WELCOME TO SCIENCE IN THE COLLEGE OF SCIENCE AND ENGINEERING AT THE UNIVERSITY OF GLASGOW

GUIDE FOR NEW STUDENTS
SESSION 2016-17
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1. Personal message from the Chief Adviser of Studies for Science

I am delighted to welcome you as an undergraduate to Science in the University of Glasgow and hope you will find your time with us both productive and enjoyable. We are justly proud of our excellent record in both teaching and research across all science disciplines.

The range of degree programmes open to you is wide in terms of the subjects you can study, and varied in respect of the awards to which they can lead - BSc (Bachelor of Science), BSc Honours or MSci (Master in Science) degrees.

An advantage of our entry system is that it gives remarkable flexibility in your degree programme, and you will be contacted over the summer to arrange a meeting with an experienced senior adviser who will discuss the best combination of courses for you, based on your qualifications, your interests and your career aims.

The ideal combination of level 1 subjects will allow you to keep a range of possible degree options open until the end of level 2 – by which stage you will be much better prepared to make informed decisions about your degree and your career intentions.

So it is particularly important that you discuss your subject choices in advance with an experienced Senior Adviser, although you are encouraged to browse the options available to you, and enrol provisionally, using ‘My Requirements’ in ‘MyCampus’ (our student record system – separately, you will be sent details on how to access this system).

You will be assigned a permanent Adviser of Studies prior to Orientation/Freshers’ Week who will normally be in the subject area you wish to specialise in. You should arrange to your first meeting with your Adviser before the end of September. This allows us to check that you are settling in well at University, and are happy with the three courses you have chosen.

You will have regular meetings with your Adviser of Studies thereafter to chart your progress and to give you any help you may require, not only with your academic studies but also with finding your way around the support services and other aspects of university life.

University is not just about academic study, important as that is – you are strongly encouraged to take full advantage of the enormous range of recreational opportunities, and student clubs and societies, which are available to you as a member of the University of Glasgow community. You may, for example, be interested in travelling and broadening your experience, and should therefore consider the opportunities provided by our Study Abroad or International Exchange programmes.

These opportunities, and others, are valuable parts of the university experience. They are not just hugely important for your personal development, but are also highly valued by employers. The University of Glasgow puts considerable effort into developing and documenting these crucial ‘Graduate Attributes’ – you can find out more about these at: http://www.gla.ac.uk/students/attributes/

The important thing to remember is that a degree in science from this University will equip you well for the future whatever you do on completion of your studies.

I hope you enjoy your time at the University of Glasgow, as I am sure you will, and would encourage you to use the advisory service whenever you need it. I look forward to your arrival and wish you every success with your studies.

Good luck!

Dr Peter H. Sneddon
Chief Adviser of Studies for Science, College of Science and Engineering
2. Session dates for academic session 2016-17
Details of the session dates can be found on the Senate Office website at
http://www.gla.ac.uk/services/senateoffice/sessiondates

3. Degree structure within science
A full year of study normally consists of courses amounting to 120 credits. In first year, subjects normally consist of

- One 40 credit course running through Semesters 1 and 2
- Two 20 credit courses, one running in each Semester
- Two 20 credit courses, each running through Semesters 1 and 2

In level 1, full-time students must normally enrol for Science courses totalling 80 credits.

Within Science, we offer the following degrees:

- MSci
- BSc Honours
- BSc in a Designated Subject

The BSc Honours degree is a four-year degree. Entry to honours courses comes at the start of third year and admission is dependent on achievement in all courses and particularly the chosen subject area over years one and two. Honours degrees are awarded on the basis of results achieved over the third and fourth years and are classified as first, upper or lower second or third class. Honours degrees can be awarded in a single subject or in an approved combination of two subjects.

The MSci degree offers an opportunity for more advanced and intensive study in particular subjects, or approved combinations, over a five-year programme. Some MSci courses involve a year spent on work placement or in a European university working on a research project after the third year. The placement is assessed and contributes to the final award. Entry to an MSci, like entry to BSc Honours, comes at the start of third year and the degree is classified like the BSc Honours degree. Admission is competitive and open only to the most able students.

