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1. Introduction

Welcome to your postgraduate studies at the University of Glasgow. We hope you will enjoy your stay in Scotland and gain a great deal from your studies and time in Glasgow. Most of you will have studied as undergraduates, but for some it may be some time since you were at university. Taught postgraduate programmes are very intensive, so they will demand a lot of your time. However, you should also plan to take advantage of the other activities the University and city have to offer, and also make sure you take time to look after yourself!

This handbook covers the essential information about the postgraduate taught programmes offered by the School of Geographical & Earth Sciences, University of Glasgow. It covers the programmes in:

- Geoinformation Technology & Cartography
- Geomatics & Management (see also handbook on Business School programmes)
- Geospatial & Mapping Sciences
- Land & Hydrographic Surveying
- Land & Hydrographic Surveying with Work Placement
- Sustainable Water Environments

The programme handbook is primarily intended to help guide students through their programme of study, setting out what is in the programmes and the rules and regulations that govern them. University regulations are published in the University Calendar. Key extracts are included in the handbook, but full and definitive versions can be accessed on the University website.

Postgraduate programmes are governed by the Regulations for Taught Masters Degrees (see section 12 below). Further details of individual programmes are given in the Programme Specification, which may override the generic regulations in certain specific areas (such as grades required for certain courses).

Each programme is made up of a number of courses, many of which are common to more than one programme. Assessment of individual courses and how these are combined for the programme is governed by the University Code of Assessment. The School also has its own regulations covering coursework submissions. Some programmes include courses delivered by other schools, who may have their own procedures for coursework submission.

Please take some time to read through this handbook as it contains very important information about your studies. If you have any questions you should raise them with the appropriate Programme Leader.

The handbook falls roughly into sections, starting with information about finding your way around. Do make sure you read and understand it, including the sections on plagiarism, absence/good cause reporting and what you need to progress through your programme. It is no good saying you didn’t know something after you run into a problem!
2. Who’s who?

Dr Brian Barrett  Lecturer / Programme Leader SWE (Semester 2)  room 504
Dr Adrian Bass  Lecturer  room 402a
Dr David Forrest  Senior Lecturer / GES PGT Convener  room 400
  Programme Leader GT&C and Geo & Man
Dr Martin Hurst  Lecturer  room 404
Mr William Kelly  Lecturer  room 509a
Dr Larissa Naylor  Reader  room 408
Dr Elizabeth Petrie  Lecturer / Programme Leader G&MS, L&HS  room 515
Dr Rhi Thomas  Lecturer  room 519
Dr Richard Williams  Lecturer / Programme Leader SWE (Semester 1)  room 510

Prof Martin Lee  GES Head of School  room 317
Dr Simon Naylor  GES Head of Learning & Teaching  room 513
Mrs Anne Dunlop  GES Teaching Administrator / Adviser of Studies  room 307
Prof Deborah Dixon  Convenor of GES Graduate School  room 509
Mrs Yvonne Finlayson  GES Technical Unit Manager  room 401
Mr Gary Tait  IT Support  room 203
Mr Kenny Roberts  Field Technician (GPS + Laser Scanning)  room 205
Mrs Nicola Mills-Wierda  PGT Teaching and Support Secretary  room 316

Prof John Davies  College Dean of Learning & Teaching
Prof Stefan Hild  College Dean of Graduate Studies
Mrs Pat Duncan  College Head of Student Administration  Boyd Orr Building

3. School Facilities, etc.

The School provides basic facilities for all taught postgraduate students, including study space. Most classes will be held in the East Quadrangle, but some classes, especially lectures with larger numbers, may be held elsewhere on campus.

Building Access - Key
All PGs are entrusted with a Master key to the building’s external doors and the Seminar Room (502). A deposit of £10 is required when the keys are issued and this will be refunded when keys are returned or exchanged. Lost keys should be reported to the School Office and replacements will have to be paid for.

Office accommodation
There is shared access to rooms 101 and 102 for all taught postgraduates. Depending on total numbers, desks and PCs will usually need to be shared. Bookshelves and filing cabinet space is provided.

Computer provision
Disk space on a University server is provided as required for the programme, although this is limited. Generally, laboratory classes will use the teaching clusters in rooms 202 & 204. These computers may be used at other times when not in use by scheduled classes. PCs in
rooms 101 and 102 are available on a shared use basis. Printing facilities are available at various locations throughout the School, accessed via the network. Students are allocated a modest allowance, after which printing must be paid for. Students will have university student e-mail addresses which will be used by staff to contact students where necessary. Staff are advised not to contact students using personal e-mail addresses.

Access to School computer facilities will cease 1 week after final examination/submission of thesis. All files will be deleted from University PCs and servers after 3 months.

Photocopying
There are card operated photocopiers on floor 3 of the University Library. School printer/copiers may be used for photocopying and will be automatically charged to you your printing account. There are also printers/copiers in the Library. Please note that UK Copyright law restricts the amount of copying permitted to a single chapter from a book or one article from a journal; exceeding these limits exposes both the student and the School to prosecution.

Mail
A shared mailbox is provided in room 502 for incoming mail. This should not be used for important or confidential correspondence. Outgoing internal mail can be deposited in the School Office (room 316). Stamped external mail can also be left there for pick-up.

Telephone
School telephones can be used for internal calls and emergencies. Incoming calls may be received. In emergencies ring 4444.

SECURITY
The School is difficult to secure because of the relatively large number of external doors. Rooms must be kept locked when vacant even if you are only leaving for a short while, and on no account should you leave purses, wallets or other valuables lying around. Access codes for locked doors (such as the IT labs) can be collected from the School Office—do not pass these codes on to people who are not members of the School. The doors of the School are locked at 5pm and care must be taken to keep them locked after that. If you are working in the School after regular hours, you must sign the “out of hours” book outside Room 201. In case of getting locked in after hours or other problems, ring the main Gatehouse, ext.4282. In emergencies ring ext.4444.

Safety
• Smoking is not permitted in the School. Smoking will set off the smoke detectors;
• Note the exits from your rooms, the location of fire alarms and fire-extinguishers in the School. If you hear the fire alarm, immediately collect your coat and valuables, close the door of the room after you and proceed to the assembly point at the South Front Flagpole;
• All accidents should be reported to Mrs Yvonne Finlayson: room 401, tel 2325.
• First aid equipment is kept in the School Office (room 316) and in the Physical Lab (room 206). Several staff have first aid training and notices are posted around the building. For medical emergencies including severe allergic reactions, chest pain, breathing problems or people who have collapsed go to The Queen Elizabeth University Hospital, Govan.
• In emergencies, dial **4444**, and give the facts. If you call an ambulance, also call the gatehouse **4282** and let them know so they can direct the ambulance to the School.
• Care must be taken to switch off all computers after work.

**Swan@GES**
SWAN@GES is the local name for a programme of activity linked to the UK ECU’s **Athena SWAN Charter** (http://www.ecu.ac.uk/equality-charters/athena-swan/). This was established in 2005 to encourage the advance of the careers of women in higher education and research. The Charter covers all STEMM subjects, arts, humanities, social sciences and professional and support roles. The charter in recent times has encouraged work undertaken to address gender equality more broadly, and not just barriers to progression that affect women.

Locally, SWAN@GES operates via a committee of 18 people (from Undergraduate to Professor to Administrator), spanning all areas of GES. We were awarded Silver status in 2017.

We encourage PGT and PGR student to attend events and become involved. For more information, please see our website: www.swanges.org.uk

**Student Representation and Feedback**
The School and the University take student representation and feedback from students seriously and provide many opportunities for you to comment on your programme and courses, with the aim of resolving any immediate problems and improving the experience for both you and future students. Your active and thoughtful participation is encouraged.

There will be one representative for all taught postgraduates at School Staff Meetings. There will be one representative for all taught postgraduates on the School Staff/Student Council. There will be one representative for each programme on the GES Graduate School Committee.

A feedback questionnaire will be circulated near the end of each course to assess your impressions of the course and how it was taught. We aim to provide a response to this feedback within 3 weeks of the survey closing.

If there are issues with a course, please raise them with the course leader as soon as possible, or with the Programme Leader for your programme. We can only react if we know there are problems.
4. Programme structure and important dates

Programme structure
The University operates a semester system, with 2 main teaching semesters. Each semester has classes delivered over 11 weeks, followed by time for revision and examinations. MSc students also complete their projects over the summer period from June to August.

Most courses run over a full semester, but many PGT courses are delivered in shorter 5-6 week blocks. To facilitate part-time study, most GES PGT courses have all their classes on one day of the week, but some courses may be organised differently, or numbers may require alternative practical sessions on a different day.

Generally during semester full-time students can expect to attend classes 3 days per week during the taught part of the programme. Part-time students normally have classes 1 or 2 days per week.

