr/10/Wed - Sum/3/Wed
SYA	0640204	Systems Architectures	10	M	Iain Bate	Spr/2-5	Open: Spr/5/Wed - Spr/10/Wed
DMR	06xxxx3	Discrete Mathematics Refresher	0	M	Jim Woodcock	Spr1	
FMS	0640507	Formal Specification	10	M	Jim Woodcock	Spr/2-5	Open: Spr/5/Fri - Spr/10/Fri
PPC	0650695	Project Preparation	10	M	Supervisor	Sum/2-10	
SUB	XXXXXXX	Setting up a Business	0	O	Jim Austin	Sum/9	

(Please see MTC website for feedback dates)

22.3.6 MSc/Diploma Software Engineering Final Project

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
PR2	0640538	Diploma Project	20	O	Supervisor	Sum/4-Vac/12	Presentation: Vac/Week 12/Wed Thur Open: Sum/8/Mon-Vac/11/Wed
PR8	0640520	Final Project	80	M	Supervisor	Sum/8-Vac/11	Presentation: Vac/Week 12/Wed Thur Open: Vac/Week 1/Mon -Vac/Week11/Wed

23. MSc Information Technology

23.1. Introduction

The MSc Information Technology is a one-year full-time programme for students with a good first degree in any subject except Computer Science (or similar). Since the programme is full-time, no provision can be made for students to complete any part of the programme, in particular the project, away from the University.

The objectives of the programme are:

- To educate students in the theories, technologies and practices that form the essential literacy of professionals in the IT industry.
- To prepare students for jobs in the fields of information systems development and software engineering.
- To prepare students for entry into research degrees or research projects.

The main content of the programme is designed to be directly applicable to these objectives identified above. The central emphasis is on systems, software and programming, with supporting emphasis on the one hand on mathematics and computer hardware, and on the other hand on the design and analysis of human-computer interfaces for systems and the management of information systems.

The MSc Information Technology programme is organized into modules (see section 1.2.3). Students must take all of the modules. Each module comprises a mixture of lectures, problem classes and practical classes plus a significant amount of personal study time. In addition, each student is a member of a tutorial group, which meets regularly with a supervisor. Examinations take place at the points indicated in the table in sections 23.3.2, 23.3.4 and 23.3.5.

23.2. MSc Information Technology Degree Regulations

The general regulations in this handbook apply, (see section 0) except when superseded by the specific points below.

23.2.1 Assessments

For the award of MSc, at most three module failures in 120 credits of taught modules will normally be allowed. For the award of the Certificate, failure in modules totalling at most 20 credits is normally allowed. Allowance of failures is at the discretion of the Board of Examiners.

23.3. MSc in Information Technology Degree Structure

There are three basic forms of assessment associated with the programme: closed assessments, open assessments and the project. Closed assessments are usually taken at the same time as other university examinations. Open assessments are set at various times throughout the year with varying amounts of time being allowed for each assessment. The project is undertaken during the summer term and summer vacation.

There are two qualifications available in the programmes: an MSc degree and a Certificate. The MSc contains taught elements and a project to be completed. The Certificate contains taught elements only.

MSc taught elements: all modules in the following table (120 credits); project: a project preparation period PPC (10 credits) and a project report (50 credits).

Certificate taught elements: modules totalling 50 credits.

23.3.1 MSc Information Technology Pre-Term Modules

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
PTC	0650601	Pre-term Course	10.00	M	Robert Alexander	Aut/1	Unassessed

23.3.2 MSc /Diploma Information Technology Part A

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
CSI	0650698	Computer Systems Architecture for IT	10	M	Mike Freeman	Aut/2-5	Closed: 1.5 hrs - Spring Week 1 Mon/Tue
APC	0650697	Advanced Programming Concepts	10	M	Robert Alexander	Aut/2-5	Open Assessment for MSc IT Students: Aut/5/Fri - Aut/9/Wed
MIP	0610311	Mathematics for Information Processing	10	M	Alan Wood	Aut/7-10	Closed: 1.5 hrs - Spring Week 1
UCD	0640554	User Centred Design	10	M	Christopher Power	Autumn 7-10	Open Assessment: Aut/10/Wed - Spr/3/Wed

23.3.3 MSc/Diploma Information Technology Part B

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
DIS	0620348	Design of Information Systems	10	M	Matthew Naylor	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
DWEB	0640555	Database-Driven Web Design	10	M	Alistair Edwards	Spr/2-10	Open Assessment: Spr/10/Wed - Sum/3/Wed
MSO	0650696	Management Systems & Organisation	10	M	Simon Poulding	Sum/2-6	Closed: 1.5 hrs - Summer Week 8
NWC	0620347	Networks & Communications	10	M	Alek Radjenovic	Sum/2-6	Closed: 1.5 hrs - Summer Week 8
OSI	0620349	Operating Systems for Information Processing	10	M	Leandro Soares Indrusiak	Spr/2-10	Closed: 1.5 hrs - Summer Week 1
PPC	0650695	Project Preparation	10	M	Supervisor	Sum/2-10	
SUB	XXXXXXX	Setting up a Business	0	O	Jim Austin	Sum/9	
SWI	0610320	Software Engineering	20	M	Tommy Yuan	Spr/2-10	Open: Spr/6/Wed - Spr/10/Wed Closed: 1.5 hrs - Summer Week 1

(Please see MTC website for feedback dates)

23.3.4 MSc/Diploma Information Technology Final Project

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
PRC	0650693	Project	50	M	Supervisor	Vac/1-11	Presentation: Vac/Week 12/Wed-Thur Open: Vac/Week 1/Mon -Vac/Week11/Wed
PRD	0650694	Project for Diploma in IT	30	O	Supervisor	Vac/1-1 1	Presentation: Vac/Week 12/Wed-Thur Open: Vac/Week 1/Mon -Vac/Week11/Wed

24. MSc Human-Centred Interactive Technologies

24.1. Introduction

The MSc Human-Centred Interactive Technologies (HCIT) is a one-year full-time programme, intended for students wishing to specialize in the design and evaluation of interactive technologies, having already completed an undergraduate degree in a computing-related discipline. The objectives of the programme are:

- to provide a specialist education in the theories of and methods for designing and evaluating interactive technologies.
- to provide a specialist education in the range of current research and practical topics of designing and evaluating interactive technologies.
- to provide practical experience (through practical work and the project) of designing and evaluating interactive technologies.

The unique emphasis of the MSc in Human-Centred Interactive Technologies programme is on developing an understanding of users' capabilities and requirements and developing a range of techniques to work with these users to produce interactive technologies that best suit their capabilities and requirements. This includes users with particular requirements (such as older and disabled users, or users in a diversity of cultural settings).

24.2. MSc HCIT Degree Regulations

The general regulations in this handbook apply (see section 20.3), except when superseded by the specific points below.

24.2.1 Assessments

To pass the MSc, students must achieve at least 50% in both the taught component and the project. They should normally not fail more than 20 credits, the pass mark for all modules being 50%. Variations from this are only for very exceptional situations and only with appropriate mitigating circumstances.

24.3. MSc HCIT Degree Structure

The MSc HCIT programme is organized into modules (see section 24.3.1). Students must take all of the modules. Each module comprises a mixture of lectures, problem classes and practical classes plus a significant amount of personal study time. These are taught in the first two terms of the academic year. In addition, each student is a member of a tutorial group, which meets regularly with a supervisor. Examinations take place at the points indicated in the table in sections 24.3.1 and 24.3.2 In addition, there is a substantial individual, research-based project which is done over the summer period.