Advanced level entry to some degree programmes is available for highly qualified applicants who meet the Advanced Higher and A level admission grades specified in the prospectus and allow the BSc Honours degree to be completed in 3 years and the MSci in 4.

The BSc Designated degree requires in-depth study of a subject to third year. A designated degree can be awarded in a single subject or in an approved combination of two subjects. This degree can be awarded with merit or distinction, depending on your grades.

For further information on all of the above please contact science-chief-adviser@glasgow.ac.uk. After you begin your studies you can discuss in detail the most appropriate route for you with your own Adviser, whom you will meet early in the first semester and then regularly thereafter.

4. Planning your first year curriculum
Some students come to university with precise intentions. Others will be less certain and will wish to keep a number of options open. This is perfectly possible with our flexible system of entry to Science. Whatever your situation you should discuss your course choices in advance with a Senior Adviser. We will attempt to contact you over the summer to organise such a discussion; alternatively you should contact science-chief-adviser@glasgow.ac.uk.
In most cases a first year curriculum is the possible foundation of more than one honours programme, and usually a choice of honours programmes will remain open until the end of second year. Consequently you will have the opportunity of reassessing your choice in the light of one or two years of university study.

The programme to which you were admitted through UCAS will show in ‘MyCampus’. This is merely a method of identifying appropriate subjects for you to study in first year. It means that the compulsory courses will be shown and you may have to choose the remaining 40 or, perhaps, 80 credits. (In a few cases you will have no choice!) It is important that you use ‘My Requirements’ in MyCampus as this will guide you through both your compulsory courses, and the wide range of optional courses that you can select (provided it is possible to timetable these).

Normally the first year curriculum for science students consists of three level-1 subjects. All level-1 courses are worth 20 or 40 credits and your curriculum should normally add up to 120 credits. These three subjects can all be Science subjects (a total of 80 credits of Science is required) but it is possible to include one non-science subject out of general interest.

Some courses do not lead to a degree and therefore only one should be included in a first year curriculum.

Most students will be content to study three Science subjects. If you would like to study a subject in another area, details of courses are available in MyCampus (you will be guided by ‘My Requirements’).

Here are a few notes of general guidance:

i. Normally you must include 40 credits of your intending honours subject in your starting curriculum. The sole exception to this rule is statistics; the prerequisite for statistics-2 is mathematics, not statistics, at level 1, although Statistics 1Y/1Z are strongly recommended.

ii. At least one subject will be prescribed by your intended honours degree but in some cases two, or exceptionally three, subjects are necessities. For example, for mathematics must be includes for students taking degrees in astronomy, electronic & software engineering, physics or statistics. Mathematics is also strong recommended for students taking computing science and software engineering.

iii. Science Fundamentals 1X/1Y are intended primarily for those who have not achieved a previous qualification in chemistry at Higher, A-level or equivalent. It may also be appropriate for those with a grade C in Higher or D at A-level, particularly at the second attempt.

iv. If you think that you might want to take part in the ERASMUS exchange programme to an EU university (in your second or third year), then you may take an appropriate language from the Arts list.

v. In most cases two subjects will almost select themselves, but the choice of the third subject may prove difficult. If you have no clear idea what it should be, then here are some common-sense rules.
   a. It may not be sensible to attempt to study a subject which you do not like, or which you know yourself to be very weak in, just because it is familiar and seems suitable for the rest of your curriculum.
   b. If a subject new to you seems attractive and is one that you might wish to study, please consult the online course catalogue in ‘MyCampus’ for further information (using ‘Browse Catalogue’).

On completion of a course, a grade is awarded with A1 being the highest and H the lowest. Most courses have an element of assessed coursework that may be based on tutorials, laboratory reports, essays, class tests and even class exams. Poor performance in exams in December or April/May (i.e. grades E, F, G or H) may be recovered by taking the resit exams in August. **The important thing to understand is that there is not normally a resit for laboratory assessment. Although you may be allowed a second attempt at a degree exam, in coursework the mark achieved at the first attempt normally stands. Failure to achieve a**
reasonable result on the first occasion can lead to a poor overall grade that cannot be greatly improved by taking a resit examination. No matter how well you actually do in the resit exam, even if MyCampus shows A1 as the grade, the grade points awarded will be no higher than 9 per credit (equivalent to a grade D3).