The general pattern for GES PGT programmes is shown below.

Semester 1:
Induction week
**Semester 1A** - 5 weeks of classes
Study week
  - Geomatics students: no formal lectures but practical sessions or visits may be scheduled
  - SWE students: monitoring water environments field course: 22 to 26 October 2018

**Semester 1B** - 5 weeks of classes
Study/revision week – no formal lectures
One week of examinations
New Year break: 3 weeks

Semester 2:
**Semester 2A** - 5 weeks of classes
1 study week – no formal lectures

**Semester 2B** - 5 weeks of classes
1 Study/revision week – no formal lectures
Study break / revision period – 1st April – 20th April
but this includes:
  - 1 week Field class (G&MS & L&HS students) 1st - 6th April 2019
  - GIS event tbc(for GT&C students)
  - Exam week – 23rd – 26th April
MSc Project preparation – 29th April – 8th May 2019

**Summer**: MSc project ~13 weeks.
## Important dates

| Prog- | Time- |
| Programme | table Week | Week |
| Week | |
| Mon 10th Sept | 0 | 5 | Induction begins |
| W/b 17th Sept | 1 | 6 | Start of semester 1A – 5 weeks of classes |
| W/b 22nd Oct | 6 | 11 | Study week |
| 22-26 Oct | 6-11 | Monitoring water environments field class (SWE) |
| W/b 29th Oct | 7 | 12 | Start of Semester 1B – 5 weeks of classes |
| W/b 3rd Dec | 12 | 17 | Study week |
| W/b 10th Dec | 13 | 18 | Examination week |
| 14-16 | 19-21 | Christmas/New Year break |
| Mon 7th Jan | 17 | 22 | Start of Semester 2A – 5 weeks of classes |
| W/b 11th Feb | 22 | 27 | Study week |
| Mon 18th Feb | 23 | 28 | Start of Semester 2B – 5 weeks of classes |
| Fri 22nd Mar | 27 | 32 | End of formal classes |
| W/b 25th Mar | 28 | 33 | Study Week |
| Mon 1st Apr- Sat 6th April | 29 | 34 | Arden tinny field class Sat - Thurs (GMS) |
| Tbc | | | GIS event tbc |
| W/b 22nd April | 32 | 37 | Examination week |
| W/b 29th April | 33 | 38 | MSc Project proposal preparation |
| W/b 6th May | 34 | 39 | MSc Project proposal presentations and submission |
| 9th-21st May | 34-35 | Holiday period (Provisional) |
| 23rd-24th May | 35 | 41 | Examination Board (subject to confirmation) |
| W/b 27th May | 37 | 42 | MSc Projects starts |
| Mon 24th June | 41 | 46 | MSc project progress report |
| Mon 22nd July | 45 | 50 | MSc project progress report |
| Mon 29th July | 46 | 51 | Resits |
| Mon 5th Aug | 47 | 52 | Resits |
| Mon 19th Aug | 49-19-2 | MSc project submission |
| Mon 26th Aug | 50 | 19-3 | MSc data/product submission |
5. Teaching & Learning – helpful tips

Starting as a postgraduate is a new venture whether you have come straight from university or have been working for some time. It can take a while to adapt to a new lifestyle and different expectations. Essentially your learning is your responsibility and it is up to you to be motivated and pro-active. However, the School aims to present material in the most effective ways to enable students to gain competence in the relevant concepts, techniques and skills, as well as having a sound basic knowledge of their subject matter.

A variety of teaching methods are used, ranging from small group teaching to practical work to lectures.

Lectures
These form the basis of many courses. They are good for communicating key ideas, concepts and methods on each area of study. If you are not used to taking notes, try to develop a style of writing down the important points and take note of any references provided. Where appropriate, lectures are illustrated by the use of PowerPoint and similar handouts may be provided. Generally copies of these presentations can also be found on Moodle (see below) – usually in advance of the lecture.

Lectures are supported by text books, specific readings or more general reading-lists for you to follow up the ideas and concepts for yourself. There is usually an opportunity to ask questions after the lecture, so make the most of that opportunity so that you have things clear in your own mind.

It is important to recognise that lectures can only provide an introduction to most topics and that you are expected to develop greater knowledge and understanding by further reading. Simply restating lecture material in examinations is unlikely to result in the highest grades.

Practical Classes (Labs)
Labs are where you develop many of the practical skills and methods needed in the profession. At each lab there will be a member of Academic Staff to assist and answer any questions you may have, although you will often be expected to complete work outside the formal timetabled periods.

The majority of materials need for practical work will be provided, but you should ensure you have appropriate pens, pencils, rulers, etc. A calculator may also be useful for many exercises. Staff can advise on appropriate equipment.

Many of the laboratories involve the use of computers. Specialist software is provided on the School computers in the teaching labs and in the MSc study rooms. As a general rule you are not permitted to copy any software from these machines and generally software licences are such that students are not permitted to have copies on their own PC, although there are exceptions. We are increasingly using Open Source software that you can
download yourself. If you wish to purchase a computer to aid in your studies then ask a member of staff for advice on specifications and what specialist software may be available.

Many of the surveying practicals are held out of doors, so you should come prepared for cold and wet weather. A high visibility safety vest should be worn while surveying.

**Tutorials**
These give you the opportunity to discuss and debate ideas in small groups. You will get as much out of a tutorial as you are prepared to put in. As one of the aims of tutorials is to develop your oral presentation skills, it is important that you contribute to tutorial discussions as fully as possible. Don’t be afraid to express an opinion - nobody is going to think you foolish.

**Seminars**
In a seminar, students deliver a prepared presentation on a chosen topic, or their independent work. The presentation is then followed by a discussion on the issues raised by the presentation, and all students are expected to contribute. As with tutorials, you will get out of a seminar as much as you are prepared to put in and importantly, it will help you to develop your communication skills. Our programme also include seminars delivered by contributors from industry, where you are encouraged to engage in discussion following their presentation.

**Fieldwork**
Fieldwork is a very important element of many programmes in the School. The major costs of fieldwork are included in the programme fees. Fieldwork not only enables you to develop specific skills of observation, recording and data analysis, it also provides opportunities for teamwork, initiative and the development of communication skills.

**On-line Learning**
The majority of the programme uses traditional learning & teaching methods, but an on-line environment is used to support this. The University uses a web-based resource called **Moodle** which can be accessed from your MyGlasgow student portal. There is a password protected Moodle site covering the postgraduate programmes, with sections for each individual course. Copies of handouts, exercises and other supporting materials can be accessed through Moodle. There are also Q&A forums and other forms of communication available. The majority of assessments are submitted electronically via Moodle. Some course may make further use of on-line learning in various forms.
6. Assessment
Like teaching methods, a number of assessment methods are used. Assessment is used to
determine what you’ve learned – something the University needs to know so that it can
monitor progress and make an appropriate award at the end of your programme. At the
same time, feedback is essential to improving your learning and, for the assessment to make
sense, you need to know what you are expected to learn. For this reason all courses have
intended learning outcomes (ILOs) and it’s important that you check these out in your
course handbook.

All courses include continuous assessment (coursework); most also include an end of course
examination. The weight of individual assessments is clearly shown in each course
description. Assessment is governed by the University Code of Assessment for
Undergraduate and Taught Postgraduate Programmes.

All coursework and exams are assessed anonymously as far as is practical. Do not include
your name in any submissions, only your student number.

The university assessment guidelines and scheme of grades is given below in Section 7.
Essentially, all work is assessed on a 22 point scale, although generally outcomes will be
reported by grades (A1, B3, etc.). The University Code of Assessment gives general grade
related criteria (GRC). For some types of work, or particular tasks, more specific grade
related criteria may be used. These will be found on Moodle.

Please also note the University guidelines on plagiarism (see Section 9). Plagiarism, whether
accidental or deliberate, is taken extremely seriously, and can have very serious
consequences. Make sure you understand how to avoid plagiarism, and if you are at all
unsure, PLEASE speak to staff – they will be happy to help!

Coursework
Assessed coursework generally requires the submission of one or more pieces of your work,
such as an essay, a report, a map, some computer output, or a computation. Occasionally
assessments may be based on oral presentations.

A distinction is made between formative assessment, where the primary aim is for you to
gain experience and get feedback and summative assessment which contributes to the
overall grade of the course. Formative assessment does not contribute to the final grade,
but it may be necessary to submit it to complete the course.

Summative assessments are those that contribute to the final grade for a course. Generally
these will be commented upon to provide feedback. Any grades given on your work must be
considered provisional until verified by the Board of Examiners, which normally meets in
May. All summative coursework must be available to the Board; if not the grades may not
be confirmed, resulting in an incomplete course.

Submission of Coursework
It is important that your work is properly identified and that files have appropriate names.
All documents (electronic and hard-copy) must be identified by your student number,
ideally on every page of the submission (you can use a running header in Word). You must not put your name on any coursework.