There are three basic forms of assessment associated with the programme: closed assessments, open assessments and the project. Closed assessments are usually taken at the same time as other university examinations. Open assessments are set at various times throughout the year with varying amounts of time being allowed for each assessment. The project is assessed by a short presentation at the end of the academic year and by a project dissertation submitted around the same time.

There are three qualifications available in the programme: an MSc degree, a Diploma and a Certificate. The different qualifications comprise the following:

- MSc elements: all taught modules in the following table (90 credits); project: a project preparation period PPC (10 credits) and a project report (80 credits).
- Diploma elements: taught modules totalling 60 credits; a project preparation period PPC (10 credits) and a diploma project report (50 credits).
- Certificate elements: taught modules totalling 60 credits.

24.3.1 MSc Human-Centred Interactive Technologies Part A

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
QAL	0640545	Qualitative Research: Design Ethnography	10	M	Mark Blythe, Helen Petrie	Aut/7-10	Open: Aut/9/Wed - Spr/1/Wed
RQE	0640180	Requirements Engineering	10	M	John Precious	Aut/2-5	Open: Aut/5/Fri - Aut/6/Fri
UCD	0640554	User Centred Design	10	M	Christopher Power	Autumn 7-10	Open Assessment: Aut/10/Wed - Spr/3/Wed
UUS	0640544	Understanding Users	10	M	Helen Petrie	Aut/2-5	Closed: 1.5 hrs - Spring Week 1 Thurs/Fri

24.3.2 MSc Human-Centred Interactive Technologies Part B

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
AIT	0640546	Advanced Topics in Interactive Technologies	20	M	Alistair Edwards	Spr/2-10	Open: Spr/7/Wed - Spr/10/Wed
PPC	0650695	Project Preparation	10	M	Supervisor	Sum/2-10	
QNT	0640547	Quantitative Research Methods	10	M	Paul Cairns	Spr/2-5	Closed: 1.5 hrs - Summer Week 1
RMH	0640548	Research Methods for Human-Centred Interactive Technologies	10	M	Helen Petrie	Spr/7-10	Open: Spr/10/Wed - Sum/2/Wed
SUB	XXXXXXX	Setting up a Business	0	O	Jim Austin	Sum/9	
WED	0620356	Web Design	10	M	Alistair Edwards	Spr/2-10	Open: Spr/10/Wed - Sum/3/Wed

24.3.3 MSc Human-Centred Interactive Technologies Summer Vacation

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
PRH	0640549	HCIT Project	80	M	Supervisor	Vac/1-11	Presentation: Vac/Week 12/Wed Thur Open: Vac/Week 1/Monday - Vac/Week 11/Wed

(Please see MTC website for feedback dates)

25. MSc Natural Computation

25.1. Introduction

The MSc Natural Computation is a one-year programme, intended for students with a good first degree in Computer Science or a related discipline with an appropriate mathematical basis. It aims to provide participants with a thorough grounding in the use of advanced techniques of natural computation - broadening ideas about computation to include ideas from mathematics, physics, electronics and biology. At the discretion of the admissions tutor, appropriate recent experience may also be considered for applicants who do not have an appropriate Computer Science degree.

The objectives of the programme are:

- To provide a broad education in areas of natural computation and associated technologies, and
- To provide more specialised knowledge in natural computation technology via the project.

The MSc is intended for graduates who wish to develop knowledge and skills in this area before undertaking industrial work or academic study. In particular, this MSc is intended to provide a route into a PhD or research in this rapidly expanding field.

25.2. MSc Natural Computation Degree Regulations

The general regulations in this handbook apply (see section 20.3) , except when superseded by the specific points below.

25.2.1 Assessments

For the award of MSc, at most two module failures will normally be allowed. Allowance of failures is at the discretion of the Board of Examiners.

25.3. MSc Natural Computation Degree Structure

The MSc NC programme is available full-time only. The first half of the programme is taken up by taught modules, taken over the first two terms of the academic year. Each module comprises a mixture of lectures, problem classes and practical classes plus a significant amount of personal study time. The Computer Science Writing module is mandatory. In the latter half, students undertake an individual research project, under the supervision of a member of staff. The project must be completed within the academic year.

In addition, each student is a member of a tutorial group that meets regularly with a supervisor. The project supervisor takes over the role of general supervisor when the project phase begins.

There are two qualifications available on this programme: an MSc Degree and a Postgraduate Certificate.

The MSc comprises taught modules totalling 90 credits: made up of the mandatory modules CSW, CBA, EVO, NEU and QNT and a further 40 credits chosen from the available taught

module options, subject to prerequisite constraints; and the project: a project preparation period (10 credits) and a project report (80 credits).

The Postgraduate Certificate comprises taught modules totalling 60 credits including CSW.

25.3.1 MSc Natural Computation Part A

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
CSW	0630390	Computer Science Writing	10	M	Stefano Pirandola	Aut/2-5	Presentation: - Open: Aut/5/Wed - Spr/3/Wed
QIP	0630391	Quantum Information Processing	10	O	Sam Braunstein	Aut/6-10	Closed: 1.5 hrs - Spring Week 1 Mon/Tue
EVO	0640534	Evolutionary Algorithms	10	M	Simon Hickinbotham, Susan Stepney	Aut/6-10	Open: Aut/9/Wed - Spr/4/Wed
CBA	0640531	Cooperative Bio-Inspired Algorithms	10	M	Jon Timmis, Dan Franks	Aut/2-5	Open: Aut/5/Wed - Aut/10/Wed
NEU	0640535	Neural Computing	10	M	Simon O'Keefe	Aut/2-9	Open: Aut/9/Wed - Spr/3/Wed

25.3.2 MSc Natural Computation Part B

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
CBC	0640532	Computing with Biology & Chemistry	10	O	Simon O'Keefe	Spr/6-10	Open: Spr/10/Wed - Sum/3/Wed
ALA	0640175	Adaptive & Learning Agents	10	O	Dimitar Kazakov	Spring/2-10	Open: Spr/10/Wed - Sum/3/Wed
CDB	0281202	Complex Dynamical Biosystems	10	O	Susan Stepney	Spr1-4	Open: Spr/5/Mon - Spr/7/Mon
EHW	0640532	Evolvable Hardware	10	O	Andy Tyrell	Spr/2-5	Open: Spr/5/Wed - Spr/10/Wed
EME	0640533	Emergence	10	O	Fiona Polack, Susan Stepney	Spr/6-9	Open: Spr/9/Wed - Sum/3/Wed
PPC	0650695	Project Preparation	10	M	Supervisor	Sum/2-10	
QNT	0640547	Quantitative Research Methods	10	M	Paul Cairns	Spr/2-5	Closed: 1.5 hrs - Summer Week 1
SUB	XXXXXX	Setting up a Business	0	O	Jim Austin	Sum/9	

25.3.3 MSc Natural Computation Project

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
PR8	0640520	Final Project	80	M	Supervisor	Sum/8-Vac/11	Presentation: Vac/Week 12/Wed Thur Open: Vac/Week 1/Mon -Vac/Week11/Wed
PRO	064x6xx	Diploma Project for NC	50	O	Supervisor	Vac/1-11	Presentation: Vac/Week 12/Wed Thur Open: Vac/Week 1/Mon -Vac/Week11/Wed

26. MRes in Computational Biology

The MRes in Computational Biology is a one-year, full-time programme, run jointly by the Departments of Biology, Chemistry and Computer Science. Students will normally be expected to have a first or upper second-class honours degree in any Biological Science-related subject, although the programme is also open to students with a degree in Computer Science, Mathematics or Statistics who can demonstrate a commitment to the Biosciences.