5. A typical first year science timetable
In first year, your 40 credit subjects will typically require attendance for roughly five to seven hours per week. Attendance will be made up of lectures, laboratories and, maybe, workshops or tutorials. Your personal timetable will be available to you in ‘MyCampus’ once you select courses.

<table>
<thead>
<tr>
<th>Lectures</th>
<th>Each subject usually has between 3 and 5 one-hour lectures per week.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratories</td>
<td>You can expect to attend one 3-hour practical class every week for most subjects.</td>
</tr>
<tr>
<td>Workshops</td>
<td>As an alternative (or in addition) to laboratories, some subjects require attendance at workshops, usually one hour.</td>
</tr>
<tr>
<td>Tutorials</td>
<td>In some subjects there will normally be one 1-hour tutorial per week. Tutorials provide an opportunity for you to meet in smaller groups (up to ten or twelve) with a member of staff.</td>
</tr>
</tbody>
</table>

This means that you will have specific commitments for approximately 20 hours every week. In order to keep up with your work it is extremely important that you attend all of your lectures, laboratories and tutorials. **The remaining time is NOT entirely free. You should aim to spend a further 15 to 20 hours or so in private study – six hours per subject.** When you are not in a scheduled class, you are likely to be undertaking private study to go over lecture notes, read the course textbook, or to prepare assignments which will be handed in and will often contribute to your final grade for the particular course. Coursework can account for as much as 50% of the final assessment in some subjects. Treat your studies as you would paid employment and aim to ‘work’ a 35-40 hour week.

Lecture and lab hours for all level-1 science subjects are included in the details of class selection. When you select courses in ‘MyCampus’ you will then select lectures and laboratories. Try to select all your lectures in the morning and labs in the afternoon – or vice versa.

Within Science, we make every effort to accommodate your choice of subjects within the timetable. For this reason, and because of the large number of students in some courses, lectures and laboratories may be repeated throughout the day and week to ensure that you are able to attend all essential elements of your three subjects. Not all chemistry students will have a 1000 lecture, for example, since it is repeated at 1500.

In addition to timetabled classes on campus, in some subjects (archaeology, earth science and geography) there may be occasional field trips at weekends.

Please note that some lectures take place at 1700. We regard the normal working day as 0900 to 1800. If you have special requirements that prevent your attendance after 1700, you should ensure you choose class times that give you the flexibility you require. Lectures start at 5 minutes after the hour and stop at 5 minutes to the hour. If you have consecutive lectures, this allows you 10 minutes to get to your next lecture that may be in a different building.
6. Assessing your progress