The majority of coursework will be submitted electronically via Moodle. File names must clearly identify both you and the piece of work, so ideally take the form studentnumber_title.file_type – eg. 1234567_cartoessay.doc or 1234567_GISreport.pdf. Unless you are told otherwise, submission will normally be Word .doc or .docx format, or .pdf. As a general principle, avoid formats that require specialist software to open. **Submissions by e-mail to staff members are not permitted.**

The University operates a strict coursework submission regime. Late submissions will be penalised (see section 7 below). A timetable for coursework submission is included in this handbook. Generally submission will be using the Moodle facility and will normally be due **by 9am on the day the course is taught**. Any alternative submission details will be clearly communicated in the course material. All coursework submitted using Moodle will contain a declaration of originality. Time of submission will be recorded automatically and late submissions will be penalised using the standard University scheme. Other forms of submission may require a printed, signed declaration of originality which will be detached prior to the work being assessed.

Any case for consideration of just cause for late submissions must be made within 7 days of returning to study.

A provisional timetable for coursework submissions for each programme can be found on Moodle.

**Style guide for coursework submissions**

Some assessments may specify a particular format, but the general format of submissions, including information about fonts, margins, line-spacing, etc., will be discussed during Induction and Study Skills sessions and guidelines are available on Moodle. Guidance on appropriate referencing style is also available on Moodle.

**Failure to submit work neatly in an appropriate format may result in marks being deducted.**

**Examinations**

Exams are part of life as a student - a necessary evil, some might say. On the positive side, they provide a chance for you to show what you know and understand. Good exam preparation involves steady working habits throughout the programme, not just a last minute attempt to cram as much information as possible. Exams test your ability to think and write clearly under pressure, a useful skill for many situations in later life. You need to find working methods which suit you, and everyone develops their own method. However, there are some tips. Investment in a highlighter pen, for example, may enable you to select key words, technical terms and topic headings from your notes, and thus make learning easier later. Planning your time carefully and structuring your learning, so that you have time to take breaks, is important for good revision. Make sure that you have read around your subject and are familiar with the key references and theory. Keep up to date with your
subject. Do not forget that items in the news may sometimes provide relevant examples for your answers. It is often a good idea to practice drawing diagrams for use in exam answers. These save a lot of time and can often make a point more forcefully than several paragraphs of text. Where included they should be suitably labelled and discussed by text.

Previous recent papers are available on-line through the MyGlasgow Student portal – click the Past Exam Papers link. Past papers and/or example questions may also be available in the course Moodle. It is worth looking at these to see what types of question are set. However, a health warning’ - do not try to ‘spot’ questions which are likely to come up this year, on the very rocky basis that they did not come up last year or the year before.

When in the exam, do not forget the obvious - read the instructions! Make sure you know how many questions you need to answer, how many sections from which these must be drawn (if relevant) and plan your time accordingly. Taking time at the beginning of an exam to plan your answers reaps its rewards later. Write clearly and succinctly, including, where relevant, maps and diagrams. Most important of all, however, please ensure that you answer the question set on the exam paper, and NOT the question you wish had come up! Be prepared to mould your material to answer the question - do NOT simply re-hash lecture-notes. Also, ensure that you keep to the time schedule for the examination - do not leave 10 minutes for the last question when you have been given 30 minutes!

Board of Examiners and confirmation of grades
All courses and results are subject to scrutiny by a Board of Examiners (BoE). This is composed of the Head of School, the School Director of Learning & Teaching and all staff teaching on the programme. The BoE also includes academic examiner(s) from another university with appropriate subject knowledge and examination experience. The Geomatics BoE also includes a professional examiner approved by the accrediting bodies. The role of the external examiners is to ensure standards are maintained and that all students are treated fairly.

All results, including those for course work and exams are provisional until confirmed by the BoE (which for GES normally meets at the end of May). In rare occasions this may mean adjustments to grades posted on MyCampus.

Boards of Examiners have some flexibility in permitting progress and making awards for those that fall within certain discretionary zones. The Code of Assessment gives guidance on how discretion may (and may not) be applied and specifies how an individual Board will apply discretion to be published in the Programme Handbook (see sections 10 & 11).
7. Understanding the Marking System – A Guide for Students

Basics and the University of Glasgow Grade Scheme and Criteria

These notes refer to the Code of Assessment which is used across the University so that the same rules apply for all students doing taught courses in all Colleges at all levels. The Code is in the Calendar which can be found on the Senate Office website at www.gla.ac.uk/services/senateoffice/policies/assessment/codeofassessment/.

The grades you get for your work reflect your achievement of the Intended Learning Outcomes. Schedule A of the Code of Assessment (below) includes a description of each grade in exactly these terms. Programme teams may customise these descriptions so that they are more relevant to their own subjects, so check course documentation also. There are eight grades (A to H), representing everything from full attainment of the ILOs to no attainment at all. But over such a range you need more than eight points of reference to monitor progress so the primary grades have been divided into secondary bands, usually three bands to each grade. The middle band in each grade is the default with those above and below indicating a slightly stronger or weaker performance.

Marking in numbers

Some assessments look for answers which are either right or wrong, and the number of right answers may be added up to give a mark out of, say, 50 or 100. But, when an exam of this kind is being designed, ranges of these numerical marks will be mapped to the grades and bands (A1 to H) according to how the marks reflect achievement of the ILOs.

Combining your grades

To get the overall grade for your course or programme it’s necessary to combine individual grades for exams and coursework. The fairest way of doing this is by averaging the various results while adjusting them to reflect their relative weights. To do this, the ‘B2’s, ‘C1’s, etc. are turned into scores. These scores are listed in Schedule A where you will see that H converts to 0 and A1 to 22. The Code of Assessment explains how the averages are calculated and rounded.
## Code of Assessment - Schedule A

<table>
<thead>
<tr>
<th>GRADE</th>
<th>Secondary band</th>
<th>Grade points</th>
<th>Primary verbal descriptors of Intended Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Excellent</td>
<td>A1, A2, A3, A4, A5</td>
<td>22, 21, 20, 19, 18</td>
<td>Exemplary range and depth of attainment of intended learning outcomes, secured by discriminating command of a comprehensive range of relevant materials and analyses, and by deployment of considered judgement relating to key issues, concepts and procedures</td>
</tr>
<tr>
<td>B Very Good</td>
<td>B1, B2, B3</td>
<td>17, 16, 15</td>
<td>Conclusive attainment of virtually all intended learning outcomes, clearly grounded on a close familiarity with a wide range of supporting evidence, constructively utilised to reveal appreciable depth of understanding</td>
</tr>
<tr>
<td>C Good</td>
<td>C1, C2, C3</td>
<td>14, 13, 12</td>
<td>Clear attainment of most of the intended learning outcomes, some more securely grasped than others, resting on a circumscribed range of evidence and displaying a variable depth of understanding</td>
</tr>
<tr>
<td>D Satisfactory</td>
<td>D1, D2, D3</td>
<td>11, 10, 9</td>
<td>Acceptable attainment of intended learning outcomes, displaying a qualified familiarity with a minimally sufficient range of relevant materials, and a grasp of the analytical issues and concepts which is generally reasonable, albeit insecure</td>
</tr>
<tr>
<td>E Weak</td>
<td>E1, E2, E3</td>
<td>8, 7, 6</td>
<td>Attainment deficient in respect of specific intended learning outcomes, with mixed evidence as to the depth of knowledge and weak deployment of arguments or deficient manipulations</td>
</tr>
<tr>
<td>F Poor</td>
<td>F1, F2, F3</td>
<td>5, 4, 3</td>
<td>Attainment of intended learning outcomes appreciably deficient in critical respects, lacking secure basis in relevant factual and analytical dimensions</td>
</tr>
<tr>
<td>G Very Poor</td>
<td>G1, G2</td>
<td>2, 1</td>
<td>Attainment of intended learning outcomes markedly deficient in respect of nearly all intended learning outcomes, with irrelevant use of materials and incomplete and flawed explanation</td>
</tr>
<tr>
<td>H</td>
<td></td>
<td>0</td>
<td>No convincing evidence of attainment of intended learning outcomes, such treatment of the subject as is in evidence being directionless and fragmentary</td>
</tr>
<tr>
<td>CR Credit Refused</td>
<td></td>
<td></td>
<td>Failure to comply, in the absence of good cause, with the published requirements of the course or programme; and/or a serious breach of regulations</td>
</tr>
</tbody>
</table>

Further guidance on grade related criteria and how grades are determined is available on Moodle.
8. Attendance, late submission and good cause issues

Attendance and absence reporting
As a registered student you are expected to attend classes regularly. Completion of a course involves consistent attendance at lectures, laboratories, field classes and examinations.