The Computer Science Department provides the following teaching:

Module	Code	Full Title	Credits	Lecturer
IPPY	0680101	Introduction to Programming (Python)	10	James Cussens
CDB	0281202	Complex Dynamical Biosystems	10	Susan Stepney
IML	0690502	Introduction to Machine Learning	10	James Cussens, Daniel Kudenko, Simon O'Keefe
JBC	0281203	Biocomputing & Web Applications	10	

Students are required to undertake two research projects, one at York and one on external placement usually in industry or a research institute. Project 1 (spring term) is for 10 weeks and can be chosen from projects offered in Biology, Chemistry and Computer Science. Project 2 (summer term) is for 14 weeks and is external.

The programme receives seven BBSRC (Biotechnical and Biological Sciences Research Council) studentships.

The programme is administered by a Postgraduate Executive Committee, which is responsible to the Combined Board of Studies. The members of the Executive Committee are listed in section 8.3.

Further information can be found at:-

http:/ / www.york.ac.uk/ depts/ biol/ gsp/ prospective/ masters/ cb/ index.htm

27. MSc Social Informatics & Interactive Technologies

The MSc in Social Informatics and Interactive Technologies is a one-year, full-time programme, run jointly by the Departments of Sociology and Computer Science. Students will normally be expected to have a first or upper second-class honours degree in any Social Science or Computational related subject, although the programme is also open to students with relevant work experience.

The Computer Science Department provides the following teaching:

Module	Code	Full Title	Credits	Lecturer
UCD	0640554	User Centred Design	10	Christopher Power
UUS	0640544	Understanding Users	10	Helen Petrie
AIT	0640546	Advanced Topics in Interactive Technologies	20	Alistair Edwards
RMH	0640548	Research Methods for Human-Centred Interactive Technologies	10	Helen Petrie
WED	0620356	Web Design	10	Alistair Edwards

Students are required to undertake one research project, between May and September, based either in Computer Science or Sociology.

The programme is administered by the Department of Sociology, which is responsible to their Board of Studies.

Further information can be found at:-

http:/ / www.york.ac.uk/ depts/ soci/ degrees/ mscsiit.htm

28. Part-time MSc programmes

28.1. Introduction

The MSc in Safety-Critical Systems Engineering (MSc SCSE), the Certificate in System Safety Engineering (Cert SSE) and the MSc in Gas Turbine Control (MSc GTC) programmes are available as part-time programmes. Each module in the SSE and SCSE degrees qualifies as a Continuing Professional Development (CPD) activity for the Institution of Engineering and Technology and the British Computer Society.

There are three qualifications available through these part time MSc programmes: an MSc, a Diploma and a Certificate. The Certificate consists of a subset of the taught components while the MSc and Diploma contain both taught components and a project, which is examined by dissertation.

You may undertake 'taster' modules as an unregistered student prior to formal registration to the University of York. A maximum of 5 modules can be taken in this way before formal registration (for the MSc) is required. Once registered, you will have a registration period as outlined within these regulations. In order to contribute to an award (MSc, Diploma or Certificate) all modules must be completed within five years at the time of completion of the award.

28.2. Part-time MSc Degree Regulations

The general regulations in this handbook apply, except when superseded by the specific points below. In particular, the disciplinary procedure in section 2.3 of this handbook also applies, except that your supervisor initiates it.

28.2.1 Choosing and Changing Modules

The timings and order in which you undertake the modules for your programme should be by agreement with your supervisor, taking note of the module pre-requisites. When you register you should choose the modules you will take in your first year. Modules for subsequent years will need to be decided each July for SCSE / SSE students and January for GTC students.

You may request to change a selected module under the following conditions:

1. There are more than two weeks before start of the module,
2. There are fewer than 28 students registered for the module you wish to move to, and
3. The request is agreed by your supervisor and owner of the module you wish to change to

It is not possible to change modules once a module has started.

Cancellation or not of a module by the department in an academic year will take place in Aut/ 1 based on students' selections. Typically a module will run if 6 or more students are signed up.

Module selection and change forms are available from the programme web pages: www.cs.york.ac.uk/ MSc/ SCSE/ and www.cs.york.ac.uk/ MSc/ GTC/ .

28.2.2 Attendance

See section 2.2 for general regulations.

Each module is taught full-time at York over the period of a week. Your attendance is **compulsory** for all activities associated with the module during that week. (In addition, you are expected to spend about 30 hours on background reading and about 35 hours on the assessment.)

The standard hours for single week modules are Monday to Thursday: 0915 - 1800 with one-hour breaks for lunch, Friday: 0915 – 1315. These hours may be varied by individual lecturers to suit module needs.

28.2.3 Assessments

See section 16 for general regulations.

There are 50 marks available for each single module assessment. In total, there are 450 marks available for the taught elements of the MSc / Diploma SCSE. For the MSc / Diploma GTC 600 marks in total are available.

28.2.4 Remote Submission

Your examination number must be written on the front of your submission and each answer page. You *must not* identify yourself in any other way.

To submit an assessment using the postal system it should be posted before 12 noon on the day of the submission deadline. You must provide proof of this posting. One acceptable form of proof is to fax a Proof of Posting certificate to the Department fax, 01904 432767, before the deadline. You should post your open assessment and an accompanying remote submission form to:

Open Assessment Submission
Dept of Computer Science
University of York
Heslington, York, YO10 5GH, UK

Registered students can submit via an electronic procedure. To submit an assessment using the electronic procedure you should submit it before 12 noon on the day of the submission deadline. You should obtain proof of this electronic submission by printing a copy of the receipt, which is issued on submission of the assessment. It is also recommended that you initiate and print out an md5 checksum for your records to verify submission. *It is your responsibility to keep proof of submission*. You should submit electronic submissions via the Department's web page: www.cs.york.ac.uk/ submit/ .

You should submit your electronic submissions as a PDF or in PostScript format. You should report any failure of the electronic submission system to support@cs.york.ac.uk. The Department of Computer Science cannot accept responsibility for any external systems failures which result in electronic submissions not being submitted by the published deadline. If you wish to submit multiple files these must be archived to one zip file to prevent multiple submissions.

1) Assessment marks

All assessments for the part-time MSc programmes (GTC & SCSE) are open assessments. For your performance on the taught elements to be deemed satisfactory, you must normally achieve an average of at least 50% across the assessed modules. In addition, you are required to demonstrate a good level of competence in each module. You must genuinely attempt all assessments. If the Board of Examiners decides that you have not done so, they may deem you to have not completed your programme. In which case a lower, or no, award may be given. The pass mark for each module is 50%.

Occasional failures of modules may be allowed. The aim of these programmes is to produce competent engineers, and this fact will be taken into account when deciding whether to condone failures. For the Certificate (GTC & SCSE), only one failure of a module will normally be allowed. For the MSc (GTC & SCSE) and Diploma (GTC & SCSE), at most two failures will normally be allowed. Allowance of failures is at the discretion of the Board of Examiners.