In assessing course performance, students are awarded grades, which carry a specified number of grade points as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Descriptor</th>
<th>Grade points (per credit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>Excellent</td>
<td>22</td>
</tr>
<tr>
<td>A2</td>
<td>Excellent</td>
<td>21</td>
</tr>
<tr>
<td>A3</td>
<td>Excellent</td>
<td>20</td>
</tr>
<tr>
<td>A4</td>
<td>Excellent</td>
<td>19</td>
</tr>
<tr>
<td>A5</td>
<td>Excellent</td>
<td>18</td>
</tr>
<tr>
<td>B1</td>
<td>Very Good</td>
<td>17</td>
</tr>
<tr>
<td>B2</td>
<td>Very Good</td>
<td>16</td>
</tr>
<tr>
<td>B3</td>
<td>Very Good</td>
<td>15</td>
</tr>
<tr>
<td>C1</td>
<td>Good</td>
<td>14</td>
</tr>
<tr>
<td>C2</td>
<td>Good</td>
<td>13</td>
</tr>
<tr>
<td>C3</td>
<td>Good</td>
<td>12</td>
</tr>
<tr>
<td>D1</td>
<td>Satisfactory</td>
<td>11</td>
</tr>
<tr>
<td>D2</td>
<td>Satisfactory</td>
<td>10</td>
</tr>
<tr>
<td>D3</td>
<td>Satisfactory</td>
<td>9</td>
</tr>
<tr>
<td>E1</td>
<td>Weak</td>
<td>8</td>
</tr>
<tr>
<td>E2</td>
<td>Weak</td>
<td>7</td>
</tr>
<tr>
<td>E3</td>
<td>Weak</td>
<td>6</td>
</tr>
<tr>
<td>F1</td>
<td>Poor</td>
<td>5</td>
</tr>
<tr>
<td>F2</td>
<td>Poor</td>
<td>4</td>
</tr>
<tr>
<td>F3</td>
<td>Poor</td>
<td>3</td>
</tr>
<tr>
<td>G1</td>
<td>Very Poor</td>
<td>2</td>
</tr>
<tr>
<td>G2</td>
<td>Very Poor</td>
<td>1</td>
</tr>
<tr>
<td>H</td>
<td>Credit Awarded</td>
<td>0</td>
</tr>
<tr>
<td>CR</td>
<td>Credit Refused</td>
<td>0</td>
</tr>
<tr>
<td>CW</td>
<td>Credit Withheld</td>
<td>0</td>
</tr>
<tr>
<td>07</td>
<td>Result deferred</td>
<td>0</td>
</tr>
</tbody>
</table>

In assessing progress towards your degree, both the number of credits gained from each course completed and the grade points accumulated will be taken into account. Your Grade Point Average (GPA) and the number of your credits at grade D3 or better are critical in determining your achievement.

The GPA is calculated by multiplying the number of credits gained from each course (usually 20 or 40 in first year) by the grade points awarded for that course, totalling the results and dividing this by your total number of credits.

Thus a student who has taken the following courses and gained the grades specified:

- Physics 1 (40 credits) B3 (15 grade points) $40 \times 15 = 600$ grade points
- Mathematics 1R (20 credits) C2 (13 grade points) $20 \times 13 = 260$ grade points
- Mathematics 1S (20 credits) B1 (17 grade points) $20 \times 17 = 340$ grade points
- Chemistry (40 credits) B2 (16 grade points) $40 \times 16 = 640$ grade points

Total = 1840 grade points

will have a GPA of 15.33 on 120 credits, calculated as follows $\frac{1840}{120} = 15.33$.

We do not have a pass/fail system. The grade required to allow you to take the next year of a course varies from B to D depending on the course.

For admission to a BSc honours programme at the end of second year, you are required to have 240 credits at a GPA of 9. At least 200 of these credits must be at grade D3. You must have at least 40 credits (but more usually 60) of level-2 courses in the intending honours subject at a minimum grade of C3.
Please note that some subjects may require a minimum grade of B3 for entry. This is at the discretion of the Head of School.

Admission to an MSci requires 240 credits with a GPA of 12. At least 60 of the credits must be at level-2 at grade B3.

If you have more than 240 credits, then the best 240 are used.

If you opt for a 3-year degree, you should achieve 240 credits with a GPA of at least 10 by the end of second year. This corresponds to an average of grade D2 in all courses throughout first and second year.

Minimum Progress Requirements
To allow you to continue as a full time student, you must meet the following minimum requirements:

<table>
<thead>
<tr>
<th>After 1 year</th>
<th>80 credits with a GPA of at least 8 over the best 80 credits, and with at least 60 credits at D3 or better.</th>
</tr>
</thead>
<tbody>
<tr>
<td>After 2 years</td>
<td>160 credits with a GPA of at least 8 over the best 160 credits, and with at least 120 credits at D3 or better; must have fulfilled level 1 requirements that allow entry to level 2 Science courses totalling 60 credits.</td>
</tr>
<tr>
<td>After 3 years</td>
<td>240 credits with a GPA of at least 9 over the best 240 credits, and with at least 160 credits at D3 or better; at least 60 credits must be at level 2 or above.</td>
</tr>
<tr>
<td>After 4 years</td>
<td>Must be qualified for entry to BSc in a Designated Subject or BSc Honours Programme.</td>
</tr>
</tbody>
</table>

(Note: Achieving only this minimal standard will not guarantee progression to the next stage of your degree programme.)