Attendance may be electronically recorded at classes so students should remember to carry their ID card at all times. Attendance at practical sessions, tutorials and seminars is mandatory for most courses and a record of attendance will be taken. If for some valid reason you cannot attend a class please inform the person taking the session as soon as possible and preferably in advance – this is both helpful & polite. It is your responsibility to ensure you catch up on the work that you have missed.

Absence reporting is the responsibility of each student and should be done using the Student Absence Recording System which is available in MyCampus. Where medical certificates are required, these should also be uploaded. Other legitimate reasons for absences may also arise from time to time and MUST be explained as soon as possible to the Programme Leader. University regulations require all absences to be reported and fully documented with 7 days of returning to studies.

Those falling more than 10% below full attendance without valid reasons will be warned and persistent absence will be viewed as “non-completion”, subject to approval by the Board of Examiners. Note that some residential field excursions are compulsory and non-attendance will be considered to represent non-completion of the course/programme.

In addition University regulations state that in order to gain credit for a course, students **must** complete 75% of all summatively assessed work (i.e. examinations and other assessments that test knowledge gained during the course). This includes continuous assessments as well as formal examinations. Special arrangements may be made for those with medical or other legitimate reasons for missing examinations, but each case will be treated on its merits.

(Please note in the case of those in receipt of an SAAS or other University administered scholarships, poor attendance will be reported to the funding body.)

Late submission of Coursework
The School expects students to submit coursework by the stated deadlines. If for any reason you cannot submit work on time, you should endeavour to submit the work as soon as possible. The University operates a strict regime for penalising coursework submitted late (see Code of Assessment 16.25). Where work is submitted no more than 5 working days after the deadline it will be assessed in the normal way and then 2 grade points deducted for each day or part of a day the work submitted late. Work submitted more than 5 working days late in will be awarded a grade H (zero).

If you are unable to submit work on time, but can establish just cause for this (such as illness or other appropriate circumstances), you must submit a **Good Cause** claim in MyCampus (see Senate ‘Guidance on Students Reporting Good Cause’ below). If you do not submit a claim complying with the regulations (essentially, submitting evidence within 7 days of...
returning to study), then any penalties (and their consequences) will stand. If there is a significant reason resulting in a major delay in submission, or Good Cause affects several submissions, such as having a major knock effect on subsequent submissions or other courses, you should contact your Programme Convenor or Adviser of Studies as soon as possible. If the cause is confidential or sensitive, you may approach the Programme Convenor or your Adviser of Studies to act as an intermediary for you, who will not pass on sensitive information to other members of staff.

The code of assessment makes provision for limited deferral of deadlines by the member of staff responsible for the submission. Based on evidence, the member of staff may grant an extension of the deadline or exemption from penalties for up to 5 days if they are satisfied that circumstances beyond the student’s control have, or will, prevent on-time submission. Reasons for any extension or exemption from penalties must be recorded in MyCampus. Good Cause cases are considered by the School Learning and Teaching Committee regularly. If the SLTC deem that your case has validity, the penalty will be removed or reduced appropriately.

Please note that as a general rule, ‘computer problems’ will rarely constitute Good Cause. It is your responsibility to ensure that appropriate backups of work are maintained (e.g. use of an external drive or cloud storage).

Non-submission of coursework
Coursework not submitted prior to return of feedback on the assessment has been presented to the class (individually or as a group) will be recorded as not submitted. Individual courses/assessment may have more stringent requirements governing non-submission specified in the course documentation.

The Code of Assessment requires that 75% of the assessment of a course must be completed. Non-submission of larger pieces of coursework or several smaller ones may result in credit being refused for the course (a CR grade). This is likely to jeopardise completion of the Programme.

Senate Office Guidance for Students on Reporting Good Cause / Absence
It is your responsibility to bring any factors that may have affected your academic performance to the attention of the University. Submission of a Good Cause Claim is the mechanism which allows your circumstances to be considered by the Board of Examiners. Please note all Good Cause Claims must be submitted within a week (seven consecutive days) of the date of the affected assessment.

How to submit a Good Cause Claim
1. Using MyCampus go to the ‘Student Center’ and select My Good Cause from the Academics menu.
2. Select the course(s) where assessments have been affected.
3. Complete the report in MyCampus (there is provision for particularly sensitive information to be provided separately, outwith the system, but a claim report must still be entered into MyCampus).
4. Add supporting evidence by uploading documents. (Scanners are available on Level 3 of the University Library and there may also be scanners more locally in your School or Research Institute).
What Counts as Good Cause?
The Code of Assessment which is published in Regulation 16 of the Fees and General Information section of the *University Calendar* covers incomplete assessment and good cause (paragraphs 16.45 – 16.53).

‘Good Cause’ means illness or other adverse personal circumstances affecting you and resulting in you missing an examination, or failing to submit coursework on time, or your performance in the assessment being clearly prejudiced. [Chronic illness is not covered unless there has been a short term worsening of the condition which specifically affects an assessment. If you have a long term chronic medical or mental health condition you are encouraged to register with the Disability Service if you haven’t already done so. Further information is available at www.gla.ac.uk/services/disability/].

If you were present for the examination, or submitted the assessment, but believe that illness or other personal circumstances affected your performance this must be reported as a Good Cause Claim on MyCampus.

Evidence of Good Cause
This must be in the form of a report that describes the medical condition or other adverse personal circumstances. The report should include a supporting statement from an ‘appropriate person’ as defined in the University’s Student Absence Policy. (In the event of a short-term worsening of a long-term condition, it is possible for your Disability Advisor to provide such a supporting statement if you consulted the Disability Service during the period when the difficulties were occurring.)

What will happen to your Good Cause Claim?
The Course Administrator, Course Co-ordinator and/or Good Cause Co-ordinator will ensure that your claim is considered and this will be in accordance with the section of the Code of Assessment which covers incomplete assessment and good cause (paragraphs 16.45 to 16.53). The outcome of your claim will be posted into the Approval Information section on your Good Cause Claim in MyCampus.

If it is accepted that your assessment was affected by good cause, the work in question will be set aside and you will (as far as is practicable) be given another opportunity to take the assessment with the affected attempt discounted. Please note that Boards of Examiners are not permitted to award marks on the basis of undemonstrated performance and therefore your grade(s) will not be increased because your performance was impaired by medical or other personal circumstances.

Senate Office
November 2016
Flowchart for Good Cause Claim/Absence Report choice

Absence Report or Good Cause Claim?

1. I have missed one or more classes
   - Yes
     - A summative assessment was scheduled during the class(es)
       - Yes
         - GOOD CAUSE CLAIM
       - No
     - No
   - No
2. I have missed more than seven consecutive days
   - Yes
     - The missed class(es) or lab(s) are compulsory for the award of credit
       - Yes
         - GOOD CAUSE CLAIM
       - No
         - ABSENCE REPORT
     - No
   - No
3. The class(es)/lab(s) are part of a series which has a minimum attendance level for the award of credit
   - Yes
     - ABSENCE REPORT
   - No
   - No
4. I think the absence is important, e.g., it is part of several non-consecutive days of absence
   - Yes
     - ABSENCE REPORT
   - No
     - No Report needed
5. I have missed a Scheduled Summative Assessment due to adverse circumstances
   - Yes
     - GOOD CAUSE CLAIM
   - No
6. I have missed an Assignment Deadline
   - Yes
     - I have been granted an extension of up to three working days by the Course Convenor as permitted under 15.28 of the Code of Assessment
       - No
         - ABSENCE REPORT
       - Yes
         - GOOD CAUSE CLAIM
     - No
   - No
7. I have attended exams and/or submitted assessments but believe my performance was impaired by adverse circumstances
   - Yes
     - GOOD CAUSE CLAIM
   - No

*Scheduled Summative Assessments are tests or other pieces of work which run at a specified time and place, e.g.,
- Examinations
- Class Tests
- Lab Reports
- Presentations

**Assignment Deadlines relate to essays, reports and other coursework submissions required for the award of credit.

1 If a further extension beyond three working days becomes necessary a Good Cause Claim should be made.

Revised March 2016
9. University Plagiarism Statement

Introduction
32.1 The University's degrees and other academic awards are given in recognition of a student's personal achievement. All work submitted by students for assessment is accepted on the understanding that it is the student's own effort.

32.2 Plagiarism is defined as the submission or presentation of work, in any form, which is not one's own, without acknowledgement of the sources. Plagiarism includes inappropriate collaboration with others. Special cases of plagiarism can arise from a student using his/her own previous work (termed auto-plagiarism or self-plagiarism). Self-plagiarism includes using work that has already been submitted for assessment at this University or for any other academic award.

32.3 The incorporation of material without formal and proper acknowledgement (even with no deliberate intent to cheat) can constitute plagiarism. Work may be considered to be plagiarised if it consists of:
   - a direct quotation;
   - a close paraphrase;
   - an unacknowledged summary of a source;
   - direct copying or transcription.