Your final mark for the programme is the sum of the marks for the taught elements and the project. You will not normally be asked to undertake a resit at MSc level.

2) Satisfactory progress

Your progress is assessed at meetings of the Board of Examiners normally held during the autumn and summer terms. You will be advised on whether your performance is satisfactory. If you are failing the programme you will be required to transfer or withdraw at this point.

For your performance on the project to be deemed satisfactory, you must normally achieve a mark of at least 50%. To obtain an MSc or Diploma you must pass both the taught and project phases.

3) Distinctions

For outstanding performance on the programme, the Board of Examiners and Board of Studies may choose to recommend the award of an MSc with distinction. Such awards are entirely at the discretion of the University Senate, but the normal criteria for recommendation of a distinction are for you to have passed all assessments at the 50+% level; to have an average mark of 70+%; to have a project mark of 70+%; and to have an average of 65+% in other assessments.

4) Extensions & Mitigating Circumstances

Please see section 16.2 and 16.3.5 regarding extension requests and mitigating circumstances.

28.2.5 Part-time MSc projects

See section 15 for general regulations.

5) The role of the Industrial Supervisor

Any project you undertake that is involved with industry may have an Industrial Supervisor nominated by the company. The Industrial Supervisor acts as your mentor within the company, providing technical advice, for example, as necessary. Together with your line manager, the industrial supervisor is responsible for ensuring that you have both sufficient time and appropriate facilities to undertake the project. The industrial supervisor should

meet regularly with you to assess progress. However, overall your academic supervisor is the primary guide for your project.

6) Project work for part-time MSc students

Supervision meetings between you and your academic supervisor may take place either at the University, at your workplace, or by telephone as appropriate. You are required to provide a written summary of progress to your supervisor on the first Monday of each month during their project. You may post, fax or e-mail it to your supervisor. In addition, if you are an MSc SCSE student you should produce a draft literature survey at 4 months, and a draft statement of progress at 9 months, including an outline of the final dissertation.

If you are a part-time MSc student there will be three Project Weeks during the project period. If you are an MSc SCSE student you will be expected to be in York during the following weeks:

- Start of Project: Literature review
- +9 months Mid-project report
- +15 months Final write-up

There will be a minimal formal program during the week:

- Tutorial sessions with supervisors and other staff
- Meetings with other students for mutual support
- One or more formal discussions/ seminars, if requested.

If you are a part-time student taking any other course arrangements should be made to be in York in consultation with your Supervisor. The purpose of these weeks is to help you meet these important milestones. Otherwise, it is intended that you should make progress with the project in an undisturbed atmosphere.

Project weeks are compulsory. You may re-schedule your project weeks, by mutual agreement between your supervisor and yourself.

7) Part-time MSc project submission

You are required to submit two copies of your completed project report to Departmental Reception. In addition, you should submit an electronic version of the project report and documentation in PDF or PostScript format via the electronic project submission web page. This can be done up to 24 hours after the published paper submission deadline. See Table 56 MSc Safety-Critical Systems Engineering (MSc SCSE) Part B for project deadline.

You are required to give a presentation on your project. This presentation is assessed and counts for 5% of the project mark.

8) Diploma project submission

You are required to submit two copies of your completed Diploma project report to Departmental Reception at a date to be decided by your supervisor in consultation with them. For full time diploma students, the latest date for submission is that corresponding to the date of the MSc project submission.

28.2.6 Supervision for part- time MSc students

See section 2.1 for general regulations.

You will be allocated a personal supervisor in the Department of Computer Science who meets with you regularly to discuss progress during both the teaching and project phases. In addition, industrial supervisors are responsible for the day-to-day supervision of projects that are undertaken in industry.

You should arrange to see your supervisor during the week of every module that they are taking. You or your supervisor may request additional meetings, to be arranged by mutual agreement.

Your project supervisor will take over the role of general supervisor when the project phase begins.

28.3. Notes for MSc in Safety Critical Systems Engineering

The MSc SCSE emphasizes the issues involved in the construction of safety-critical systems incorporating software, while Cert SSE, offered only as a Certificate programme, takes a systems approach, emphasizing the principles and techniques of hazard and safety-assessment for a broad range of technologies.

The programmes are normally taken over three years, but there is a two-year option that you may apply for. In both cases, the taught elements are completed over two academic years. In the case of the 3-year programme, the project is started after the completion of the taught elements and is completed in the third academic year. In the case of the 2-year programme, the project is started during the first academic year, undertaken concurrently with the taught elements and completed during the second academic year. The part-time Certificate programme is taken over two academic years.

For part-time students starting in the 2010/ 11 academic year, the project is split into two: a 30-credit literature survey and a 60-credit MSc project. The literature survey must be passed in order to progress to the MSc project.

The decision to attempt to complete the MSc / Diploma in two years is made at the project allocation stage in the first year. It is at your own risk; it increases the pressure of work and the resulting self-induced increase in workload will not normally be allowed for in any requests you make for extensions. If you take the two-year option you will normally only be allowed to undertake projects on topics for which you have already taken and passed modules. The project is submitted at the end of the second year.

In exceptional circumstances, you may defer one optional module until the third year. If you wish to do this you must complete a "Part-Time Student Application To Defer a Module"

Form, available from the course web pages: www.cs.york.ac.uk/ MSc/ SCSE/ and www.cs.york.ac.uk/ MSc/ GTC/ .

The programme organizer may approve a request, if you are suitably experienced, to substitute an additional optional module for the mandatory foundation module (FSE). It will still be necessary to attend some sessions of the mandatory foundation module concerned with orientation to the programme as a whole.

Note that the fee for the programme does not depend on the time taken to complete it. If you elect to take the programme in two years, the balance will be billed at the start of the second year.

28.4. MSc Safety-Critical Systems Engineering Degree Structure

See section 28.2 for details of specific regulations for this degree. For an explanation of "credits", see section 1.2.4. Modules marked "M" are Mandatory; those marked "O" are Optional.

28.4.1 MSc Safety-Critical Systems Engineering (MSc SCSE) – part-time students starting from 2010/11

Taught elements: six mandatory modules, and three other assessed modules chosen from the available options (90 credits); projects: a two person-month literature survey (30 credits) and a four person-month MSc project (60 credits).

28.4.2 MSc Safety-Critical Systems Engineering (MSc SCSE) – part-time students starting prior to 2010/11

Taught elements: six mandatory modules, and three other assessed modules chosen from the available options (90 credits); project: a six person-month project (90 credits).

28.4.3 MSc Safety-Critical Systems Engineering (MSc SCSE) – full-time

Taught elements: six mandatory modules, and three other assessed modules chosen from the available options (90 credits); project: a six person-month project (90 credits).

28.4.4 Postgraduate Diploma Safety-Critical Systems Engineering (Dip SCSE)

Taught elements: as for the MSc (90 credits); project: a project report of approximately six weeks' work (30 credits).

28.4.5 Postgraduate Certificate in System Safety Engineering (Cert SSE)

Taught elements: five mandatory modules and one other assessed module (60 credits).