Your Adviser of Studies will guide you on all of these matters.)
7. Booklist for level 1 entrants

Archaeology


Selected titles in the Making of Scotland series, Birlinn, Edinburgh.


Astronomy


Chemistry

Chemistry: Human Activity, Chemical Reactivity; Mahaffy, Tasker, Bucat,Kotz, Weaver, Treichel, McMurry (2010)

Computing Science 1

CS1P, CS1Q, PPCS1 Details at enrolment


Earth Science


or


1Y course only:

Electronic Engineering

1X


All above strongly recommended as background reading but not an essential purchase.

1Y


All above strongly recommended as background reading but not an essential purchase.

Employability

Full manual will be provided.

Exploring the Cosmos

1X/1Y

The Cosmic Perspective; Bennett, Donahue, Schneider and Voit (5th Edition) published by Pearson Addison Wesley

Geography

These publications provide a good background and overview of materials covered in the course and will be useful throughout your studies in Geography.

The following publications are linked to WebAssign®, an online instructional system that is used throughout the course. At the first meeting of the class, details will be given about bundles that are available with special price reductions. These publications will also be useful for Level-2 Mathematics.


Not linked to WebAssign® but giving good coverage of Mathematics 1X and 1Y material:


Details at enrolment
8. Support and advice
We obviously hope that your experience of university life will be positive and rewarding. There may, though, initially be occasions when the reality is not as you had anticipated. If you find yourself in this position, please do not make hasty decisions without consulting us first. Sometimes the simplest solutions can be offered to apparently insurmountable difficulties once you have explored the situation with someone who has the experience and knowledge to offer advice.

We would always like an opportunity to discuss your concerns. In addition to consulting your adviser, you can find out about the many other student support services available to you at www.gla.ac.uk/students/.

Adviser Meetings
Please do not overlook requests to make an appointment with your Adviser. You will be asked to make contact with your Adviser of Studies by 30 September. Advisers are very experienced in the art of identifying problems before students are even aware of their existence and are adept at finding possible solutions. Meetings take place at least twice per year and may take only 10-15 minutes but they are an essential part of university life. Please give your adviser an opportunity to get to know you so that you can make use of this valuable source of help should the need arise.

Common worries affecting students might include:

- **Wrong choice of course**
  If you feel you have made the wrong choice of subjects, do not withdraw without discussing options with your adviser; either your own Adviser, or the Chief Adviser. You may be judging matters too early without being fully aware of how your courses develop. Or you may indeed have identified an alternative, more attractive degree. In some cases, it is easier to transfer after even partial completion of your existing curriculum than to give up entirely and achieve nothing from your first year of undergraduate study.

  If you are experiencing difficulty with study habits, you may find it helpful to consult one of our advisers in the Student Learning Service: www.gla.ac.uk/sls/.

- **Finance**
  Managing on a student loan is never easy and many students have to consider carefully how to balance their budget. If you find yourself with serious financial problems, please consult your adviser who may be able to direct you towards possible sources of help in the university such as the HEI hardship fund or the University’s hardship fund. Details of these are available from the Fraser Building: www.gla.ac.uk/students/.

- **Part-time employment**
  Quite reasonably, students often choose to work part-time to supplement their income. There is a recommended maximum of 12 hours work per week for students during the academic year and recent surveys have shown that working excessive hours adversely affects student health and academic performance.

- **Accommodation**
  Please be aware of the details of any contract you are asked to sign for accommodation. You may be committed to a year-long lease and, if your arrangements involve sharing with other students, as signatory to the contract, you may find yourself liable for continued payments on behalf of a flatmate who has found alternative accommodation. University residences are normally let for a full academic year and the lease is normally legally binding for the full period.