With regard to essays, reports and dissertations, the rule is: if information or ideas are obtained from any source, that source must be acknowledged according to the appropriate convention in that discipline; and any direct quotation must be placed in quotation marks and the source cited immediately. Any failure to acknowledge adequately or to cite properly other sources in submitted work is plagiarism. Under examination conditions, material learnt by rote or close paraphrase will be expected to follow the usual rules of reference citation otherwise it will be considered as plagiarism. Schools should provide guidance on other appropriate use of references in examination conditions.

32.4 Plagiarism is considered to be an act of fraudulence and an offence against the University Code of Student Conduct. Alleged plagiarism, at whatever stage of a student's studies, whether before or after graduation, will be investigated and dealt with appropriately by the University.

32.5 The University reserves the right to use plagiarism detection systems, which may be externally based, in the interests of improving academic standards when assessing student work.

Referral
32.6 Where a student is suspected of plagiarism[1] the member of staff shall refer the case to the Head of School[2] or his/her nominee (hereinafter referred to as Head of School) along with all appropriate documentary evidence (the piece of work in question duly marked-up, a copy of the original source of the plagiarism, information on the contribution of the piece of work to the overall assessment, etc.). Any further consideration of that piece of work by the School shall be held in abeyance until the procedures set out below have been completed. The student shall be informed in writing that his/her marks have been withheld pending an investigation of suspected plagiarism. As part of any such investigation the University may review previously assessed material and rescind published marks or grades if necessary.

32.7 The Head of School shall assess the extent of the suspected plagiarism and, if necessary, consult with the Senate Office. The Head of School will deal with suspected cases concerning non-Honours undergraduate students that are first offences and not considered to be severe. The Head of School will refer all Honours and postgraduate level
cases, all suspected second offences, and cases of severe plagiarism directly to the Senate Office for investigation under the provisions of the Code of Student Conduct.

32.8 Whilst there is no definitive list, examples of cases which would be regarded as severe plagiarism include:

i) any case of serious and or blatant plagiarism when considered in relation to the student's level of study and length of exposure to the procedures, practices and regulations of the University;

ii) a first offence where a reduction in marks would put at risk the student's degree or direct progression;

iii) any case, regardless of extent, where it is inappropriate to deal with it within a School.

Procedure before the Head of School

32.9 At all times the principles of natural justice shall be observed.

32.10 With respect to undergraduate non-Honours cases that are first offences and not considered to be severe, the Head of School shall interview the student concerned. He/she can also interview any students who have allegedly allowed their work to be copied. As soon as practicable, the student will be informed in writing of the alleged offence and of the requirement to attend for interview. The student will also be provided with a copy of the marked-up piece of work in advance of the interview.

32.11 The student shall have the right to be accompanied, assisted or represented at the interview by one of the following: a parent or guardian; a fellow student or other friend; an Adviser from the Students' Representative Council Advice Centre; a member of University staff, or any person. At the beginning of the interview, the Head of School will ascertain who is to be the spokesperson for the student (the student or a representative). The foregoing notwithstanding, the Head of School shall have the right to question the student directly, where necessary.

32.12 The Head of School shall have a member of support staff present to keep a record of the meeting.

32.13 At the interview, the student will be shown a copy of his/her work, duly marked-up and be given a clear explanation of what he/she has allegedly done. The student will be given the opportunity to justify the work and be invited to admit or deny responsibility.

32.14 If the Head of School is satisfied beyond all reasonable doubt that an offence has occurred he/she may impose an academic penalty, which will take account of the extent of the plagiarism. The Head of School may reduce the marks or results up to the point where the academic rating for the piece of work in question is reduced to grade H. Consideration will also be given to resubmission opportunities; the maximum mark that can be awarded to any resubmission is the pass mark appropriate to the degree programme being followed. The student shall be given instruction about plagiarism and the necessity of properly acknowledging and referencing sources.

If it is judged that the case is of a more serious nature than first believed, the Head of School may refer the case onwards for consideration by the Senate Assessors for Student Conduct.

32.15 If the Head of School is not satisfied that an offence has occurred but considers that the student has engaged in poor academic practice then the student should receive a warning, instruction about plagiarism and the necessity of properly acknowledging and referencing sources.

32.16 The student will be notified in writing of the outcome by the School. The School will send a copy of this letter to the Senate Office to be kept on record. The existence of a record
for a particular student will be made known to any other School seeking to assess the seriousness of other issues (see §32.6 and §32.7).

32.17 If it is judged that there is no case for the student to answer, the student will be informed in writing and the piece of work in question will be marked in accordance with normal arrangements, without penalty. The Senate Office does not need to be notified of such instances.

32.18 The Head of School shall inform the Board of Examiners of any reduction in marks. The Board of Examiners shall not have the authority to revisit or alter academic penalties imposed by this process.

Right of Appeal
32.19 The student shall have the right of appeal to the Senate Assessors for Student Conduct in respect of any penalty imposed by the Head of School. A student who wishes to appeal must do so in writing to the Director of the Senate Office within 10 working days of the date of the issue of the written decision of the Head of School.

32.20 The Senate Assessors for Student Conduct will consider an appeal against the penalty imposed by a Head of School only on the grounds that:
   i) new evidence has emerged which could not reasonably have been produced to the Head of School;
   ii) there has been defective procedure at the Head of School level;
   iii) the penalty imposed by the Head of School was clearly unreasonable.
   The letter of appeal must clearly specify the details of any new evidence, the manner in which the procedures were defective or in what respects he/she believes the Head of School has erred or been mistaken in imposing a penalty. The letter should also specify the remedy that the student seeks.

Plagiarism in the Work of a Graduate
32.21 The University will investigate any suspected case of plagiarism in the work of a graduate, which has already been assessed for an award of the University, to determine if the nature and extent of the plagiarism had been material to the award of the degree, diploma or certificate, or class within the degree.
32.22 All such cases will be considered as severe plagiarism. The Head of School will conduct an investigation and refer the case to the Senate Office in accordance with §32.7.
10. Progress

Some key points from University Regulations and Programme Specifications
For those wishing to progress to the MSc project stage or transfer from the PGD to MSc, there is a requirement to complete 120 credits of taught courses with a C3 average, including at least 90 credits at D3 or better and all at F or better. It does not matter if you are initially registered for MSc or PGD – the same progress requirement applies.

Transfer from PG Certificate to PG Diploma
To be admitted to the PG Diploma, PG Certificate candidates must normally have achieved a D3 or better grade in all 60 credits of the PG Certificate at the first attempt. Where full-time candidates plan for their studies to be continuous in one academic session, provisional registration for PGD courses may be permitted pending results of PGC courses being published, but this does not imply a right to complete these courses should admission to the PGD be refused.

Transfer from PG Diploma to MSc
To be admitted to the MSc, PGD candidates must normally achieve the requirements to progress to the MSc project stage at the first attempt.

Progress to MSc project stage
The Board of Examiners will meet towards the end of May and determine who is allowed to progress to the MSc project stage. The requirements are set out in the Regulations with certain additional constraints set by the Programme Specification.

Essentially, from the Generic regulations you require an overall average grade of C3, with at least 90 credits at D3 or better and none below E.

The additional Programme Specific regulations for progress to the MSc project for GT&C, G&MS and L&HS are:
- A minimum grade D3 is required in Fundamentals of Geomatics (resit permitted)
- A minimum grade C3 is required in Research & Professional Issues in Geomatics (resit permitted)

The additional Programme Specific regulations for progress to the MSc project for Geomatics & Management are:
- A minimum grade C3 is required in Research & Professional Issues in Geomatics (resit permitted)

Progress to Work Placement stage
A candidate will be permitted to progress to the work placement only if they have achieved:
- grade C3 or above at the first attempt in the each of the taught courses (totalling 60 credits) taken in semester 1; and
- a grade point average of 15 (equivalent to B3) or above in the 120 credits of taught courses with at least 75% of the credits at D3 or better and all credits at grade F or above.
**Reassessment**

If you do not meet the requirements to progress at the first attempt, you may be able to undertake reassessment and improve to meet the requirements for progression. The University regulations for taught Masters degrees allow for reassessment of any course where the student has below a C3 grade. To be entitled to such a reassessment, you must have met the minimum requirements for award of credit, which in general terms means that unless there is documented good cause (which has been reported in MyCampus), you must have carried out the work of the course, attended all compulsory sessions (practicals, tutorials, seminars, etc.,) and completed at least 75% of the assessment. Please note that the original grade for the course will appear on your transcript, along with the resit grade.

If you receive a C3 grade or better for a course overall, you cannot be reassessed in individual components to improve your grade.