28.4.6 MSc Safety Critical Systems Engineering Degree (MSc SCSE) Pre Term modules

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
FSE	0640504	Foundations of System Safety	10	M	David Pumfrey, Mark Nicholson	Vac/14	Open: Vac/14/Thu - Aut/5/Wed

28.4.7 MSc Safety Critical Systems Engineering Degree (MSc SCSE)Part A modules

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
GS1	0640513	Systems Engineering I	10	O	Andrew Rae, Ibrahim Habli	Aut/1	Open: Aut/1/Thu - Aut/6/Wed
HRA	0640207	Hazard & Risk Assessment	10	M	David Pumfrey, Mark Nicholson	Aut/5	Open: Aut/5/Thu - Spr/1/Wed
SIP	0640528	Software Implementation	10	O	Andrew Rae, Zoe Stephenson	Aut/10	Open: Aut/10/Thu - Spr/5/Wed
SSA	0640209	Systems Safety Assessment	10	M	David Pumfrey, Mark Nicholson	Aut/9	Open: Aut/9/Thu - Spr/4/Wed
SWR	0640529	Software Requirements & Architectures	10	O	Ibrahim Habli	Aut/4	Open: Aut/4/Thu - Aut/11/Wed

28.4.8 MSc Safety Critical Systems Engineering Degree (MSc SCSE)Part B modules

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Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
STS	0640541	Software Testing for Safety Critical Systems (STS)	10	O	Ibrahim Habli, Manuel Oriol	Spr/6	Open: Spr/6/Thu - Spr/13/Wed
HFS	0640401	Human Factors Safety Critical Systems	10	O	Andrew Rae, Christopher Power	Spr/1	Open: Spr/1/Thu - Spr/8/Wed
CAS	0640205	Computers & Software	10	O	David Pumfrey, Ibrahim Habli	Sum/3	Open: Sum/3/Thu - Sum/10/Wed
ESE	0640525	Electrical Systems & EMC	10	O	Ibrahim Habli	Sum/5	Open Assessment: Sum/5/Thu - Vac/2/Wed
GS2	0640515	Systems Engineering II	10	O	Ibrahim Habli	Sum/10	Open Assessment: Sum/10/Thu - Vac/6/Wed
HRM	0640208	Hazard & Risk Management	10	M	Ibrahim Habli, Tim Kelly	Spr/4	Open: Spr/4/Thu - Spr/11/Wed
SCM	0640203	Safety Critical Project Management	10	M	Andrew Rae, David Pumfrey	Spr/7	Open: Spr/7/Thu - Sum/1/Wed
TLS	0640551	Through Life Safety (TLS)	10	M	Andrew Rae, Mark Nicholson	Spring/10	Open: Spr/10/Thu - Sum/3/Wed

(Please see MTC website for feedback dates)

28.4.9 MSc Safety-Critical Systems Engineering Degree (MSc SCSE)Final Project and Diploma

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
PRB	0640189	Project for Diploma SCSE (existing part-time students only)	30	O	Supervisor	Aut/2-10, Spr/1- 10, Sum/1-Vac/11	Presentation: Vac/Week 12/Wed Thur Open: Aut/2/Mon-Vac/11/Wed
PR9	0640521	Final Project SCSE (full-time students only from 2010/11)	90	M	Supervisor	Spr 13 -Vac/11	Presentation: Vac/Week 12/Wed Thur Open: Aut/2/Mon-Vac/11/Wed
PRL	0640550	Literature Survey for Project (part-time students starting from 2010/11)	30	M	Supervisor	Spr/13- Vac/11	Spr/11/Mon- Vac/11/Wed
PRS	0640552	SCSE Project (PRS) (part-time students starting from 2010/11)	30	M	Supervisor	Aut/1- Vac/11	Presentation: Vac/Week 12/Wed Thur Open: Aut/1/Mon-Vac/11/Wed

28.4.10 Postgraduate Certificate Systems Safety Engineering (Cert SSE) Pre Term modules

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
FSE	0640504	Foundations of System Safety	10	M	David Pumfrey, Mark Nicholson	Vac/14	Open: Vac/14/Thu - Aut/5/Wed

28.4.11 Postgraduate Certificate Systems Safety Engineering (Cert SSE) Part A modules

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
GS1	0640513	Systems Engineering I	10	O	Andrew Rae, Ibrahim Habli	Aut/1	Open: Aut/1/Thu - Aut/6/Wed
HRA	0640207	Hazard & Risk Assessment	10	O	David Pumfrey, Mark Nicholson	Aut/5	Open: Aut/5/Thu - Spr/1/Wed
SIP	0640528	Software Implementation	10	O	Andrew Rae, Zoe Stephenson	Aut/10	Open: Aut/10/Thu - Spr/5/Wed
SSA	0640209	Systems Safety Assessment	10	O	David Pumfrey, Mark Nicholson	Aut/9	Open: Aut/9/Thu - Spr/4/Wed
SWR	0640529	Software Requirements & Architectures	10	O	Ibrahim Habli	Aut/4	Open: Aut/4/Thu - Aut/11/Wed

28.4.12 Postgraduate Certificate Systems Safety Engineering (Cert SSE) Part B modules

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
CAS	0640205	Computers & Software	10	O	David Pumfrey, Ibrahim Habli	Sum/3	Open: Sum/3/Thu - Sum/10/Wed
ESE	0640525	Electrical Systems & EMC	10	O	Ibrahim Habli	Sum/5	Open Assessment: Sum/5/Thu - Vac/2/Wed
GS2	0640515	Systems Engineering II	10	O	Ibrahim Habli	Sum/10	Open Assessment: Sum/10/Thu - Vac/6/Wed
HFS	0640540	Human Factors Safety Critical Systems	10	O	Andrew Rae, Christopher Power	Spr/1	Open: Spr/1/Thu - Spr/8/Wed
HRM	0640208	Hazard & Risk Management	10	O	Ibrahim Habli, Tim Kelly	Spr/4	Open: Spr/4/Thu - Spr/11/Wed
SCM	0640203	Safety Critical Project Management	10	O	Andrew Rae, David Pumfrey	Spr/7	Open: Spr/7/Thu - Sum/1/Wed
STS	0640541	Software Testing for Safety Critical Systems	10	O	Ibrahim Habli, Manuel Oriol	Spr/6	Open: Spr/6/Thu - Spr/13/Wed
TLS	0640551	Through Life Safety	10	O	Andrew Rae, Mark Nicholson	Spring/10	Open: Spr/10/Thu - Sum/3/Wed

(Please see MTC website for feedback dates)

28.5. Notes for MSc Gas Turbine Control Students

The MSc GTC programme aims to provide participants with a thorough grounding and practical experience in the use of state-of-the-art techniques for development of embedded (gas turbine) control systems, together with an understanding of the principles behind these techniques so that they can make sound engineering judgments during the design and deployment of such a system.

The programme is available part-time only over a four year period. The six modules required to attain a certificate (Cert GTC) are taken in the first two years. The 12 modules required to attain a diploma (Dip GTC) are undertaken in the first 3 years. A project is undertaken in the fourth year to attain the MSc GTC.

Assessments may be submitted in electronic format (see Section 28.2.4).

28.6. MSc Gas Turbine Control Degree Structure

See section 28.2 for details of specific regulations for this degree. For an explanation of "credits", see section 1.2.4. Modules marked "M" are Mandatory; those marked "O" are Optional.

28.6.1 MSc in Gas Turbine Control (MSc GTC)

Taught elements: six mandatory modules and six other assessed modules chosen from the available options (120 credits); project: a four person-month project (60 credits).