The regulations acknowledge that certain elements cannot be reassessed, such as some practical work, field courses, etc. Individual course descriptions note any assessments that cannot be reassessed. Normally reassessments are possible for essays and examinations. Alternative practical assessments are generally not feasible, but in some circumstances a resubmission of a report will be permitted. Elements such as class presentations cannot be repeated.

Where resit examinations are required, these will be held in the resit exam period at the end of July/early August. Dates for resubmission of coursework will be notified following the Board of Examiners meeting (normally end of May).

There are slightly different regulations for the reassessment of the MSc Project – see the Generic Regulations for Taught Masters Degrees.

Note that for progress within the MSc in L&HS with WP the required grades must normally be achieved at the first attempt. Those not achieving this may transfer to the non work placement programme.

**Board of Examiners discretion on Progress**

The generic regulations are very clear about the progress requirements, but there is discretion for the Board of Examiners to allow those either with less than 120 credits, or with below the threshold grade (GPA of C3 including 90 credits at D3 or better) to commence their project with proviso that the taught course requirements must be met prior to award of MSc. In addition we have published criteria for our programmes in order to progress to the project stage noted above.

For those not achieving all the progress requirements, the Board may exercise discretion based on the following criteria:

Full time students (normally with 120 credits of taught courses) and Part-time students with >= 100 credits
• Normally those with a GPA of >= 11.7 and at least 90 credits at C3 or better, including R&PI at C3 or better, will be allowed to commence the project.
• Those with GPA < 11.7 and/or < 90 credits at C3, or less than C3 in R&PI will not be permitted to commence the project until progress requirements achieved.

Part time students with >= 60 but <100 credits of taught courses
• Those with a GPA of > 11.7, with no more than 10 credits below D3, and C3 or better in R&PI, will be allowed to commence the project.

11. Awards
The regulations and course specifications set out any requirements for the final award for the programmes. MSc programmes normally also have exit awards of PG Diploma and PG Certificate. MSc, PG Dip and PG Certificate can also be awarded with Merit or Distinction for those performing at the appropriate level.

Discretion on MSc Awards with Distinction and Merit
The basic requirements for Distinction and Merit are set out in the regulations, but for those achieving a GPA slightly below the required standard the Board of Examiners may exercise discretion as follows.

For Award of MSc with Distinction
Overall GPA 17.5 – 17.9
  Dissertation at A and taught course GPA >= 17.0 with no courses below C; or
  Dissertation at A and taught course grade profile (not credit weighted) of >= 50% of courses at A with none below C; or
  Dissertation at A and GPA for semester 2 >= 18.0 with no courses below C; or
  Dissertation >= B1 and taught course GPA >= 18.0 with no courses below C.
Overall GPA 17.1 – 17.4
  Dissertation at A and taught course GPA >= 17.5 with no courses below C; or
  Dissertation >=C1 and grade profile has >= 50% of courses at B or better (not credit weighted) with no courses below D; or
  Dissertation >= C1 and GPA for semester 2 courses > 15.0 with no S2 courses below C.

For MSc with Merit
Overall GPA 14.5 – 14.9
  Dissertation at A; or
  Dissertation >= C1 and grade profile has >= 50% of courses at B or better (not credit weighted) with no courses below D; or
  Dissertation >= C1 and GPA for semester 2 courses > 15.0 with no S2 courses below C.
Overall GPA 14.1 – 14.4
  Dissertation at A; or
  Dissertation at B and grade profile has >= 50% of courses at B or better (not credit weighted) with no courses below D.
12. GES PGT programmes 2018-19

The full Programme Specification for each programme can be found on the GES General Information for PGT Students pages on Moodle. Note that there are separate programmes specifications for each MSc, PGDip and PGCert.

The Programme Specification sets out the overall aims and intended learning outcomes of each programme, along with the required courses. The programme pages that follow here indicate the required courses for each programme. There may be minor variations for part-time students (e.g., two 10 credit courses replacing a 20 credit course). With permission of the Programme Leader, students may substitute up to 30 credits of courses provided they have achieved the intended learning outcome from previous study.

The programme pages also highlight any specific regulations applying to these programmes.
**Geoinformation Technology & Cartography**
Subject code: F846
PG Certificate, PG Diploma and MSc

<table>
<thead>
<tr>
<th>Semester 1a</th>
<th>Semester 1b</th>
<th>Semester 2a</th>
<th>Semester 2b</th>
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<tbody>
<tr>
<td>Fundamentals of Geomatics</td>
<td>Remote Sensing</td>
<td>Geospatial Data</td>
<td></td>
</tr>
<tr>
<td>GEOG5008</td>
<td>GEOG5056</td>
<td>Infrastructure &amp; Land Administration</td>
<td></td>
</tr>
<tr>
<td>20 credits</td>
<td>10 credits</td>
<td>GEOG5013</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>10 credits</td>
<td></td>
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<tr>
<td>Principles of Land Survey</td>
<td>Cartographic Design, Geovisualisation &amp; Map Use</td>
<td>Applied GIS</td>
<td></td>
</tr>
<tr>
<td>GEOG5020</td>
<td>GEOG5081</td>
<td>GEOG5102</td>
<td></td>
</tr>
<tr>
<td>10 credits</td>
<td>20 credits</td>
<td>10 credits</td>
<td></td>
</tr>
<tr>
<td>Principles of GIS</td>
<td>Topographic Mapping</td>
<td>Web &amp; Mobile Mapping</td>
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</tr>
<tr>
<td>GEOG5019</td>
<td>GEOG5025</td>
<td>GEOG5015</td>
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<td>10 credits</td>
<td>10 credits</td>
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+ 3-4 month project & report for MSc

There are no options in this programme. With permission of the Programme Convenor, students who have achieved the learning outcomes of appropriate courses by prior study may substitute up to 30 credits of alternative courses.

The Applied GIS course includes compulsory attendance at the 3 day GIS Research UK (GISRUK) conference in March/April. Conference registration and accommodation costs are included in the programme fees.

In addition to the Generic Progress Requirements, for progress to the MSc project you must achieve a minimum grade D3 is required in Fundamentals of Geomatics and a C3 is required in Research & Professional Issues in Geomatics (resit permitted).
Geospatial & Mapping Sciences
Subject code: F856
PG Certificate, PG Diploma and MSc

<table>
<thead>
<tr>
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<th>Semester 1b</th>
<th>Semester 2a</th>
<th>Semester 2b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundamentals of Geomatics</td>
<td>Geodesy &amp; GNSS</td>
<td>Applied Hydrographic Survey</td>
<td>OR Geospatial Data</td>
</tr>
<tr>
<td>GEOG5008 20 credits</td>
<td>GEOG5012 10 credits</td>
<td>GEOG5098 10 credits</td>
<td>Infrastructure &amp; L.A. GEOG5013</td>
</tr>
<tr>
<td>Principles and Practice of Land Surveying</td>
<td>Engineering Survey</td>
<td>Applied Land Surveying</td>
<td>10 credits</td>
</tr>
<tr>
<td>GEOG5017 20 credits</td>
<td>GEOG5007 10 credits</td>
<td>GEOG5099 10 credits</td>
<td></td>
</tr>
<tr>
<td>Principles of GIS</td>
<td>Topographic Mapping</td>
<td>Hydrographic Survey</td>
<td>Research &amp; Professional Issues</td>
</tr>
<tr>
<td>GEOG5019 10 credits</td>
<td>GEOG5025 10 credits</td>
<td>GEOG5014 10 credits</td>
<td>GEOG5021 10 credits</td>
</tr>
</tbody>
</table>

+ 3-4 month project & report for MSc

Students have a choice between 2 courses in semester 2b. With permission of the Programme Convenor, students who have achieved the learning outcomes of appropriate courses by prior study may substitute up to 30 credits of alternative courses.

The Applied Surveying course includes a compulsory 6 day residential survey field course held away from Glasgow towards the end of March. All costs of accommodation and transport are included in programme fees.

In addition to the Generic Progress Requirements, for progress to the MSc project you must achieve a minimum grade D3 is required in Fundamentals of Geomatics and a C3 is required in Research & Professional Issues in Geomatics (resit permitted).
**Geomatics & Management**
Subject code: FN81
MSc only

This programme combines a fixed set of courses from the Adam Smith Business School in semester 1 and a choice of Geomatics courses in semester 2.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2a</th>
<th>Semester 2b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contemporary issues in human resource management</td>
<td>Geomatics elective 1</td>
<td>Research &amp; Professional Issues GEOG5021</td>
</tr>
<tr>
<td>Managing creativity and innovation</td>
<td>MGT5210</td>
<td>Geomatics elective 2</td>
</tr>
<tr>
<td>Managing strategic change</td>
<td>MGT5215</td>
<td>Geomatics elective 4</td>
</tr>
<tr>
<td>Marketing management</td>
<td>MGT5216</td>
<td></td>
</tr>
<tr>
<td>Operations management</td>
<td>MGT5222</td>
<td>Geomatics elective 3</td>
</tr>
<tr>
<td>Project management</td>
<td>MGT5225</td>
<td>Geomatics elective 5</td>
</tr>
</tbody>
</table>

+ 3-4 month project & report for MSc

The Geomatics courses will be chosen in consultation with the Programme Convener prior to the start of semester 2.

Courses available in 2018-19 (all are 10 credits):
- Applied Cartography GEOG5026
- Applied GIS (including GISRUK conference) GEOG5102
- Applied Hydrographic Survey GEOG5098
- Applied Land Surveying (including field course) GEOG5099
- Directed Studies in Geomatics GEOG5006
- Engineering Survey GEOG5007
- Hydrographic Survey GEOG5014
- Geodesy & GNSS GEOG5012
- Geospatial Data Infrastructure & Land Administration GEOG5013
- Remote Sensing GEOG5056
- Web & Mobile Mapping GEOG5015
## Land & Hydrographic Surveying

**Subject code:** F842  
**PG Certificate, PG Diploma and MSc**

<table>
<thead>
<tr>
<th>Semester 1a</th>
<th>Semester 1b</th>
<th>Semester 2a</th>
<th>Semester 2b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundamentals of Geomatics GEOG5008</td>
<td>Geodesy &amp; GNSS GEOG5012 10 credits</td>
<td>Applied Hydrographic Survey GEOG5098</td>
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<td>20 credits</td>
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<tr>
<td>Principles and Practice of Land Surveying GEOG5017</td>
<td>Engineering Survey GEOG5007 10 credits</td>
<td>Applied Land Surveying GEOG5099 10 credits</td>
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<td>20 credits</td>
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<tr>
<td>Principles of GIS GEOG5019 10 credits</td>
<td>Topographic Mapping GEOG5025 10 credits</td>
<td>Hydrographic Survey GEOG5014 10 credits</td>
<td>Research &amp; Professional Issues GEOG5021 10 credits</td>
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</table>

+ 3-4 month project & report for MSc

There are no options in this programme. With permission of the Programme Convenor, students who have achieved the learning outcomes of appropriate courses by prior study may substitute up to 30 credits of alternative courses.

The Applied Surveying course includes a compulsory 6 day residential survey field course held away from Glasgow towards the end of March. All costs of accommodation and transport are included in programme fees.

In addition to the Generic Progress Requirements, for progress to the MSc project you must achieve a minimum grade D3 is required in Fundamentals of Geomatics and a C3 is required in Research & Professional Issues in Geomatics (resit permitted).
Land & Hydrographic Surveying with Work Placement
Subject code: F842
MSc only

<table>
<thead>
<tr>
<th>Semester 1a</th>
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<td>Research &amp; Professional Issues GEOG5021 10 credits</td>
</tr>
</tbody>
</table>

+ 6 month Work Placement for MSc

There are no options in this programme. With permission of the Programme Convenor, students who have achieved the learning outcomes of appropriate courses by prior study may substitute up to 30 credits of alternative courses.

The Applied Surveying course includes a compulsory 6 day residential survey field course held away from Glasgow towards the end of March. All costs of accommodation and transport are included in programme fees.

This programme is not covered by the generic MSc regulations, but has its own regulations in the Calendar. The key points from the regulations are noted below.

Duration of study
The normal duration for the programme is 15 months (9 months of taught courses + 6 month work placement).

Progress to work placement
A candidate will be permitted to progress to the work placement only if they have achieved:

- grade C3 or above at the first attempt in the each of the taught courses (totalling 60 credits) taken in semester 1; and
- a grade point average of 15 (equivalent to B3) or above in the 120 credits of taught courses with at least 75% of the credits at D3 or better and all credits at grade F or above.

A candidate who does not meet the requirements for progression to the work placement, or who is unable to secure an appropriate work placement, may transfer their registration to the MSc Land & Hydrographic Surveying.

Exit awards
There is no PGD or PGC exit award for this programme. Students not progressing to, or completing the work placement will be transferred to the Land & Hydrographic Surveying programme.
### Sustainable Water Environments

Subject code: F754  
MSc only

<table>
<thead>
<tr>
<th>Semester 1a</th>
<th>Semester 1b</th>
<th>Semester 2a</th>
<th>Semester 2b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring Water Environments</td>
<td>Modelling Water Environments</td>
<td>Earth Futures</td>
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<tr>
<td>GEOG5114</td>
<td>GEOG5117</td>
<td>GEOG4103</td>
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<td>20 credits</td>
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<tr>
<td>Managing Sustainable Water Environments</td>
<td>Ecology and Restoration of Water Environments</td>
<td>Environmental Statistics</td>
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<tr>
<td>GEOG5115</td>
<td>GEOG5116</td>
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+ 3-4 month project & report for MSc

The Monitoring Water Environments course includes a compulsory 5 day residential field course held away from Glasgow during Semester 1. All costs of accommodation and transport are included in programme fees.

With permission of the Programme Convenor, students who have achieved the learning outcomes of appropriate courses by prior study may substitute up to 30 credits of alternative courses. Suggested suitable courses are shown below.

In Semester 1 students will take Principles of Geographic Information Systems (GIS) and Topographic Mapping unless:

- They do not have a sufficiently strong background in statistics for STATS5031, in which case they will take an introductory course in Statistics (such as STATS3002 or equivalent) instead of either Principles of GIS or Topographic Mapping.
- They have previously taken a University of Glasgow undergraduate, or equivalent, course in Principles of GIS. In this case they will take a replacement course such as Renewable Energy ENG4173, Energy and Environment PHYS4006, Project planning, appraisal and implementation ECON5028, Theory and principles of Sustainability ECON5032

In Semester 2 students will take Remote Sensing of the Environment and Earth Futures unless they have previously taken a University of Glasgow undergraduate, or equivalent, course. In this case they will take a replacement course such as Environmental Biotechnology ENG4152 or Reclamation of Contaminated Land ENG5275.
13. University Regulations

The general regulations of the University, including codes of practice, are published in the University of Glasgow Calendar. Below is the link to the University website:
https://www.gla.ac.uk/myglasgow/senateoffice/policies/calendar/calendar2018-19/

University Fees and General Information for Students has sections pertaining to:
- Registration and Fees
- Assessment and Academic Appeals
- Student Support and Conduct Matters
- Complaints

College of Science & Engineering chapter of the Calendar provides the Regulations governing the award of degrees, including MSc, PG Dip and PG Cert.

Below for convenience is an extract of the regulations for the award of a Taught MSc, but the source document is the authoritative version.

There are separate regulations when admitted to the PG Certificate and PG Diploma – which can be found in the Calendar. There are also specific regulations for the MSc in Land & Hydrographic Surveying with Work Placement.

2018-19 Generic Regulations for Taught Masters Degree – College of Science & Engineering

The Masters degrees listed in §11 and §12 are governed by Resolution No. 552 of the University Court which came into effect on 1 October 2005, as subsequently amended, with provision that:
1. The Masters Degrees listed in §11 – §12 of the section entitled ‘Regulations’ may be awarded by the University of Glasgow in the Colleges with which these Degrees are identified in these Regulations. Degrees listed in these clauses under the title ‘SRUC (Scotland’s Rural College)’ may be awarded by the University on the recommendation of that College.
2. The Senate may make Regulations, which are subject to the approval of the University Court, governing the award of these degrees - these are stated in §1 – §10 of the section entitled ‘Regulations’.
3. The awards of Postgraduate Diploma and Postgraduate Certificate are also included in the Regulations.

REGULATIONS
A student admitted onto a programme leading to an award must follow the instructions issued on behalf of the relevant School and be aware of the content of the Programme Specification and the Programme Document (often referred to as the Programme or ‘Course’ Handbook) which will contain further details on the Programme including, in some cases, further requirements associated with the award.
1. Application of Regulations
1.1 These regulations apply without modification to the degrees listed in §11.
1.2 These regulations apply also to the degrees listed in §12 subject to alternative requirements described in the relevant Programme Document. The requirements for these degrees may vary only in respect of duration of study (§3) or progress (§7) to reflect the requirements of professional or statutory bodies.

2. Admission
Before being considered for admission to study for an award to which these Regulations apply, a candidate must normally have obtained a degree or equivalent.

3. Duration of Study
The minimum period of study for the award of a Masters degree is 12 calendar months. The maximum period for full-time study is 24 calendar months of registered study. The maximum period within which all candidates must complete the programme is five years from the date of initial registration.[1]

4. Programme Components
4.1 In order to qualify for an award in respect of the programmes specified in §11 and §12, a candidate must complete minimum credits[2] as follows:
   i) For the award of a Masters degree: 180 credits, which includes both taught courses and a 60 credit (or more) substantial independent work which should be appropriately supervised and may take the form of a dissertation or project.
   ii) For the award of a Postgraduate Diploma: 120 credits of taught courses.
   iii) For the award of a Postgraduate Certificate: 60 credits of taught courses.
4.2 The taught courses will normally be undertaken during the academic session (September – June) and are specified in the relevant Programme Document. The length and nature of the substantial independent work is as specified in the relevant Programme Document.