28.6.2 Postgraduate Diploma in Gas Turbine Control (Dip GTC)

Taught elements: as for the MSc (120 credits); no project.

28.6.3 Postgraduate Certificate in Gas Turbine Control (Cert GTC)

Taught elements: six mandatory modules (60 credits).

28.6.4 MSc Gas Turbine Control (MSc GTC) Pre Term modules

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
GTI	06xxxx6	Gas Turbine Introduction	0	M	Ibrahim Habli	Vac/12 Tue	Open: Vac/12/Tue - Vac/14/Wed

28.6.5 MSc Gas Turbine Control (MSc GTC) Part A modules

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
ESE	0640525	Electrical Systems & EMC	10	O	Ibrahim Habli	Aut/7	Open Assessment: Aut/7/Thu - Spr/2/Wed
GS1	0640513	Systems Engineering I	10	M	Andrew Rae, Ibrahim Habli	Aut/1	Open: Aut/1/Thu - Aut/6/Wed
SIP	0640528	Software Implementation	10	O	Andrew Rae, Zoe Stephenson	Aut/10	Open: Aut/10/Thu - Spr/5/Wed
SWR	0640529	Software Requirements & Architectures	10	O	Ibrahim Habli	Aut/4	Open: Aut/4/Thu - Aut/11/Wed

28.6.6 MSc Gas Turbine Control (MSc GTC) Part B modules

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
CAS	0640205	Computers & Software	10	O	David Pumfrey, Ibrahim Habli	Sum/3	Open: Sum/3/Thu - Sum/10/Wed
ACS	0640522	Aircraft Systems	10	O	Mark Nicholson	Sum/5	Open Assessment: Sum/5/Thu - Vac/2/Wed
GS2	0640515	Systems Engineering II	10	O	Ibrahim Habli	Sum/10	Open Assessment: Sum/10/Thu - Vac/6/Wed
HCM	0640526	Health Monitoring	10	O	Andrew Rae	Sum/8	Open Assessment: Sum/8/Thu - Vac/5/Wed
SCM	0640203	Safety Critical Project Management	10	O	Andrew Rae, David Pumfrey	Spr/7	Open: Spr/7/Thu - Sum/1/Wed
SSG	0640516	Introduction to System Safety	10	M	David Pumfrey, Mark Nicholson	Sum/8	Open: Spr/2/Thu - Spr/9/Wed
STS	0640541	Software Testing for Safety Critical Systems	10	O	Ibrahim Habli, Manuel Oriol	Spr/6	Open: Spr/6/Thu - Spr/13/Wed

(Please see MTC website for feedback dates)

28.6.7 MSc Gas Turbine Control (MSc GTC) Year 4 Project

Module	Code	Full Title	Credits	Status	Lecturer	Teaching	Assessments
PR6	0640539	Final Project	60	M	Supervisor	Aut1-Vac11	Presentation: Vac/Week 12/Wed Thur Open: Aut/1/Mon-Vac/11/Wed

Appendix A: Mitigating Circumstances Policy Guidance for Students

What counts as a mitigating circumstance?
The University defines a mitigating circumstance as a problem that you have encountered which goes beyond the normal difficulties experienced in life and that has affected your academic performance adversely during the assessment period for which you are claiming.

The following guidance outlines the policy, procedure and evidence you need to submit if you want to make a claim for mitigating circumstances.

How and when do I make a claim?
You must notify your department of mitigating circumstances by submitting the Mitigating Circumstances Claim Form by the department's deadline (see your department's website for details). If you are requesting an extension you must submit your claim before the submission deadline. The form is available from the Departmental Reception Desk and online at http:/ / www.cs.york.ac.uk/ student/ mitigatingircumstances.pdf. In Computer Science, if you wish to request a deadline extension, complete the online form at http:/ / www.cs.york.ac.uk/ student/ extension/ . A mitigating circumstances form will be generated for you.

In the unlikely event that your mitigating circumstances prevent you from submitting your claim at the appropriate time, you should submit your claim as soon as you are able to do so. The evidence should show clearly why you were unable to submit the claim before the date of the assessment or the deadline for submission of the assessment.

The claim form
You should use the University Mitigating Circumstances Form to inform your department about circumstances that have arisen and/ or problems you have encountered that you believe may or have affected your academic performance in assessments. The form is available from the Departmental Reception desk or at
http:/ / www.cs.york.ac.uk/ student/ mitigatingircumstances.pdf

Information to assist you to complete the mitigating circumstances form:

PART A:
Name, Student Number, Programme Title and Department - You must complete all these sections.

Brief details of your mitigating circumstances
You must describe briefly and clearly the relevant circumstances involved, and how you feel that these affected you in relation to any assessment, for example having taken an exam whilst ill or completed coursework whilst experiencing exceptional personal difficulties (see below for more details).

List supporting evidence submitted
Enter details here of the documentary evidence you are submitting. These details should show the mitigating circumstances involved, relevant dates and evidence source, for

example your doctor.
Securely attach your evidence to the form. **Without relevant supporting evidence it is likely that your claim will be rejected** (see below for details).

Details of assessments affected
You must list each assessment that you believe will be or has been affected by the mitigating circumstances you are claiming and complete all sections.

Student Declaration:
You must read and sign the declaration and insert the date you signed the declaration.

PART B: This is for official use and must NOT be completed by you.

Additional Information:

How is my claim considered?
Your circumstances will normally be considered by a Mitigating Circumstances Committee (MCC), which will meet at least twice each term. Students cannot attend these meetings.

The MCC can consider your claim only if you have both completed the Mitigating Circumstances Claim form and submitted relevant evidence supporting your claim. Your claim will remain confidential and will be disclosed only to the MCC and those administering the Committee. For this reason your claim cannot be anonymous. If, however, you appeal against the decision of the MCC, members of the University's Special Cases Committee and its administrator will see your claim and the associated evidence.

What are the possible outcomes of my claim?
If your claim is ACCEPTED, it is usual that either you will be permitted to attempt the assessment again, or you will be granted an extension to the submission deadline.

If you are permitted a new attempt and you accept this option, and you received a mark for your original attempt, the original mark becomes void and is replaced with the mark for the new attempt.

If your claim is NOT ACCEPTED, the original mark for the assessment will stand. This mark could be a mark of zero if you have not taken the original assessment.

How will I be notified of the MCC's decision?
You will receive written/ email notification of the MCC's decision. You will be informed of the reason if your claim is rejected.

What evidence do I need to provide if I am ill?
If you fall ill and can go to the University's Health Centre, you can be seen by a Medical Advisor there. They will complete the 'Confirmation of lllness Affecting Assessment' form which you can use as evidence for your mitigating circumstances claim. This service is available for all students even if they are registered with another doctor.

If you cannot go to the University's Health Centre you can obtain evidence from another doctor. Please take a copy of the 'Confirmation of Illness Affecting Assessment' form with you.

Other third party medical evidence can also be considered, such as evidence of emergency treatment (e.g. from a dentist, Accident and Emergency doctor and others). This evidence should state the nature of your illness/ injury and the length of time you will not be able to engage with academic work effectively.

If you have suffered from long-term illness you should provide a medical certificate or letter from your usual doctor or hospital consultant. Letters from the Open Door Team regarding medical conditions should **specifically state** that "the Open Door team is in possession of documentary medical evidence to support this request" and state who has provided the evidence. (Letters from the Open Door Team regarding non-medical conditions are discussed below.)