5. Minimum Requirement for the Award of Credits
Credits for courses contributing to a candidate’s curriculum shall be awarded subject to the fulfilment of required conditions. The minimum requirements for the award of credits are set out in the Code of Assessment at §16.40 – §16.44 of the ‘University Fees and General Information for Students’ section in the University Calendar.

6. Assessment
6.1 For each academic session, assessment and reassessment are, insofar as not modified by these regulations, governed by the Code of Assessment which is contained in the ‘University Fees and General Information for Students’ section of the University Calendar published for that session.
6.2 Courses for which the candidate has registered must be counted towards the calculation of the candidate’s grade point average for the purposes of §7, §9 and §10[3] unless other provision is justified by good cause circumstances affecting the candidate.
This regulation applies where course registration continues:
a) on the date on which the first summative assessment for that course is to be submitted; or
b) on such other date as may be specified in the course document for that course.

7. Candidates for a Masters Degree: Progress

7.1 A candidate will be permitted to progress to preparation of the substantial independent work required by the degree, only if they have obtained a grade point average[4] of 12 (equivalent to C3) or above in the taught courses described in §4 with at least 75% of the credits at grade D3 or better and all credits at grade F or above. The Programme Document may specify a course or courses in respect of which a specific grade is a minimum requirement of progression. Exceptionally, a candidate may be permitted to progress to the substantial independent work where it is judged[5] that the candidate’s performance offers a reasonable prospect of that candidate’s reaching the standard required for the award of the Masters degree following any outstanding assessment opportunities (including reassessment and remedying incomplete assessment due to Good Cause).

7.2 A candidate who has commenced study midway through an academic session will be permitted to progress to preparation of the substantial independent work, only if they have obtained a grade point average of 12 (equivalent to C3) or above in the taught courses assessed by the end of the session in which study was commenced, with at least 75% of the credits at grade D3 or better and all credits at grade F or above. The Programme Document may specify a course or courses in respect of which a specific grade is a minimum requirement of progression. Exceptionally, a candidate may be permitted to progress to the substantial independent work where it is judged[5] that the candidate’s performance offers a reasonable prospect of that candidate’s reaching the standard required for the award of the Masters degree following any outstanding assessment opportunities (including reassessment and remedying incomplete assessment due to Good Cause).

7.3 A candidate may be required to commence work on the substantial independent work before the assessment of the taught courses referred to in §4 has been completed. Such a requirement shall not indicate that the candidate has satisfied the requirements for award in relation to the taught courses. In the event that subsequently after all opportunities at assessment have been exhausted the candidate does not achieve the standard required in relation to the taught courses specified in §9.1, the candidate will not be eligible for the award of the Masters degree, and the following will apply:

If the substantial independent work has been submitted, it will be marked and a grade published.
If the substantial independent work has not been submitted but is substantially complete and no further supervisory input is required, the candidate may submit the work by the published deadline. The work will be marked and a grade published.
If the substantial independent work is not substantially complete or requires further supervisory input, the work should be discontinued and no submission made. No grade will be published for the candidate.

8. Reassessment of the Substantial Independent Work

8.1 Where a candidate requires a higher grade in the substantial independent work to satisfy the requirements set out in §9.1, reassessment of that substantial independent work will be permitted on one occasion only, under such conditions as the Examiners may prescribe in each particular case. Normally, resubmission should be no later than three
months after the date of the meeting of the Board of Examiners. There is no automatic entitlement to repeat any previous practical work associated with the substantial independent work or to undertake further practical work.

8.2 Where at the time of publication of the grade achieved on the substantial independent work a candidate has exhausted all assessment opportunities on the taught courses referred to in §4 and has failed to satisfy the standard required in relation to the taught courses specified in §9.1 for the award of the degree, a resubmission of the substantial independent work will only be permitted where the Board determines that no further supervisory input is required.

9. Requirements for the Award of a Masters Degree and Rules for Award of Distinction and Merit

9.1 A candidate will be eligible for the award of the degree on obtaining a grade point average\[4\] of 12 (equivalent to C3) or above in the taught courses described in §4, with at least 75\% of these credits at grade D3 or better, and all credits at grade F or above, and obtaining a grade D or better in the substantial independent work.

9.2 A candidate will be eligible for the award of Merit on achieving at the first attempt:

\(a\) a grade point average of 15 (equivalent to B3) or above in the 180 or more credits completed on the programme, and

\(b\) a grade point average of at least 14 (equivalent to C1) in the taught courses, and

\(c\) a grade of at least C1 in the substantial independent work.

9.3 Where a candidate has satisfied the requirements set out at §9.2 (b) and (c), and their grade point average for the 180 or more credits completed on the programme at the first attempt falls within the range 14.1 to 14.9 the Board of Examiners shall have discretion to make the award with Merit.

9.4 A candidate will be eligible for the award of Distinction on achieving at the first attempt:

\(a\) a grade point average of 18 (equivalent to A5) or above in the 180 or more credits completed on the programme, and

\(b\) a grade point average of at least 17 (equivalent to B1) in the taught courses, and

\(c\) a grade of at least B1 in the substantial independent work.

9.5 Where a candidate has satisfied the requirements set out at §9.4 (b) and (c), and their grade point average for the 180 or more credits completed on the programme at the first attempt falls within the range 17.1 to 17.9 the Board of Examiners shall have discretion to make the award with Distinction.

10. Requirements for the Award of a Postgraduate Diploma or Postgraduate Certificate and Rules for Award of Distinction and Merit

10.1 The requirement for the award of a Postgraduate Diploma is a grade point average\[4\] of 9 (equivalent to D3) in 120 credits, with not less than 80 of these credits at grade D or above.

10.2 The requirement for the award of a Postgraduate Certificate is a grade point average of 9 (equivalent to D3) in 60 credits, with not less than 40 of these credits at grade D or above.

10.3 A candidate who has achieved at the first attempt a grade point average of 15 or 18 will be eligible for the award of Postgraduate Diploma or Postgraduate Certificate with Merit or Distinction respectively.
10.4 Where a candidate has achieved at the first attempt a grade point average of between 14.1 and 14.9 or between 17.1 and 17.9 the Exam Board shall have discretion to make the award of Postgraduate Diploma or Postgraduate Certificate with Merit or Distinction respectively.

11. Degrees[6] to which these Regulations Apply
The following degrees are governed by the above regulations:

College of Science & Engineering:

- Master of Research (MRes) Human Geography
- Master of Science (MSc) Geoinformation Technology & Cartography
- Master of Science (MSc) Geomatics & Management
- Master of Science (MSc) Geospatial & Mapping Sciences
- Master of Science (MSc) Land & Hydrographic Surveying
- Master of Science (MSc) Sustainable Water Environments

[1] For programmes with a minimum period of study of three years, the maximum period within which candidates must complete the programme is six years from the date of initial registration. Where a candidate has progressed to study under §8 of the Generic Regulations for Postgraduate Certificates and Diplomas that candidate’s duration of study for the Masters degree shall be counted as the period since first registration for the Postgraduate Certificate or Diploma.

[2] In compliance with the Scottish Credit and Qualification Framework a minimum component of the total credit must be gained from Masters level courses (Level M/SCQF Level 11) as follows: 150 credits for a Masters Degree, 90 credits for a Postgraduate Diploma, 40 credits for a Postgraduate Certificate.

[3] Except for §10.2 and §10.3 where only 60 credits will be counted in the calculation of the grade point average for a Postgraduate Certificate, and any excess credit will be discarded in such a way as to maximise the grade point average while meeting all other requirements of the regulations.

[4] The grade point average is determined with reference to the schedule of grades and grade points contained in Schedule A and Schedule B of the University’s Code of Assessment. The grade point average is calculated by taking the product of each course’s weight and the candidate’s grade points and dividing the sum of these products by the sum of the courses’ weights. The weights shall correspond to the courses’ credit ratings unless specified otherwise in the relevant programme documentation. The grade point average is expressed to one decimal place (§16.34(a) of the Code of Assessment). In determining whether a candidate has satisfied requirements in relation to progress and award, no further rounding is permitted. For example, a grade point average of 11.9 would not satisfy a requirement for a grade point average of 12.

[5] This judgment is normally made by the Board of Examiners or in cases where there is no scheduled meeting, the Convener of the Board of Examiners.

[6] Each of these degree programmes also offer awards of Postgraduate Diploma and Postgraduate Certificate with the same title (see §10).