What other circumstances are normally accepted and what evidence do I need to provide?

For all students:

Circumstances normally accepted	**Examples of evidence that would support a claim based on this circumstance**
Compassionate grounds	A letter from the Open Door Team, a counsellor or a relevant independent third-party explaining that, *in their professional opinion*, the circumstances have had a serious impact on your ability to engage with academic work effectively during the assessment period in question
Exceptional personal circumstances[2]	A letter from the Open Door Team, a counsellor or a relevant independent third-party explaining that, *in their professional opinion*, the circumstances have had a serious impact on your ability to engage with academic work effectively during the assessment period in question
Close bereavement[3]	A death certificate
Victim of a serious crime	A crime report and number
Disabilities for which reasonable adjustments are not yet in place and where the delay is not due to the student	A letter from the Disability Services
Serious and unforeseeable transport difficulties	A letter from the relevant transport company or evidence of a major road incident
Interviews for placements or for employment	Evidence showing that the interview date

[2] For example, the illness of a dependent or the repossession of your accommodation.

[3] The following relatives are accepted as 'close' without further evidence: spouse, child, parent, sibling, grandparent, and grandchild. For other bereavements, evidence of closeness in the form of a statement from a third party should also be provided. Additional evidence should be provided where mitigation is claimed for an extended period where the bereavement is not close, for example, for more than a fortnight following the death of the relevant person.

	cannot be rearranged
Legal proceedings requiring attendance	A letter from a solicitor or a court

For part-time students and research students in their writing-up period:

Paid work commitments or constraints arising from paid employment	Evidence of employment explaining that the circumstances have had a serious impact on your ability to engage with academic work effectively during the assessment period in question

Note: The timing and nature of the above circumstances should have adversely affected your performance on the assessment(s) for which you are claiming mitigating circumstances.

What does not count as a mitigating circumstance?

1. Paid work commitments or constraints arising from paid employment for full-time students;
2. Minor illnesses, for example, those for which only self-certification under the University scheme is available;
3. Disabilities for which reasonable adjustments have been made or where you have experience or time to manage the situation;
4. Long-standing minor medical conditions such as hay fever;
5. Over-sleeping;
6. Holidays;
7. Minor everyday surmountable obstacles, for example, disruption to normal domestic routine
8. English being a second language;
9. Moving house;
10. Deadlines for work being set close together;
11. Planned health appointments;
12. Financial difficulties;
13. Breakdown of personal relationships unless leading to compassionate circumstances as described above;
14. Weddings;
15. Unavailability of course books/ resources;
16. Attending or taking part in sporting or social events;
17. Voluntary work;
18. Unreasonable refusal to return to York for assessments scheduled in the vacation 're-sit' period.
19. Mitigating circumstances that affect an individual in relation to group assessed work cannot be claimed by other members of the group

What circumstances are never accepted

1. Loss of work not backed-up on disk or printing problems.
2. Misreading of the examination timetable.

Why might my claim be rejected?

1. The form is incomplete;

2. No independent documentary evidence has been supplied to support the request (letters from family, fellow students or academic supervisors are not normally sufficient on their own).
3. The timing of the circumstances cited would not have adversely affected the assessment(s);
4. The evidence submitted does not support the claim that the nature of the circumstances was over and above the normal difficulties.
5. The form was not submitted by the department deadline and the mitigating circumstances would not have prevented you making a claim by the deadline;
6. Sufficient mitigation has already been made for the same circumstances;
7. The mitigating circumstance is a disability for which reasonable adjustments have been made.
8. The circumstances are not, or not normally, accepted under Mitigating Circumstances Policy

How do you appeal against the decision of the MCC?
If the Board of Studies had not yet received the recommendation of the MCC you can ask the Board to consider your appeal. You should write to the Chair of the Board of Studies stating why you think the MCC has reached the wrong decision in your case.

If the Board of Studies has already received and approved the MCC's recommendation you will need to appeal to the Special Cases Committee. You should write to the Special Cases administrator stating why you think the MCC has reached the wrong decision in your case. You should do this within four weeks of receiving notice of the MCC's decision.

Information and advice on appeals is available from:
the administrator to Special Cases Committee: student-support@york.ac.uk and YUSU/ GSA – academic@yusu.org or advice@yorkgsa.org

The University's Academic Appeals Regulations can be found at:
http:/ / www.york.ac.uk/ admin/ aso/ ordreg/ r6.htm#6.4 (undergraduate students)
http:/ / www.york.ac.uk/ admin/ aso/ ordreg/ r2.htm#2.9 (postgraduate students)

Appendix B: New Modular Scheme and Computer Science Degrees

From October 2010, a new modular scheme will be phased in for all undergraduate degrees in the University. This means important changes to assessment, and changes to structures.

Undergraduates who entered in October 2009 are only affected by the changes if they take time out during the degree, and only on their return.

- Students who arrived in October 2009, and take a year in industry (sandwich placement), will return to "Stage 3" of the new scheme and the new assessment rules will apply to Stage 3 modules and results.
- All students on MEng degrees who arrived in October 2009 will take their final year ("Stage 4") under the new degree structure
- For students who arrived in October 2009 and undertake a year in industry during the MEng, both Stage 3 and Stage 4 will be under the new scheme and the new assessment rules.

Please read the following notes carefully, and discuss any concerns with your supervisor, or with Dr Fiona Polack, who is overseeing the introduction of the new modular scheme in Computer Science.

1. ASSESSMENT RULES

The existing assessment (progression etc) rules in the Students Handbook are unchanged for students in Stage 2 (second year) or above in 2010-11.

The new assessment rules commence with the first year intake in 2010-11 and work through year by year. Thus, for a student who arrived in October 2009 and takes a year in industry, the new assessment rules will apply when they return, to Stage 3 in October 2012, and/ or Stage 4 from October 2013.

- From these dates progression and degree award will depend on gaining credit.
- Credit will be gained only by passing modules.
- Each module will be given a single mark on the University Mark Scale (an integer in the range 0 - 100).
- To pass (i.e. to get a classified honours degree), a BSc/ BEng student will need 120 credits, and a credit mean of 40 in Stage 3; An MEng/ MMath student will need 120 credits, and a credit mean of 50 in Stage 4.

The University rules for the new scheme are at
http:/ / www.york.ac.uk/ admin/ aso/ teach/ modular/ assessandaward.pdf.
The rest of Point 1 is an extract provided by the University, with explanations for Computer Science in [square brackets].

1.i. COMPENSATION

[NOTE: all CS modules except projects are likely to be deemed compensatable.]

Credit is awarded upon passing a module's assessment(s). In defined circumstances, however, credit may be awarded for failed module(s) where the failure is compensated by achievement in other module(s).

Compensation in Stage 3 of bachelors programmes [final year of BSc or BEng, and BSc in CS/ Maths]:
If a student fails one or more modules s/ he may still receive the credit and progress to classification provided that:

i. s/ he has failed [mark < 40] no more than 40 credits, and
ii. no module mark falls below the threshold for compensation appropriate for its level [lowest permitted mark is 30], and
iii. the rounded credit-weighted mean over all modules taken in the stage (including the failed module(s)) is at least 40.

Compensation in integrated masters programmes [MEng, MMath degrees]:
In Stage 3, if a student fails one or more modules s/ he may still receive the credit and progress provided that:

i. s/ he has failed [mark < 40 at Stage 3] no more than 40 credits, and
ii. no module mark falls below the threshold for compensation appropriate for its level[lowest permitted mark is 30], and
iii. the rounded credit-weighted mean [here, a straight mean of marks in Stage 3] over all modules taken in the stage (including the failed module(s)) is at least 40, and
iv. the rounded credit-weighted mean over all modules taken in Stages 2 and 3 (including the failed module(s)) [here, a straight mean of marks in Stage 3 and the mark recorded at the end of Stage 2] is at least 50.

[A student registered for MEng or MMath who does not achieve a mean mark of 50 over Stages 2 and 3 together, will be transferred automatically to the appropriate Bachelor's degree, much as now, but must then take any required resits, see below]

In Stage 4 [MEng, MMath final year], if a student fails one or more modules s/ he may still receive the credit and progress to classification provided that:

i. s/ he has failed [mark < 50 at Stage 4] no more than 40 credits, and
ii. no module mark falls below the threshold for compensation appropriate for its level [lowest permitted mark is 40], and
iii. the rounded credit-weighted mean [here, a straight mean of marks in Stage 4] over all modules taken in the Stage (including the failed module(s)) is at least 50.

1.ii. REASSESSMENT
[NOTE all CS modules except projects AND group projects (MEng) are likely to be deemed reassessable.]

Reassessment is an opportunity for students to redeem failure for the award of credit to meet progression or award requirements.

Reassessment in Stage 3 of bachelors programmes [final year of BSc or BEng, and BSc in CS/ Maths]:
Where a student fails modules and the award requirements for the stage cannot be met by application of the compensation rules, the student is entitled to reassessment in a maximum of 40 credits-worth of failed modules [mark < 40 at Stage 3].

If, following the application of the compensation rules, a student has not met the overall award requirements then they may be [also] reassessed in modules for which potentially compensatable marks have already been achieved. This will simply be an opportunity (not a requirement).

[In other words, if a student in Stage 3 gets two module marks of 25 and three of 38, the student would have to resit the two 25s, but may chose to resit some of the 38s as well to try to get over 40. Then, if the 25s can only be raised to the 30-39 range, the student does not fail by having too many 30-39 marks to compensate.]

Reassessment in integrated masters programmes [MEng, MMath]:
In Stages 3 and 4, where a student has met the required stage average [= weighted credit mean, as in integrated masters compensation rules above] for progression or award, reassessment opportunities will be limited to 40 credits. For Stage 3, where a student has not achieved the stage average for progression on the integrated masters programme, reassessment opportunities will only be provided for award of a bachelors degree.

A student may only be reassessed in a particular module on one occasion:
Where a student is not permitted a reassessment opportunity (i.e., cannot meet the specified award or progression requirements through reassessment as defined above) and there are no mitigating circumstances s/ he will be discontinued. S/ he may be eligible for a lower volume [award].

[So, the first hurdle is to pass 120 credits. If this has not happened, then compensation rules are applied. If these are not met, then reassessment rules are applied, including the progression hurdles where applicable.]

2. DEGREE CLASSIFICATION

For students who started their degree in or before October 2009 but enter Stage 3 in or after October 2012, and/ or Stage 4 in or after October 2013, the final calculation of the degree class will be as now (see Student Handbook). However, this will only apply when and if the compensation and reassessment criteria (all of point 1 above) are met. Clarification of how this will work will be available in due course.

3. STRUCTURAL CHANGES TO DEPARTMENT'S DEGREES

1.1.1 Stage 3 from October 2012 onwards

In October 2012, the Stage 3 structure of all degrees in Computer Science will comprise year-long 20-credit taught modules plus, where appropriate, a 40-credit project module. The range of subjects covered is unlikely to change significantly.

- BSc/ BEng finalists will take a 40-credit individual project (as now but with a revised submission date) and 4 taught modules.
- MEng Stage 3 students will take 6 taught modules.
- BSc CS/ Maths finalists will take one or two CS taught modules, and may take a 40-credit CS project.
- MMath Stage 3 students will probably take 3 CS taught modules.

1.1.2 Stage 4 from October 2011 onwards

Structural changes to Stage 4 (the final year of MEng and MMath degrees) will be in place from October 2011, because many modules are shared with the MSc degrees, and MScs have to conform to the new scheme from 2011. The most significant changes to the structure of Stage 4 will be:

- taught modules will commence in Autumn week 2
- the MEng group project (currently PRG) will run for the whole year
- there will be no CS Stage 4 teaching in the summer term, to make space for the individual project and group project
- students will not be allowed to take a significantly higher load in one term relative to the others

Appendix C: Building Codes

The letter(s) preceding the oblique stroke indicates the building as follows:

A/	Alcuin College	J/ or G/	James College
A/ EC	Economics Department	K/	King's Manor
A/ EW	Seebohm Rowntree East Wing	L/	Langwith College
A/ MS	Hull/ York Medical School	LMB/	Law & Management
A/ NC	National Science Learning Centre	MB/	Estates Services – Maintenance Building (Joiners)
A/ RC	Alcuin Research Centre	MG/	Estates Services – Grounds Depot
A/ TB	Seebohm Rowntree	MP/	Music Practice Rooms (Langwith)
AM/	Ambrose Street	MRC/	Music Research Centre
B/	Biology	MS/	Main Street
BH/	University Boathouse	MSD/	Market Square Development
BK/	Borthwick Institute for Archives	N/	New Building and 5/ 5A Main Street
C/	Chemistry	NS/	York Campus Nursery
CB/	Central Boiler House	O/	Sports Centre
CN/	Constantine House	P/	Physics/ Electronics
CP/	Cricket Pavilion	P/ A	Pavilion
CSE/	Computer Science	PO/	Physics Observatory
CT/	Catherine House / Jepson House	PS/	Psychology
D/	Derwent College	PV/	Provost Houses
DB/	Drama Barn	R/	J B Morrell Library
E/	Lyons Concert Hall / Music Dept.	RCH/	Ron Cooke Hub
EN/	Eden's Court	S/	Stables (Heslington Lane)
EX/	Grounds and External Works	SC/	Student Centre
F/	Central Hall	SL/	St Lawrence Court
FD/	65/ 67 Fulford Road	SP/	Spring Lane Housing
FR/	212/ 214 Fulford Road	SQ/	Squash Courts (Derwent)
FX/	Fairfax House	SR/	Scarcroft Road
G/	Goodricke College	TFTV/	Theatre, Film & Television
G/ AM	Roger Kirk Centre	V/	Vanbrugh College
GE/	Genesis	VC/	Vice-Chancellor's House
GNU/	Goodricke College Nucleus	W/	Wentworth College
GZ/	Gazebo	WA/	50-54 Walmgate
H/	Heslington Hall	WG/	Walled Garden
HC/	University Health Care	WS/	Workshop & Stores
HF/	Home Farm	X/ B	IT Services
HO/	Holgate Hall	X/ C	Security Centre
HRL/	Raymond Burton Library	X/ D	Environment
HX/	Halifax College	X/ E	Student Administration
I/	Sally Baldwin Buildings	Z/	Language Centre
IN/	Innovation Centre	Z/ A	Careers
IT/	IT Centre, York Science Park		